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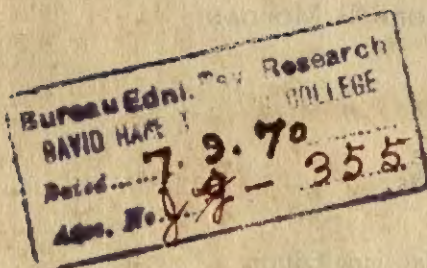
ELIZABETH REED



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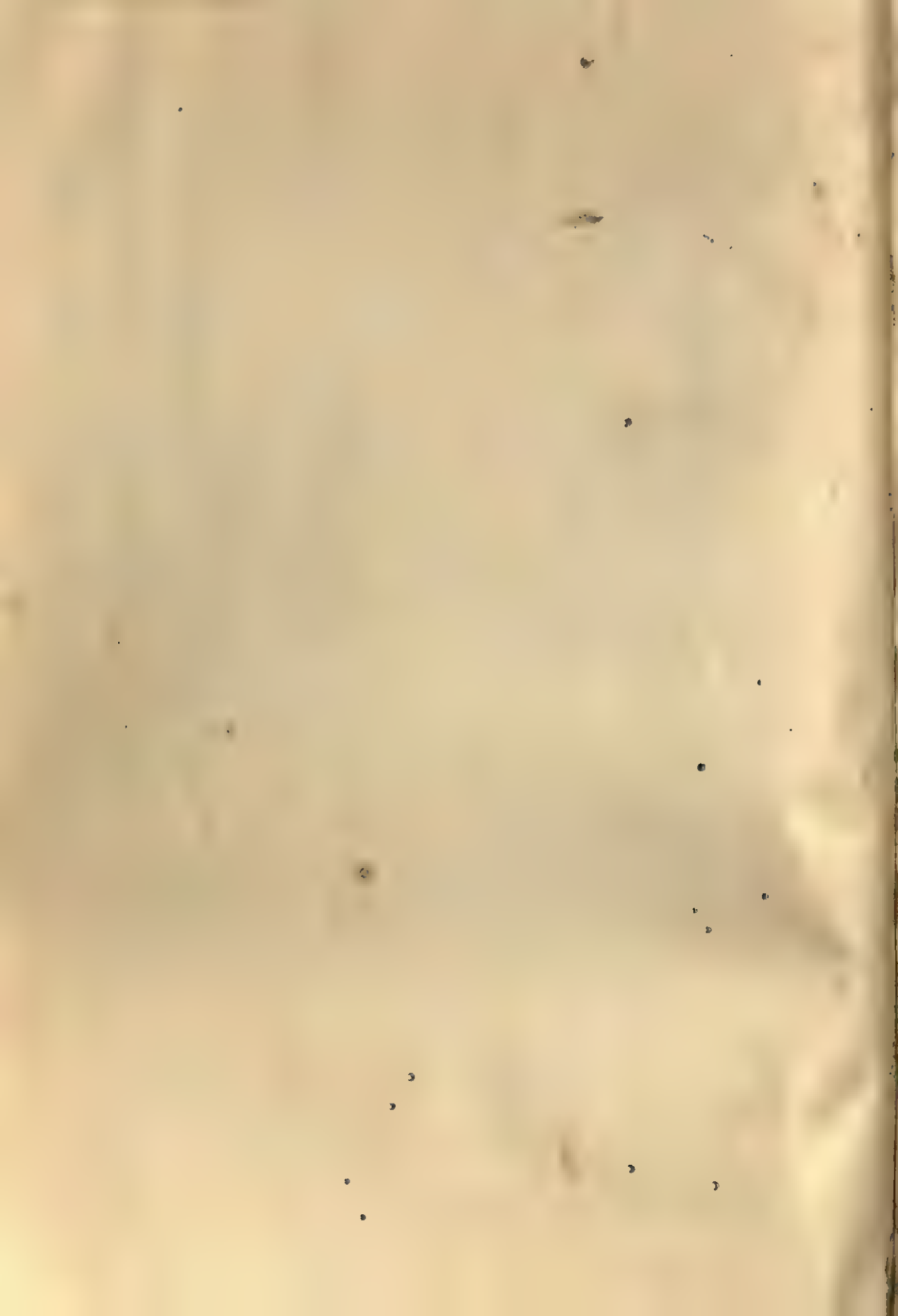
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Psychological Abstracts

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NUMBER 1

EDITORIAL NOTE

The system of coding abstracts by letters and numbered employed in the 1962 volume proved to be so cumbersome for readers that it has been abandoned. In this and subsequent issues of the 1963 volume, we return to the former practice of numbering abstracts serially in the order of their appearance.

GENERAL

1. Eisner, H. **A generalized network approach to the planning and scheduling of a research project.** *Operat. Res.*, 1962, 10, 115-125.—The decision box (db) network is a generalization of the PERT network; it allows alternative procedures for accomplishing certain research tasks. When probabilities are assigned to alternatives, the probabilities of various outcomes may be estimated. "Standard PERT techniques for time estimating and scheduling, superimposed on the db network structure, complete the description of this research management tool."—M. R. Marks.

2. Murray, Henry A. **Prospect for psychology.** *Science*, 1962, 136(3515), 483-488.—A vision of the future, as reconstructed after one encounter with the hallucinogenic drug psilocybin.—*Journal abstract.*

OBITUARIES

3. Brogden, W. J. (U. Wisconsin) **Elmer Augustine Kurtz Culler: 1880-1961.** *Amer. J. Psychol.*, 1962, 75(1), 155-160.—Obituary.—R. H. Waters.

4. Fordham, M. C. G. **Jung: 26 July 1875 to 6 June 1961.** *Brit. J. Med. Psychol.*, 1961, 34, 167-168.—Obituary and portrait.—C. L. Winder.

5. Main, T. F. **Klein, Melanie: 30 March 1882 to 22 September 1960.** *Brit. J. med. Psychol.*, 1961, 34, 163-166.—Obituary and portrait.—C. L. Winder.

HISTORY & BIOGRAPHY

6. Ansbacher, Heinz L. **Rudolf Hildebrand: A forerunner of Alfred Adler.** *J. indiv. Psychol.*, 1962, 18(1), 12-17.—The author of a quotation given prominence in Adler's 1st major book is revealed. "When Hildebrand conceptualizes certain psychological processes it sometimes seems that only the specific names by which Adler designated them are lacking." Some similarities between the 2 men are presented.—A. R. Howard.

7. Braatan, Leif J. **Carl R. Rogers: Grunnleggeren av klient-sentrert rådgivning og psykoterapi.** [Carl R. Rogers: The founder of client-centered counseling and psychotherapy.] *Nord. Psykol.*, 1961, 13(7), 289-295.—"... a survey of Rogers' contribution to psychology based upon several years of first hand co-operation with him. The paper describes his career and most significant books, his present

therapeutic orientation, his theory of personality, and some selected research findings."—L. Goldberger.

8. Brill, A. A. **Freud's contribution to psychiatry.** New York: Norton, 1962. 244 p. \$1.45 (paper).—A paperback edition of the book first published in 1944.—E. Y. Beeman.

9. Cardno, J. A. (U. Tasmania) **Inclusion, exclusion, emphasis: Selection in the history of psychology.** *Psychol. Rec.*, 1961, 11, 321-331.—The focus of the paper is on what the historian does and what he should do. "Principles of selection as suggested by the terms used [in the title], are outlined. Evaluation is identified as being more objective than personal interest, but less so than scientific sampling, through the presence of accident, not chance. Sampling proper, it is suggested, will not be feasible while accident remains a constituent of selection, and while the unit of treatment (e.g., author, work) remains literary, not scientific." The paper concludes with a suggestion for genuine, scientific units as the basis for historical studies.—R. J. Seidel.

10. de Ajuriaguerra, Julien, & Angelergues, René. **De la psycho-motricité au corps dans la relation avec autrui.** [Psychomotor functions in interpersonal relations.] *Evolut. psychiat.*, 1962, 27(1), 13-25.—Wallon's unique contribution was the postulation that psychomotor functions have a structural unity which is due to neither biological determinism nor the environment. Furthermore, interpersonal relationships begin on an advanced level with the simultaneous onset of speech and improved psychomotor function. According to Wallon, this phase represents a "tonic dialogue" which involves physical and psychic personality characteristics in affective communication. (English summary)—L. A. Ostlund.

11. Hare, E. H. (Bethlem Royal & Maudsley Hosp., London, England) **Masturbatory insanity: The history of an idea.** *J. ment. Sci.*, 1962, 108, 1-25.—The history of an hypothesis in psychiatry encompasses only 250 years, including full fruition and acceptance among medical men and decline and obsolescence. Conservatism, poverty of skepticism, choice of biased samples, the therapeutic fallacy, and the influence of a prediction upon the event it predicts are adduced to explain scientific popularity of an hypothesis and to illustrate how opinion can go astray, even within educated physicians and scientists. (100 ref.)—W. L. Wilkins.

12. Hendrick, Ives. (Ed.) **The birth of an institute.** Freeport, Me.: Bond Wheelwright, 1961. xiv, 164 p. \$5.00.—The essays which comprise this volume were first presented at the Twenty-Fifth Anniversary of the Boston Psychoanalytic Institute, November 30, 1958. Hendrick surveys the history of psychoanalysis in Boston. Bertram Lewin discusses the organization of psychoanalytic education, historical and current. Karl Menninger gives an

account of his experiences as a student of medicine at Harvard and of his initiation into psychiatry by E. E. Southard. There are concluding remarks by John Milne Murray and a list of former officers of the Boston Psychoanalytic Institute and Society.—*W. A. Varvel.*

13. Heuyer, Georges. *L'influence medicale et psychiatrique dans l'oeuvre de Henri Wallon.* [Medical and psychiatric influences in the work of Henri Wallon.] *Evolut. psychiat.*, 1962, 27(1), 91-99.—Wallon's profound influence on medicine and psychiatry is outlined. Based on the objective analysis of normal and pathological Ss, Wallon explained the successive differentiations and the progressive maturation which adapts the individual to his milieu. This theme is presented and documented in a chronological sequence.—*L. A. Ostlund.*

14. Minkowski, Eugene. *L'humanisme de Henri Wallon.* [The humanism of Henri Wallon.] *Evolut. psychiat.*, 1962, 27(1), 3-12.—The personal and professional life of Henri Wallon indicates a humanistic trend. This theme is elaborated in references to Wallon's activities and publications.—*L. A. Ostlund.*

15. Piéron, Henri. *Sur le chemin des applications sociales de la psychologie.* [Along the road of social applications of psychology.] *Evolut. psychiat.*, 1962, 27(1), 151-159.—The author writes a moving, personal tribute to his colleague, Henri Wallon, also an octogenarian. This biographical sketch, presented in chronological order, contains overtones of the development of psychological thinking and research in France, in the context of historical events during the past 60 years.—*L. A. Ostlund.*

16. Rittmeister, J., & Storch, A. *Die mystische Krise des jungen Descartes: Mit einem Nachtrag zur heutigen Beurteilung Descartes.* [The mystical crisis of young Descartes: With an addendum on Descartes today.] *Confin. psychiat.*, Basel, 1961, 4, 65-98. The dreams of Descartes in the midst of his youthful crisis show him struggling to establish the S as an active knower in a world that had depended on revealed knowledge. Since Descartes we have newly realized that the actively knowing self exists "in-the-world," and not detached from the world as studied by the natural sciences. Not to blame Descartes for our present problems with science and technology but to maintain the actively knowing attitude in the midst of new discoveries of how personal identity exists within the world is our task today. In doing this we achieve for our time what Descartes did for his.—*E. W. Eng.*

17. Rotter, Julian B. *An analysis of Adlerian psychology from a research orientation.* *J. indiv. Psychol.*, 1962, 18(1), 3-11.—Some limitations of individual psychology and some suggestions for research based upon hypotheses derived from it.—*A. R. Howard.*

18. Schipperges, H. *Zur Psychologie und Psychiatrie des Petrus Hispanus.* [On the psychology and psychiatry of Peter of Spain.] *Confin. psychiat.*, Basel, 1961, 4(3/4), 137-157.—Peter of Spain's 13th-century commentaries on the medieval "De Anima" literature going back to Aristotle present a view of human nature more sophisticated than the one we customarily associate with the medieval period. He emphasizes bodily factors in the genesis of psycho-

pathological conditions, and his suggestions for therapy are free from practices of sympathetic magic.—*E. W. Eng.*

19. Sokolov, M. V. (Ed.) *Iz istorii russkoj psikhologii.* [From the history of Russian psychology.] Moscow, USSR: RSFSR Academy Pedagogical Sciences, 1961. 439 p.—The essays in this book explore periods in history of Russian psychology ranging from the 14th to the early 20th century.—*I. D. London.*

20. Wyatt, Frederick. (U. Michigan) *A psychologist looks at history.* *J. soc. Issues*, 1961, 17(1), 66-77.—A discussion of the generally ahistorical, segmental, experimental approach espoused by psychologists as contrasted with the generally more global and synthetic approach of the historian, particularly in studying the sweep and scope of social change.—*A. Barclay.*

THEORY & SYSTEMS

21. Borgatta, E. F. (U. Wisconsin) *Toward a methodological codification: The shotgun and the saltshaker.* *Sociometry*, 1961, 24, 432-435.—"The first question is that, given the multitude of findings that occur when a great many questions are asked, how does one find out which ones are the stable or important ones? And second, is it worth theorizing after the fact?" As to the 1st question the traditional procedure requires the E to revise his theory, while the shotgun researcher can immediately go to his data and reject much that the traditional researcher must continue to test. With respect to the 2nd question, it is not a matter of whether theory should be built on a post hoc basis, but rather that there is no other alternative.—*H. P. Shelley.*

22. Findley, Jack D. (U. Maryland) *An experimental outline for building and exploring multi-operant behavior repertoires.* *J. exp. Anal. Behav.*, 1962, 5(1, Suppl.), 113-166.—"The material to follow represents, in part, the results of several years of laboratory effort in which the pursuit of behavioral control progressively took precedence over the statement of problems and answers, and in which it was often pursued in their absence. The major result of this effort has been a demonstration that it is feasible to build, describe, and manipulate complex samples of behavior under controlled conditions, on a scale limited only by our individual laboratory behavior. . . . to do so is in many ways basic to the building of a science of behavior. The following sections are concerned with: first, the nature of multi-operant behavior and general problems of its establishment and analysis; second, the conceptual and notational description of multi-operant behavior; and, finally, the reporting of the laboratory story which largely generated the notions and points of view presented below." (20 ref.)—*J. Arbit.*

23. Herbst, P. G. (Inst. Industrial Social Research, Trondheim, Norway) *A theory of simple behaviour systems. Part II.* *Hum. Relat.*, 1961, 14(3), 193-239.—The presentation of a behavior theory is continued from a previous paper (see 36: 2AD71H). The quantitative formulation is expanded by 7 principles dealing with the following relations: (a) output as a function of activity rate and integration level, (b) the effect of stress on output components, (c) performance satisfaction as a

function of output versus cost, (d) strain and balance as a function of action potential, (e) strain as a condition of imbalance between action level and action potential, (f) the effect of stress on output as a function of action potential, and (g) the effect of stress on strain and external adjustment processes. (59 ref.)—*W. W. Meissner*.

24. Hirschman, Albert O., & Lindblom, Charles E. (Columbia U.) **Economic development, research and development, policy making: Some converging views.** *Behav. Sci.*, 1962, 7(2), 211-222.—Recent work on economic development, technological research and development, and policy-making challenges some widely accepted generalizations about the process of problem solving and decision making. It is argued that a carefully thought-out plan for research may hinder achievement of the desired goal, and that it may, at times, be easier to solve a problem when the problem is not fully understood.—*J. Arbit*.

25. Meissner, W. W. (Woodstock Coll.) **Intervening constructs: The problem of functional validity.** *Psychol. Rec.*, 1961, 11, 355-364.—The classic paper by MacCorquodale and Meehl (1948) which attempted to distinguish between the functional status (IV) and structural basis (HC) of theoretical concepts is used as the point of departure. The discussion focusses upon the methodological problem of functional validity and develops the point that IV and HC have distinct, equally important roles to play in theory development.—*R. J. Seidel*.

26. Toda, Masanao. (Hokkaido U., Sapporo, Japan) **The design of a fungus-eater: A model of human behavior in an unsophisticated environment.** *Behav. Sci.*, 1962, 7(2), 164-183.—The characteristics of the model and its interactions with the environment are discussed and a number of problems raised for further analysis.—*J. Arbit*.

PHILOSOPHY

27. Bakan, M. **Some aspects of the relationship between psychology and philosophy.** *Percept. mot. Skills*, 1962, 14, 260-262.—Several aspects of the relationship between psychology and philosophy are considered. Brand Blanshard, an idealist, is the focus of discussion.—*W. H. Guertin*.

28. Beth, E. W., & Piaget, Jean. **Épistémologie mathématique et psychologie.** [Mathematical epistemology and psychology.] Paris, France: Presses Univer. France, 1961. 352 p. NF 22.—A detailed analysis by a logician and a psychologist leading to the view that logic and mathematics on the one hand and psychology on the other are completely autonomous disciplines. This independence implies the necessity for renouncing all "psychologizing" in logic and mathematics and all "logicizing" in psychology to guarantee autonomy of research in the respective domains. Such a view creates epistemological problems since any effort to develop a scientific epistemology as opposed to a purely speculative one demands that a certain coordination be established between logic and psychology. These 2 activities interacting with each other as they do, not because they are interdependent but because they are autonomous and complimentary, make possible and necessary the search for an epistemological synthesis. (137 ref.)—*G. H. Mowbray*.

29. Buber, Mordekhay Martin. **Ketavim pilosofiyim. I. Besod siah.** [Philosophical writings. Vol. I. Intimacy of dialogue: The man and encounter with the being.] Jerusalem, Israel: Bialik Institute, 1959. 261 p.—In this 1st volume of the author's philosophical writings in Hebrew, parts of a theory are mentioned which explain man's double encounter with existence and make it clear by concrete examples.—*H. Ormian*.

30. Buber, Mordekhay Martin. **Ketavim pilosofiyim. II. Peney haadam.** [Philosophical writings. Vol. II. Man's countenance: Discourses in philosophical anthropology.] Jerusalem, Israel: Bialik Institute, 1962. 433 p.—In this, the 2nd and last volume, 2 kinds of writings are given. They are intended to base the system both on the point of view of the history of thinking and on the point of view of anthropology. "Not an abstract philosophical system is given, but the basic reality, which man must today see properly."—*H. Ormian*.

31. Emmerglick, Leonard J. (Washington, D. C.) **Open vision in science.** *Main Curr. mod. Thought*, 1962, 18(3), 51-54.—A plea for greater awareness of the importance of the creative aspect of scientific enterprise. This means highlighting imaginative speculation, trying on new assumptions, and attempting new generalizations and integrations as opposed to being merely fact centered.—*J. R. Royce*.

32. Fitzpatrick, W. H., & DeLong, C. W. (National Inst. Health) **Soviet medical research related to human stress: A review of the literature.** Washington, D. C.: United States Department Health, Education, & Welfare, Public Health Service, 1961, (PHS Publ. No. 853) 121 p. \$40.—Material in this report includes data on human stress published by Soviet scientists between 1950 and December 1958. Contents include studies on external biological factors related to stress, internal factors, and factors affecting the nervous system and behavior.—*E. M. Bower*.

33. Gendlin, Eugene T. **Experiencing and the creation of meaning: A philosophical and psychological approach to the subjective.** New York: Free Press Glencoe, 1962. xv, 302 p. \$6.00.—A detailed "analysis of meaning" is offered, based on an examination of "the functions of experience and of symbols in relation to each other." The analysis is applied to psychotherapy, art, religion, and social theories.—*R. Tyson*.

34. Greenspoon, J. (Florida State U.) **Perspectives in psychology: XIX. Private experience revisited.** *Psychol. Rec.*, 1961, 11, 373-381.—A review of the position taken by many psychologists on private vs. public experience. The author concludes that the difficulty in dealing with the concept of "private experience" is that it represents a false point of departure for any science and particularly for psychology. "Psychologists have tended to use experience as the starting point, but the difficulties of experience as the starting point are readily observable in the confusion which has evolved. The starting point for psychology could just as readily be designated as behavior; and that is all."—*R. J. Seidel*.

35. Harman, Willis W. (Stanford U.) **The humanities in an age of science.** *Main Curr. mod. Thought*, 1962, 18, 75-83.—Defines humanities as "primarily concerned with man's inner or subjective life." The spirit of inquiry is similar in both domains.

Just as science attempts to order our understanding of the outer or objective world, the humanities attempt to order the inner or subjective world. The author, a physical scientist, suggests that the contemporary scientific world view is too restrictive (e.g., too physicalistic, too impressed by that which is quantifiable, etc.), especially in its exclusion of the "mental" order. Humanistically oriented scholars must spearhead the development of valid research methods which can deal with inner man. "Its language will be more that of the poet than of the mathematician, for the knowledge to be ordered has to do with feelings as well as thoughts, and the symbols to be used are not subject to mathematical manipulation. Its methodology will be different, for the investigator must be willing to become the instrument of investigation."—*J. R. Royce.*

36. C. G. Jung Institute. (Zurich, Switzerland) *Das Böse.* [Evil] Zürich, Switzerland: Rascher, 1961. 261 p. S. Fr. 27.50.—In a 1959-60 lecture series at the C. G. Jung Institute, the central topic of "evil" was considered in relation to mythology (K. Kerényi), eastern religions (G. Widengren), anti-Christ (V. Maag), fairy tales (M. L. von Franz), films (M. Schlappner), psychological notions (L. Frey-Rohn), philosophical concepts (K. Löwith), and creativity (K. Schmid).—*H. P. David.*

37. Paunero, Enrique. *Dilthey, Kant y la psicología de la totalidad.* [Dilthey, Kant and the psychology of totality.] *Acta neuropsiquiat. Argent.*, 1961, 7(4-5), 272-279.—The Cartesian separation of the object and the subject, and the Kantian refusal to admit the knowability of existing objects gave rise to a psychology which denied the spiritual "I" and recognized only behavior as the valid basis of psychology. Dilthey, followed by Jaspers, opposed such atomizing psychologism with a more holistic and existential approach to understanding human activity, which embraces the psychosomatic and spiritual dimension of man in a total conception.—*W. W. Meissner.*

38. Smith, Kendon. (U. North Carolina) *The naturalistic conception of life.* *Amer. Scientist*, 1958, 46, 413-423.—Life is defined in objective terms. A naturalistic view of living objects is briefly stated and defended; and implications are derived for issues of emergence, determinism and indeterminism, choice, conscious experience, and ethical decision.—*Author abstract.*

39. Zeh, Wilhelm. *Die Raumzeit-Gestalt der Erinnerung.* [The spatiotemporal gestalt of remembrance.] *Confin. psychiat., Basel*, 1961, 4(3/4), 165-193.—A variety of evidence speaks for the basically spatial character of memory experience: the spatial character of several psychological metaphors, the findings of Stern on the priority of spatial over temporal perception in the small child, the simultaneity of successive events in experienced memory, and the findings of W. Metzger. The metrical space of physics is a remote derivative of experienced space the latter occurs in remembrance as a spatiotemporal gestalt constitutive of experienced order, situation, and responsibility.—*E. W. Eng.*

STATISTICS

40. Boring, Edwin G. (Harvard U.) *The beginning and growth of measurement in psychol-*

ogy. In Harry Woolf (Ed.), *Quantification: A history of the meaning of measurement in the natural and social sciences* (see 37: 56). Pp. 108-127.—The history of quantification in psychology is written in 4 parts: (a) psychophysics, "which may be thought of as founded in 1860 with the publication of Fechner's *Elemente der Psychophysik*, but which goes back nearly a hundred years more"; (b) the history of reaction time and "Psychology's self conscious effort to become 'founded' as a new experimental science"; (c) the measurement of learning and remembering, flourishing first as stimulated by Ebbinghaus in the 1880s, then strongly influenced by Thorndike, Pavlov, and Skinner; and (d) the measurement of individual differences (beginning with Galton, Cattell, and Benet) and its offshoot, statistical methods.—*E. Y. Beeman.*

41. Hammond, Kenneth R., & Householder, James E. (U. Colorado) *Introduction to the statistical method: Foundations and use in the behavioral sciences.* New York: Knopf, 1962. xvi, 417 p.—This beginning text addresses itself "to the logic of the statistical method for its own sake . . . irrespective [of] immediate application." It includes chapters on: generalizations, induction, and variability; measurement and mathematics; central tendency; variability; individual performance; correlation; a model of randomness; random sampling distributions; and statistical decisions. Problems accompany each chapter, with answers appended.—*E. B. Page.*

42. Hoffman, Paul J. (Oregon Research Inst., Eugene) *Assessment of the independent contributions of predictors.* *Psychol. Bull.*, 1962, 59(1), 77-80.—In answer to comments by Ward (see 37: 1294) an effort is made to clarify the term "independent contribution." Whereas Ward's use is more ordinarily known as the part correlation, Hoffman means "that the variance of predicted scores may be successfully partitioned into a simple sum of ingredients, each referring to a specific predictor and each being independent of any joint effect or interaction."—*W. J. Meyer.*

43. Hundleby, John Dennis. (Pennsylvania State U.) *Item characteristics and skewness of observed score distributions.* *Dissert. Abstr.*, 1961, 22(1), 333.—*Abstract.*

44. Kaiser, Henry F. (U. Illinois) *Scaling a simplex.* *Psychometrika*, 1962, 27(2), 155-162.—A least-squares solution for scaling the variables of a Guttman simplex is developed. The procedure yields a ratio scale and 2 varieties of interval scale and orders the variables. A measure of the goodness of fit of the scale to the data is suggested. An example of the application of the method is given. The problem of non-positive correlations is discussed.—*Journal abstract.*

45. Kaiser, Henry F., & Dickman, Kern. (U. Illinois) *Sample and population score matrices and sample correlation matrices from an arbitrary population correlation matrix.* *Psychometrika*, 1962, 27(2), 179-182.—A method for generating sample and population score matrices and sample correlation matrices from a given population correlation matrix is developed. An example giving the desired matrices for a population Guttman simplex correlation matrix is presented.—*Journal abstract.*

46. Levi, Isaac. (Western Reserve U., Cleveland) **On the seriousness of mistakes.** *Phil. Sci.*, 1962, 29(1), 47-65.—"The argument from statistics in favor of behavioral view is outlined; an interpretation of two statistical procedures (Bayes' method and significance testing) is offered which does not entail a behavioral analysis of 'accepting a hypothesis'; and the conclusion that non-behavioral analyses of belief are compatible with the application of current statistical theory in the sciences is tentatively advanced." Conventions concerning statistical inference and decision may differ but the differences are those of "degrees of caution" as expressed among investigators and, as such, are subject to strict logical analysis.—*M. Turner.*

47. Mack, Sidney F. (Pennsylvania State U.) **Elementary statistics.** New York: Holt, Rinehart & Winston, 1960. ix, 198 p. \$4.50.—Topics discussed are: mathematics refresher, summarization of data, fundamentals of probability, probability distributions, the normal distribution, the sample mean and standard deviation, statistical estimation, testing hypotheses, the chi-square and "student's" distributions, and linear correlation and regression. Greek alphabet; computational methods and formulas for use with a desk calculator; and tables of squares of numbers 1.00 to 9.99, standard normal curve areas, chi-square percentiles, and "student's" curve areas are included.—*G. C. Carter.*

48. McNemar, Quinn. (Stanford U.) **Psychological statistics.** (3rd ed.) New York: Wiley, 1962. vii, 451 p. \$7.75.—Designed for an intermediate course, the aim is to give a concise coverage of the statistical techniques needed in behavioral sciences. "The stress continues to be on interpretations and assumptions rather than on computations." A chapter on trend analysis and more challenging exercises have been added, as have several other smaller topics and recent developments.—*E. Y. Beeman.*

49. Prokasy, W. F. (Pennsylvania State U.) **Inference from analysis of variance of ordinal data.** *Psychol. Rep.*, 1962, 10(1), 35-39.—From consideration of the 3 possible sources of inference in a 2-way analysis of variance, it is concluded that "the analysis of variance model is neither to be denied application if the data are ordinal nor to be used as a general source of inference about psychological attributes in disregard of the level of measurement employed."—*B. J. House.*

50. Ray, W. S. (U. North Carolina) **Statistics in psychological research.** New York: Macmillan, 1962. vi, 303 p. \$6.00.—This introductory text uses the linguistic distinctions between syntactics, semantics, and pragmatics in order to help the student understand statistics. A review of basic arithmetic and algebra, summation sign, movements, product moments, partial and multiple correlations, analysis of variance, sampling theory, and sampling distributions make up the syntactic realm. Measurement and practical random sampling are treated as semantic problems, and the description of data by means of moments and product moments, and statistical inference are the pragmatic issues. The difference between empirical and experimental research is emphasized.—*W. J. Koppits.*

51. Scott, W. A., & Wertheimer, M. **Introduction to psychological research.** New York: Wiley,

1962. xiii, 445 p.—A textbook designed for the 1st level graduate student which provides a step-by-step introduction to the rituals involved in the course of a typical research project. The material is organized and presented in terms of the following topics: research process: an overview; initial stages in a research project; conditions for generalizing findings; control over research variables; developing quantitative measures; instrumentation: verbal measures; instrumentation; experimental equipment; instrumentation: human judgment; sample design; experimental design; obtaining and dealing with subjects; arrangements for data collection; analyzing the results; and interpreting and reporting the results.—*M. J. Wayner, Jr.*

52. Smith, H., Gnanadesikan, R., & Hughes, J. B. **Multivariate analysis of variance (MANOVA).** *Biometrics*, 1962, 18(1), 22-41.—An illustration of the methods of analysis and interpretation of several dependent variables using Model I of MANOVA. The basic theory is summarized, including tests of significance and confidence interval estimation. An outline of a computer program is presented. Some unresolved problems are discussed. (26 ref.)—*R. L. McCornack.*

53. Tobach, E., Schneirla, T. C., & Aronson, L. R. (American Museum Natural History) **The ATSL: An observer-to-computer system for a multivariate approach to behavioral study.** *Nature, London*, 1962, 194, 257-258.—A data-collection and recording system is described which can be processed by a digital computer with appropriate programming and which can be used in any behavioral experiment utilizing either observer-generated or animal-generated data or both.—*M. Benton.*

54. Vandenberg, Steven G., Green, Bert F., & Wrigley, Charles F. (U. Louisville) **A survey of computer usage in departments of psychology and sociology.** *Behav. Sci.*, 1962, 7(1), 108-110.—The extent of computer use and training offered in computer usage in 127 psychology departments and 29 sociology departments is reported.—*J. Arbit.*

55. Wilks, Samuel S. (Princeton) **Mathematical statistics.** New York: Wiley, 1962. xvi, 644 p. \$15.00.—This introductory text book includes: distribution functions, moments and sequences of random variables, selected discrete and continuous functions, sampling theory, parametric and nonparametric estimation and hypotheses testing, sequential analysis, decision functions, time series, and multivariate theory.—*E. Y. Beeman.*

56. Woolf, Harry. (Ed.) **Qualification: A history of the meaning of measurement in the natural and social sciences.** Indianapolis, Ind.: Bobbs-Merrill, 1961. 224 p.—The book contains 7 chapters by different authors on the progress of quantification in the physical and medical sciences, biology, economics, sociology, and psychology.—*E. Y. Beeman.*

Experimental Design

57. Edwards, Allen. (U. Washington, Seattle) **Experimental design in psychological research.** (Rev. ed.) New York: Holt, Rinehart & Winston, 1960. xiii, 398 p. \$6.50.—A revised edition of the 1950 text. Many changes have been made in the arrangement and presentation of material. Several new chapters have been added, including chapters on

multiple comparison tests, randomized blocks design, trend analysis, and analysis of variance models and mean square expectations. As in the 1st edition, problems are presented at the end of each chapter, the answers for which are given in an appendix.—*E. Y. Beeman.*

58. Maxwell, A. E. (U. London) **Binomial sequential analysis: Good ethics, little effort.** *Educ. psychol. Measmt.*, 1962, 22(1), 57-69.—"... psychological and medical experiments are often conducted in a sequential manner as subjects suitable for the experiment become available. When this is so, both ethical and statistical problems arise. . . . binomial sequential techniques are reviewed and an attractive new method is described which requires no calculations to be performed and which allows the investigator to fix his sample size in advance."—*W. Coleman.*

59. Winer, B. J. **Statistical principles in experimental design.** New York: McGraw-Hill, 1962. x, 672 p. \$12.50.—A detailed description of the basic principles, standard experimental designs, and their potential applications in research areas in the behavioral sciences. The material is organized in terms of: basic concepts in statistical inference, testing hypotheses about means and variances, design and analysis of single-factor experiments, single-factor experiments having repeated measures on the same elements, design and analysis of factorial experiments—computational procedures and numerical examples, multifactor experiments having repeated measures on the same elements, factorial experiments in which some of the interactions are confounded, balanced lattice designs and other balanced incomplete-block designs, Latin squares and related designs, analysis of covariance, and topics closely related to the analysis of variance.—*M. J. Wayner, Jr.*

Formulas & Calculations

60. Bendig, A. W. (U. Pittsburgh) **Forty variables phi coefficient correlation and chi-square program for the expanded IBM 650.** *Educ. psychol. Measmt.*, 1962, 22(1), 167-170.—"This program computes phi correlation coefficients among n variables where n is equal to or less than 40. The output gives the size of the sample, the number and proportion of cases falling in one category of each of the dichotomous variables, a chi-square test of the significance of the relationship between each pair of variables, and the phi coefficient, in either fixed or floating point arithmetic, between each pair. Data cannot be missing on any of the variables: if data are missing the case must be omitted."—*W. Coleman.*

61. Cornell, Richard G. **A method for fitting linear combinations of exponentials.** *Biometrics*, 1962, 18(1), 104-113.—"The estimation procedure of partial totals has been developed for a linear combination of any number of exponential terms with data taken at equally spaced points. The statistical properties of these estimates have been investigated and the computation of estimates has been illustrated."—*R. L. McCornack.*

62. Cramer, Elliot M. (Johns Hopkins U.) **A comparison of three methods of fitting the normal ogive.** *Psychometrika*, 1962, 27(2), 183-192.—The Mueller-Urban method of fitting the normal ogive is derived, and the inadequacies of its inherent as-

sumptions are discussed. This and the unweighted least squares method are compared to the maximum likelihood solution which is shown to be very close to the "ideal" least squares solution. As an empirical demonstration of the superiority of the maximum likelihood solution, random ogives are fitted by all 3 methods; and they are compared on the basis of the expected values and the standard errors of the estimates. It is concluded that the maximum likelihood solution is uniformly superior to the others in all respects.—*Journal abstract.*

63. Cramer, Elliot M. (George Washington U.) **Fitting the normal ogive on the IBM 650.** *Educ. psychol. Measmt.*, 1962, 22(1), 177-181.—For the model, $\rho = \int_{-\infty}^{\infty} N(m, \sigma) dv$, a program has been written providing a maximum likelihood solution. "Considerable flexibility has been built into the program so that many functions may be fit with minimal data handling and key punching."—*W. Coleman.*

64. Cramer, Elliot M. (George Washington U.) **A general correlation program for the IBM 650.** *Educ. psychol. Measmt.*, 1962, 22(1), 149-154.—A program for computing a matrix of intercorrelations or cross-correlations as well as means and standard deviations. Computation formulas are given and input, control, and output card forms are shown. Listing procedure and operating instructions are also given.—*W. Coleman.*

65. Daly, C. **A simple test for trends in a contingency table.** *Biometrics*, 1962, 18(1), 114-119.—A method for allowing for trends when examining contingency tables for association between rows and columns representing ordered classifications.—*R. L. McCornack.*

66. Gibson, W. A. (Dept. Army) **On the least-squares orthogonalization of an oblique transformation.** *Psychometrika*, 1962, 27(2), 193-195.—After proving a special case of a theorem stated by Eckart and Young (namely, that an oblique transformation G is the product of 2 different orthogonal transformations and an intervening diagonal), this note shows that the best fitting orthogonal approximation to G is obtained simply by replacing the intervening diagonal by the identity matrix. This result is shown to be identical with 2 earlier orthogonalizing procedures when G is of full rank. A multiplicity of solutions is shown for the case of a singular G .—*Journal abstract.*

67. Goldstein, Donald Aaron. (Pennsylvania State U.) **An expression for the test characteristic kurtosis in terms of item parameters and an estimate of a quantity appearing in this expression.** *Dissert. Abstr.*, 1961, 22(1), 331-332.—*Abstract.*

68. Gyr, John; Thatcher, James, & Allen, George. (U. Michigan) **Computer simulation of a model of cognitive organization.** *Behav. Sci.*, 1962, 7(1), 111-116.—Describes the properties of the computer program written to fit a model of cognitive organization derived from an earlier study of problem solving and information processing. Discusses the problems of the earlier research and the empirical properties of the derived model.—*J. Arbit.*

69. Henrysson, S. **The equivalence coefficient and the Kuder-Richardson Coefficient 20.** *Scand. J. Psychol.*, 1962, 3(1), 40-46.—The relation between the equivalence coefficient and the Kuder-Richardson

Coefficient 20 is discussed. Formulas, tables, and graphs of the difference between the 2 coefficients are given. In most cases the difference between the 2 coefficients will be rather small.—*Journal abstract.*

70. Henrysson, Sten. **Methods of adjustment of item-total correlations for overlapping due to unique item variance.** *Res. Bull. Inst. Educ. Res., U. Stockholm*, 1962, No. 8. 14 p.—The biserial correlation between an item and the total test of which the item is a part tends to be misleadingly high when used in item analysis, since the item is included in the total test. 5 different methods of adjustment for this overlap are suggested. These methods try to correct only for the influence of the unique part of the item variance. This is done by using communalities instead of item variances in the diagonal of the interitem covariance matrix. Empirical demonstrations are given. 1 of the 5 methods is preferred, since it is easy to use and gives invariance with respect to test length.—*Journal abstract.*

71. Holdrege, Fred E., Lawrence, Harry G., Kagihara, Robert H., & Born, Gerald. **Iterative item analysis.** *USAF ASD tech. Note*, 1961, No. 61-148. 10 p.—A method of weighting individual items which uses part correlation coefficients to obtain maximum test criterion correlation has been proposed. A simple method for graphical solution of the formula for a part correlation coefficient is presented to make the proposed system of iterative item analysis feasible without the use of an electronic computer. By continuing the iterative procedure, this technique produces a result comparable to that obtained from standard iterative multiple regression techniques. The technique was applied to a practical item selection problem and demonstrated improved prediction over a single empirical key. Further studies could determine applicability to other item types and the limits of effective iteration.—*USAF ASD.*

72. Kleinmuntz, Benjamin, & Alexander, L. Barton. (Carnegie Inst. Technology) **Computer program for the Meehl-Dahlstrom MMPI profile rules.** *Educ. psychol. Measmt.*, 1962, 22(1), 193-199.—The Meehl-Dahlstrom configural rules for discriminating neurotic from psychotic patients on the MMPI have been programmed for the IBM 650. The Carnegie Institute of Technology General Algebraic Translator Extended System (CATE) was used to facilitate writing the program.—*W. Coleman.*

73. Lefkowitz, Monroe M., & Greene, Harold E. (Rip Van Winkle Found.) **Obtaining components essential to a number of statistical analyses by use of the IBM accounting machine.** *Educ. psychol. Measmt.*, 1962, 22(1), 183-186.—A wiring diagram is shown for using the IBM 402 accounting machine to obtain the following terms: N , X , X^2 , XY , Y , and Y^2 . The operation of the program is described along with its limitations. A method for determining the running time that will be used is also presented.—*W. Coleman.*

74. Lotto, Gary. (U. Pittsburgh) **CORR1 and CORR2: Correlation routines for the IBM 7070.** *Educ. psychol. Measmt.*, 1962, 22(1), 155-162.—These programs "are designed to calculate sums, sums of squares, and all possible sums of cross-products for up to 130 variables of 4 digit data." The results are converted to a printed or punched matrix of correlation coefficients. The programs are de-

scribed with the machine requirements, timing, input format, operating instructions, etc.—*W. Coleman.*

75. Lotto, Gary. (U. Pittsburgh) **MR1: Multiple regression analysis on the IBM 7070.** *Educ. psychol. Measmt.*, 1962, 22(1), 163-166.—"MR1 will compute the appropriate statistics to a multiple regression analysis for up to 129 independent variables. It operates in a stepwise fashion, first computing these statistics for the one 'best' i.v. It then selects the 'best' of the remaining variables from the pool of independent variables." Its method of functioning, timing, machine requirements, and input format are described.—*W. Coleman.*

76. Michael, William B., Jones, Robert A., Gaddis, L. Wesley, & Kaiser, Henry F. (U. Southern California) **Abacs for determination of a correlation coefficient corrected for restriction of range.** *Psychometrika*, 1962, 27(2), 197-202.—Abacs approximating the product-moment correlation for both explicit and implicit selection are presented. These abacs give accuracy to within .01 of the corresponding analytic estimate.—*Journal abstract.*

77. Patil, G. P. **Some methods of estimation for the logarithmic series distribution.** *Biometrics*, 1962, 18(1), 68-75.—Different estimates for the parameter of the logarithmic series distribution and an investigation of their efficiencies and the amounts of bias are presented. Computations are illustrated using a distribution of number of publications of biologists.—*R. L. McCornack.*

78. Saunders, Sarah Gabriel; Gaddis, L. Wesley, & Michael, William B. (U. Southern California) **An IBM 650 program for item analysis of dichotomized variables.** *Educ. psychol. Measmt.*, 1962, 22(1), 171-176.—An IBM 650 program for item analysis procedures involving fourfold tables is described. The program permits calculation of chi square and phi coefficients. It can also be used for determining the marginal values of the fourfold tables in terms of frequencies of responses and for converting marginal values to proportions of the total frequency.—*W. Coleman.*

79. Shepard, Roger N. (Bell Telephone Lab.) **The analysis of proximities: Multidimensional scaling with an unknown distance function. Part I.** *Psychometrika*, 1962, 27(2), 125-140.—A computer program is described that is designed to reconstruct the metric configuration of a set of points in Euclidean space on the basis of essentially non-metric information about that configuration. A minimum set of Cartesian coordinates for the points is determined when the only available information specifies for each pair of those points, not the distance between them, but some unknown, fixed monotonic function of that distance. The program is proposed as a tool for reductively analyzing several types of psychological data, particularly measures of inter-stimulus similarity or confusability, by making explicit the multidimensional structure underlying such data.—*Journal abstract.*

80. Walder, Leopold O., Greene, Harold E., & Lefkowitz, Donna D. (Rip Van Winkle Found.) **A method for deriving "flexible" sociomatrices from response forms appropriate to children in the third grade.** *Educ. psychol. Measmt.*, 1962, 22(1), 187-191.—The use of a 26-page booklet for collecting peer-rating data on 25 items and an expedient

method for key-punching the responses onto IBM cards is described. An Item Adder Program is available for the IBM 650 to sum the object cards and to recompute the percentages for yielding composite object scores.—*W. Coleman.*

81. Webster, H. (U. California, Berkeley) **Reliability of the ordering achieved by tests: A lower bound for generalized KR 21.** *Psychol. Rep.*, 1962, 10(1), 59-63.—"Reliability estimate (8) has been derived, using an approach suggested by Kendall, by introducing the concept of maximum test score variance. The estimate is simply calculated and practically insensitive to skewness. As total test score skewness decreases, (8) closely approaches in value either KR 21 or generalized KR 21, depending on the item scoring convention adopted throughout the test. This appears to be a desirable property for many testing problems in which enhancement of reliability by skewness is not desired, e.g., for certain item selection procedures where long initial tests and numerous potential test items are available."—*B. J. House.*

Factor Analysis

82. Bechtoldt, H. P. **Factor analysis and the investigation of hypotheses.** *Percept. mot. Skills*, 1962, 14, 319-342.—The paper deals with several basic methodological problems arising from attempts to investigate hypotheses involving abilities or factors by the methods of factor analysis. The appropriateness of these methods for several classes of hypotheses is discussed in terms of such issues as the relevance of a given statistical model for a specific empirical hypothesis, the development of a set of linearly and experimentally independent and explicitly defined variables, and the estimation and evaluation or interpretation of indices of relationship. Suggestions are made as to the integration of factor analytic procedures and the concepts of abilities or factors into the general body of statistical and behavioral theory.—*W. H. Guertin.*

83. Cattell, Raymond B., & Sullivan, William. (U. Illinois) **The scientific nature of factors: A demonstration by cups of coffee.** *Behav. Sci.*, 1962, 7(2), 184-193.—"Complete understanding of a mathematical model cannot be gained from logical analysis alone; the types of concepts which these models represent must be understood as well. The authors of this paper suggest that the nature of a model and its full implications may be made clear by applying it to a common concrete example whose properties are already fully understood. In the experiment described here, the factor analytic model is applied to that very common thing, a cup of coffee." (26 ref.)—*Journal abstract.*

84. Eyman, R. K., Dingman, H. F., & Meyers, E. C. (Pacific State Hosp.) **Comparison of some computer techniques for factor analytic rotation.** *Educ. psychol. Measmt.*, 1962, 22(1), 201-214.—Previous studies have shown both agreement and substantial differences in the solutions obtained from various factor analytic methods. 5 well-defined variables were included in 13 tests given to samples of 100 mentally retarded and 100 normal children. The 2 matrices were analyzed by (a) Zimmerman's graphic method, (b) the quartimax method, (c) the varimax solution, (d) the oblimax solution, and (e) the biquartimin solution. "The findings in this study

support the advantages of both the biquartimin and varimax methods when compared with hand graphic rotations. Still, the biquartimin solution appears to be the more generally appropriate solution if orthogonality is not demanded."—*W. Coleman.*

85. Horst, Paul. (U. Washington) **Matrix reduction and approximation to principal axes.** *Psychometrika*, 1962, 27(2), 169-178.—A modification of Hotelling's iteration method of factor analysis is presented which is much more rapid and almost as accurate. At any stage of the approximation for a factor vector its major product moment reduces the rank of the residual matrix by precisely one. Each approximation to an eigenvalue is larger than the preceding one. By observing the decline in these increments one can often stop the iterations at early stages without serious loss. If subsequent rotational procedures are used, the method gives practically the same results as the more exact methods and in a small fraction of the time.—*Journal abstract.*

86. Hurley, John R., & Cattell, Raymond B. (U. Illinois) **The Procrustes Program: Producing direct rotation to test a hypothesized factor structure.** *Behav. Sci.*, 1962, 7(2), 258-262.—This paper is concerned with the theory, mathematics, and computer implementation of rotating factor structures. The purpose is to see how well the factor patterns obtained from a given set of data fit a previously stated hypothesis as to what the factor patterns should be. (20 ref.)—*J. Arbit.*

87. MacDonald, Roderick P. (U. New England, Australia) **A note on the derivation of the general latent class model.** *Psychometrika*, 1962, 27(2), 203-206.—A general formulation of the latent structure principle is suggested, from which it is possible to derive Lazarsfeld's accounting equations in their most general form. The basic equations of Gibson's latent profile model can thence be derived in a single step.—*Journal abstract.*

88. Saunders, D. R. (Princeton, N. J.) **Integrating the implementation of quartimax, varimax, oblimax, and related rotational methods.** *Psychol. Rep.*, 1962, 10(1), 241-242.—"A computational procedure is reported which permits both quartimax and varimax to be incorporated into a typical oblimax program with a minimum of additional instructions. The existence of a new class of orthogonal rotational methods is suggested."—*B. J. House.*

GENERAL BOOKS & REFERENCE WORKS

89. Artemov, V. A. **Kurs lektsii po psikhologii.** [Course of lectures in psychology.] Khar'kov, USSR: Khar'kov Univer. Publishing House, 1958. 421 p.—A text in psychology for pedagogical institutes and for students interested not only in general psychology, but also in the specialized areas of language and thought.—*I. D. London.*

90. Brown, R., Galanter, E., Hess, E. H., & Mandler, G. **New directions in psychology.** New York: Holt, Rinehart, & Winston, 1962. ix, 353 p. \$2.50.—4 topics were selected to represent current trends in psychology: models of attitude changes (Brown), contemporary psychophysics (Galanter), ethology (Hess), and emotion (Mandler). Heterogeneous as these topics are they have one characteristic in common: the abandonment of isolated factor research. Cognitive adjustments are stressed in atti-

tude models, motivational constraints in psychophysics, integration of hereditary behavior patterns and environmental modifications in etiology, and the interaction of physiological and social variables in emotion.—*W. J. Koppitz*.

91. Candland, D. K., & Campbell, J. F. **Exploring behavior: An introduction to psychology**. New York: Basic Books, 1961. 179 p. \$4.50.

92. Fiske, Donald W., & Maddi, Salvatore R. **Functions of varied experience**. Homewood, Ill.: Dorsey, 1961. v, 501 p. \$10.60.—Several topics in the area of varied experience and its consequence for the organism are covered in the book's 15 chapters. 3 chapters ("The Forms of Varied Experience," "A Conceptual Framework," and "An Appraisal of the Proposed Conceptual Framework") are under the joint authorship of Fiske and Maddi. 2 chapters ("Effects of Monotonous and Restricted Stimulation" and "The Inherent Variability of Behavior") are by Fiske, and 2 are by Maddi ("Explosatory Behavior and Variation-Seeking in Man" and "Unexpectedness, Affective Tone, and Behavior"). The remaining chapters were contributed by 9 other authors: "Stimulation as a Requirement for Growth and Function in Behavioral Development" by Austin H. Riesen; "Early Environmental Stimulation" by William R. Thompson and Theodore Schaefer, Jr.; "Behavioral, Subjective, and Physiological Aspects of Drowsiness and Sleep" by Joe Kamiya; "An Analysis of Exploratory and Play Behavior in Animals" by W. I. Welker; "Alternation Behavior" by William N. Dember; "Motivation Reconsidered: The Concept of Competence" by Robert W. White; "Complexity-Simplicity as a Personality Variable in Cognitive and Preferential Behavior" by James Bieri; and "Beauty: Pattern and Change" by John R. Platt.—*E. Y. Borrouman*.

93. Koch, Sigmund. (Ed.) **Psychology: A study of a science. Study II: Empirical substructure and relations with other sciences. Vol. 4. Biologically oriented fields: Their place in psychology and in biological science**. New York: McGraw-Hill, 1962. xxxix, 731 p. \$12.50.—(See 37: 170, 178, 181, 192, 207, 520, 521, 524, 527, 529, 530, 533, 613, 680)—*E. Y. Beeman*.

94. McDougall, William. **Body and mind**. Boston, Mass.: Beacon, 1961. xix, 384 p. \$2.45 (paper).

95. Munn, Norman L. (Bowdoin Coll.) **Introduction to psychology**. (4th ed.) Boston, Mass.: Houghton Mifflin, 1962. xiv, 588 p. \$6.95.—This edition is shorter by 226 pages and 9 chapters than the 1961 edition, *Psychology: The Fundamentals of Human Adjustment* (see 36: 1A12M). "Most of the material is taken from the larger edition, but this is edited so as to delete certain physiological and experimental details. . . . Grouping of chapters into parts . . . has been omitted so as to provide greater flexibility." There are correlated changes in the references, glossary, appendix, and accompanying manuals.—*R. S. Harper*.

96. Russell, Claire, & Russell, W. M. S. **Human behavior**. Boston, Mass.: Little, Brown, 1961. ix, 532 p. \$6.50.—Drawing heavily on animal behavior experiments, the authors describe in the 1st section many types of automatic (nonvoluntarily controlled) behavior which prevail among all species. The automatisms in human behavior which the authors cite appear to be related to psychoanalytically oriented de-

fence concepts. A plea is made for liberating humans from these automatisms.—*G. Elias*.

97. Stinissen, J. **Geannoteerde bibliografie van tijdschriften voor toegepaste psychologie, tot einde 1960**. [Annotated bibliography of reviews of applied psychology, up to the end of 1960.] *Tijdschr. Stud.-Beroepsorient.*, 1961, 8, 122-135.—This bibliography includes British and American reviews.—*R. Piret*.

ORGANIZATIONS

98. American Psychological Association. **Instructions for the preparation of abstracts**. *Amer. Psychologist*, 1961, 16, 833.—*S. J. Lachman*.

99. American Psychological Association. **Officers, boards, committees, and representatives of the American Psychological Association: 1961-1962**. *Amer. Psychologist*, 1961, 16, 776-798.—*S. J. Lachman*.

100. American Psychological Association, Convention Committee. **Call for papers and symposia: Seventieth Annual Convention of the American Psychological Association**. *Amer. Psychologist*, 1961, 16, 730-737.—Rules and procedural instructions regarding papers and symposia at the 1962 Annual Convention to be held in St. Louis, Missouri, are specified. The kinds of programs and sessions anticipated are indicated, and an outline of the convention schedule is provided.—*S. J. Lachman*.

101. American Psychological Association, Council of Editors. **Summary report of journal operations: 1960**. *Amer. Psychologist*, 1961, 16, 834.—*S. J. Lachman*.

102. Carter, Launor F. **Proceedings of the sixty-ninth Annual Business Meeting of the American Psychological Association, Inc.: Report of the Recording Secretary**. *Amer. Psychologist*, 1961, 16, 759-773.—*S. J. Lachman*.

103. Crawford, Meredith P. **Proceedings of the sixty-ninth Annual Business Meeting of the American Psychological Association, Inc.: Report of the Treasurer**. *Amer. Psychologist*, 1961, 16, 773-775.—*S. J. Lachman*.

PROFESSIONAL PROBLEMS

104. American Board of Examiners in Professional Psychology: 1961 annual report. *Amer. Psychologist*, 1961, 16, 835-837.—*S. J. Lachman*.

105. American Psychological Association, Committee on Scientific and Professional Ethics and Conduct. **Rules and procedures**. *Amer. Psychologist*, 1961, 16, 829-832.—*S. J. Lachman*.

106. Ammons, R. B., & Ammons, C. H. **Permanent or temporary journals: Are PR and PMS stable?** *Percept. mot. Skills*, 1962, 14, 281.—The paper on which *Psychological Reports* and *Perceptual and Motor Skills* and reprints from them have been printed, along with most other journals and reprints in psychology, will become discolored and brittle in a relatively few years. This situation poses a practical problem of major proportions.—*W. H. Guertin*.

107. Braun, John R. (U. Bridgeport) **Stereotypes of the scientist as seen with the Gordon Personal Profile and Gordon Personal Inventory**. *J. Psychol.*, 1962, 53(2), 453-455.—In 1961 42 Texas Christian University students took either the Gordon

Personal Profile or Gordon Personal Inventory under sets to answer as would a typical scientist or a typical business executive. The resulting stereotype of the scientist was found to be quite similar to that found by Bendig and Hountras in 1958 with University of Pittsburgh students.—*Author abstract.*

108. Broadhurst, P. L. (U. London) **Coordinate indexing: A bibliographic aid.** *Amer. Psychologist*, 1962, 17, 137-142.—"The procedure involves setting up a separate card file to index the collection of references, these being filed irrespective of author or content but merely according to a serial number assigned to each reference as it is added—technically the accession number. The classification of the reference is done by selecting certain words and underlining them ('tracing'). By coincidences of numbers on Uniterm cards (cards containing key words), references can be selected dealing with 2, 3, or more topics. The method is mechanical, simple, cheap, and can accommodate a variety of material.—S. J. Lachman.

109. David, Henry P. (New Jersey State Dept. Institutions & Agencies, Trenton) **New Jersey vignettes: Fifty years of state psychological services.** *Amer. Psychologist*, 1962, 17, 53-54.—"New Jersey State Psychological Services began on October 1, 1910, when J. E. Wallace Wallin left . . . Vineland . . . to open a Psychological Laboratory at the New Jersey Village for Epileptics . . . near Princeton. . . Edgar A. Doll became New Jersey's first State Chief Psychologist, 1919-23." Psychological services expanded greatly by the end of the postwar decade. Internships in clinical psychological services and research have been available since the early 20s. At present there are over 100 state psychology positions in correctional centers, mental hospitals, and training schools.—S. J. Lachman.

110. David, Henry P., & Swartley, William M. (New Jersey State Dept. Institutions & Agencies, Trenton) **Toward more effective international communication in psychology.** *Amer. Psychologist*, 1961, 16, 696-698.—Psychologists "have given relatively little attention to new techniques of selective electric dissemination of scientific papers, micropublication, and mechanized retrieval of stored information. . . . It is already technically feasible and financially practical to publish most everything any psychologist believes might be of value to a colleague within a week of manuscript availability. Furthermore, it is now possible to selectively distribute an abstract of each paper within another week to every psychologist anywhere in the world who has previously expressed an interest in the specific content area. Immediate and exhaustive publication involves no more than photographing manuscripts and reproducing them as microarticles on a single 3 × 5 inch file card. Very lengthy articles, exceeding 140 double spaced pages, might require a second card."—S. J. Lachman.

111. Eiduson, Bernice T. (U. Southern California) **Scientists: Their psychological world.** New York: Basic Books, 1962. xiv, 299 p. \$6.50.—This attempt of finding characteristic traits in the personalities of scientists is based on interviews of 40 research scientists from California Universities. The Rorschach and TAT yielded supplementary information. While no specific emotional traits could

be detected, scientists revealed much similarity in the areas of cognitive and perceptual organization.—W. J. Koppitz.

112. Gullahorn, John T., & Gullahorn, Jeanne E. **Visiting Fulbright professors as agents of cross-cultural communication.** *Sociol. soc. Res.*, 1962, 46(3), 282-293.—Theoretical considerations concerning interactions among group members of relatively high and equal status, as well as the conditions accompanying the role of the stranger, lead to the conclusion that visiting professors in the International Educational Exchange Program have a uniquely favorable opportunity to become agents of cross-cultural communication. Data from a questionnaire and interview survey of American Fulbright and Smith-Mundt grantees support this view. Examples are cited of the interactions with foreign colleagues and others engaged in by social scientists, natural scientists, and humanists; and certain differences among the 3 categories are noted. It is postulated that the frequency and quality of interactions, both while abroad and after return home, depend largely on the exchange professors' skill in discerning and using the reference groups appropriate to the situation.—*Journal abstract.*

113. Hollyer, Stewart Gordon. (U. Nebraska) **Social status factors and achievement needs as related to entry into a professional field.** *Dissert. Abstr.*, 1961, 21(12), 3844.—*Abstract.*

114. Kahn, Marvin W., & Santostefano, Sebastian. (U. Colorado School Medicine) **The case of clinical psychology: A search for identity.** *Amer. Psychologist*, 1962, 17, 185-189.—Clinical psychology presents itself in a state of chronic anxiety, great ambivalence, insecurity, and self-doubt. "Clinical psychology is confused concerning its identity. The 'role of the internship in the training of clinical psychologists is a crucial one.' It should provide a clear example of the role model the clinician will eventually be expected to assume. 'Both academic departments and internship training centers must assume fully their responsibility for training clinical students in the role society demands of them.'—S. J. Lachman.

115. Kappel, Frederick B. (American Telephone & Telegraph) **Education for scientific careers in industry.** *Teachers Coll. Rec.*, 1962, 63(8), 614-622.—"The people who can grow and take responsibility and make big contributions are the self-developers." At American Telephone and Telegraph the research man is free to work at things chosen by him, he may carry on the work to the point where development men can take over and free him for further research, and he may promptly publish his findings. A broad education is the best preparation.—H. K. Moore.

116. Krasner, Leonard. (Stanford U.) **Behavior control and social responsibility.** *Amer. Psychologist*, 1962, 17, 199-203.—"It is in the field of psychotherapy that the issues of the moral and ethical implications of behavior control first arose as a relevant problem." We "cannot avoid facing the issue of values." Psychology should "develop techniques of approaching experimentally the basic problem of social and ethical issues involved in behavior control." In connection with this, the psychologist-researcher "should undertake the task of contact with the public rather than leaving it to sensationalists and

popularizers." Behavior control "represents a relatively new, important, and very useful development in psychological research."—S. J. Lachman.

117. Lysenko, N. F. (Kherson) *Charl'z Darwin o kachestvakh uma uchenogo*. [Charles Darwin on the scientist's mind.] *Vop. Psikh.*, 1961, No. 5, 154-158.—"Research work, apart from high moral and physical tension, requires some special properties of the mind. The present paper is an attempt to answer the question as to the qualities of the mind necessary for research work. By studying the works and scientific activities of Charles Robert Darwin the author presents an analysis of such qualities of the scientist's mind as a tendency to generalization and reasoning. The article also dwells on the critical nature of Charles Darwin's mind."—H. Pick.

118. Moreno, J. L. *Code of ethics for group psychotherapy and psychodrama: Relationship to the Hippocratic Oath*. New York: Beacon House, 1962, 29 p.—Moreno's "Code of Ethics" and "Group Oath" (the latter appearing originally in *Group Psychotherapy*, 1955, 8, 357) are reprinted along with a number of responses.—E. L. Borrowman.

119. President's Science Advisory Committee, Life Sciences Panel, Behavioral Sciences Subpanel. *Strengthening the behavioral sciences*. Washington, D. C.: United States Government Printing Office, 1962. 19 p. \$15.—The report includes examples of some of the many types of research that is being carried on in the behavioral sciences. It identifies certain needs which must be met if the scientific study of behavior is to continue to develop and makes suggestions as to how they might be met.—E. L. Borrowman.

120. President's Science Advisory Committee, Life Sciences Panel, Behavioral Sciences Subpanel. *Strengthening the behavioral sciences*. *Science*, 1962, 136(3512), 233-241.—(See 37: 119).

121. Ratner, Stanley C. (Michigan State U.) *The role of psychology in the traveling science teacher program for high schools*. *Amer. Psychologist*, 1961, 16, 702-704.—The program at Michigan State University involved training 20 secondary school science teachers during a 3-month period, and included 14 hours of lectures in psychology. It "yielded 16 lecture-demonstrations suitable for presentation at the secondary school level" by the science teachers, each of whom developed a "psychobiology" lecture-demonstration. "The demonstrations, which were used to accompany the lecture, were originally selected for a variety of reasons" including simplicity of material, portability of material, and opportunity for student participation. 2 demonstrations were described. The lecture developed by the science teachers on psychobiology was "presented to a total of 565 groups of students and other interested audiences."—S. J. Lachman.

122. Rohrer, Wayne C., & Motz, Annabelle B. *Presidency in three learned societies: Social characteristics and modes of accession to office*. *Sociol. soc. Res.*, 1962, 46(3), 271-281.—The Presidency in 3 learned societies is viewed from the standpoint of (a) who becomes president, and (b) what route does the person follow in achieving the presidency. Facets of several social characteristics (age, academic training, job location, and publication) are considered. The mode of accession is presented in terms of or-

ganizational maintenance, professional competence, and strategic location in the occupational structure.—*Journal abstract.*

Psychological Personnel

123. Adams, James F., & Jenkins, Peter H. (Temple U.) *The psychological marketplace*. *Amer. Psychologist*, 1962, 17, 208-209.—At a meeting of the Eastern Psychological Association "there were 206 applicants for 125 academic positions, 157 applicants for 467 clinical and counseling positions, and 163 applicants for 198 industrial and research positions." There are "more jobs available than there are psychologists to fill them in the total employment picture." While "the degree requirements are the lowest for the Industrial and Research area, the median starting salary is the highest. The converse is true for the academic positions."—S. J. Lachman.

124. American Psychological Association. *Distinguished Scientific Contribution Awards: 1961*. *Amer. Psychologist*, 1961, 16, 799-807.—Distinguished Scientific Contribution Awards of the APA were presented to James Jerome Gibson, Donald Olding Hebb, and Henry Alexander Murray. The formal citation accompanying the award, a photograph, a brief professional biography, and a bibliography of scientific publications are included for each award recipient.—S. J. Lachman.

125. Boring, Edwin G. (Harvard U.) *Psychologist at large*. New York: Basic Books, 1961. 371 p. \$6.50.—An autobiography about twice the length of that published under the editorship of Carl Murchison in 1952. It now includes the decade 1950-60, and contains 9 selected letters (out of his file of about 40,000) written to Koffka, Hans Sachs (Boring's psychoanalyst), Bartlett, Skinner, Terman, and Yerkes. 13 selected papers and his bibliography round out the volume. The papers range from "The Woman Problem," through "The Moon Illusion," to "Psychological Factors in the Scientific Process."—T. J. Banta.

126. Ehrle, Raymond A., & Johnson, Bob G. (Pennsylvania Rehabilitation Center) *Psychologists and cartoonists*. *Amer. Psychologist*, 1961, 16, 693-695.—"To assess one component of the public image of the psychologist . . . the present writers have theorized that a content or thematic analysis of cartoons might be relevant." An analysis of 4760 cartoons contained in 6 popular magazines for the years 1949 and 1959 led to the conclusions that: (a) considerable overlap in public image does occur between psychologists, psychiatrists, and other psychologically oriented personnel; (b) psychology as a science and as a profession does not appear to excite the public imagination and generate public interest; (c) psychology has kept pace with members of various other professions and occupations; (d) the psychologist does not seem to have any distinctive identifying symbol which he can easily claim as his own.—S. J. Lachman.

127. Grether, Walter F. (Behavioral Sciences Lab., Wright-Patterson AFB) *Psychology and the space frontier*. *Amer. Psychologist*, 1962, 17, 92-101.—Psychology and psychologists have made important contributions "generally in the selection of astronauts, the determination of astronaut capabilities

and design of the work station to match these, and the design of training equipment and methods for astronaut training. . . . Psychology as a science has a vital role to play in the conquest of space. . . . Psychologists have responded with vigor and imagination to the challenging problems of space flight. . . . The space flight challenge brings with it the stimulation of new ideas and opens opportunities for new types of research on human behavior. . . . Psychology has much to gain in the form of new knowledge, and also, in status as a science, from its participation in the push into space."—S. J. Lachman.

128. Hirt, Michael. A career as a psychologist. Cambridge, Mass.: Bellman, 1962. 26 p. \$1.00.—Psychology is characterized as both a profession and a science. The divisions of the American Psychological Association and Shartle's 28 speciality titles are listed to illustrate the various specialities within psychology. Figures are provided indicating that there are over 20,000 psychologists with 36% employed in colleges. Other major settings are also given. The future outlook and personal requirements are discussed briefly. Preparation is described with emphasis on graduate training. Data are supplied showing the income of psychologists by type of employment and age level. Occupational relationships are mentioned. Requirements for certification or licensing are cited, and a somewhat dated list of regional and state psychological associations is provided. The journals published by the American Psychological Association are listed as sources of further information. (36 ref.)—W. Coleman.

129. Rice, George P. (Butler U.) The psychologist as expert witness. *Amer. Psychologist*, 1961, 16, 691-692.—"Is psychology sufficiently established at this time as a science to qualify its practitioners as expert witnesses in civil and criminal trials in federal and state courts. . . ? If so, does a need exist for their services in this capacity? . . . The purpose of this brief . . . [article] is to survey the domain, defining terms, show how the psychologist might be qualified in an actual trial, point out methods of obtaining his testimony, and suggest legislative action along broad lines." The major sections are: Definitions, Qualification as a Witness, Methods of Taking Testimony, and Suggested Legislation.—S. J. Lachman.

130. Wallin, J. E. Wallace. (Wilmington, Del.) PhDs in psychology who functioned as clinical psychologists between 1896 and 1910. *Psychol. Rec.*, 1961, 11, 339-341.—The names and other information were obtained by the author through questionnaire (1913), extensive correspondence and examination of college catalogues, first-hand observation at many institutions and in many school systems (1910-12), and recent communication (1960).—R. J. Seidel.

131. Woods, Paul J. (Hollins Coll.) Some characteristics of journals and authors. *Amer. Psychologist*, 1961, 16, 699-701.—Some characteristics of authors in 10 American Psychological Association journals and 9 other selected psychological journals are presented in a table. The "number of authors who are not affiliated with the APA is rather surprising although many of these may be students. The total proportion of non-APA members for the APA journals is .23 and for the others .28." Approximately "one-quarter to one-third of the authors

throughout have no divisional affiliation. . . . All of the journals studied contained authors who were members of the Psychonomic Society. The APA journal with the highest proportion in this group was *Psychological Review*," and the next highest was the *Journal of Experimental Psychology*. Slightly more than $\frac{1}{2}$ of the articles are by individual authors and about $\frac{1}{2}$ are by 2 authors.—S. J. Lachman.

Training in Psychology

132. Brayfield, Arthur H., Dipboye, Wilbert J., Johnson, Walter E., Robinson, Francis P., Super, Donald E., & Landy, Edward. The scope and standards of preparation in psychology for school counselors. *Amer. Psychologist*, 1962, 17, 149-152.—"This report asserts that psychology is central to the training of school counselors. The recommendations are designed to be guidelines for colleges of education, psychology departments, school systems, state departments of public instruction, the United States Office of Education and professional associations interested in the training and professional development of school counselors." The major sections are: Principles Relevant to Professional Preparation of the School Counselor and to His Effective Functioning, Content Areas in the Field of Psychology, Implications of the Report, and Pertinent Reports and Publications.—S. J. Lachman.

133. Darley, John G. (American Psychological Ass.) Report of the executive officer: 1961. *Amer. Psychologist*, 1961, 16, 755-758.—Psychologists "must continue to speak to college students, and with greater effectiveness than may be true at present." American Council on Education evidence "suggests that psychology, against the index year of 1955, may be losing ground proportionately as an undergraduate major field. . . . If we fail in creating an adequate perception of psychology among college students, we may mortgage our future beyond redemption." In governmental affairs "psychology's voice . . . is not as clear nor its message as self-assured as the voices of other scientists and scholars." The factors influencing processes in which the APA Central Office becomes involved are considered briefly.—S. J. Lachman.

134. McKeachie, Wilbert J., & Millholland, J. E. (Eds.) (U. Michigan) Undergraduate curricula in psychology. Chicago, Ill.: Scott, Foresman, 1961. 115 p. \$2.00.—Report of a summer conference. Besides contributions by the editors (who served as conference directors), there are also papers by L. E. Cole, W. A. Hunt, R. Leeper, W. Ray, R. L. Isaacson, J. V. McConnell, and E. L. Walker. Major topics: experience with Wolfe curriculum; pressures on the curriculum, professional and vocational training, the beginning course, the experimental-statistical area, 3 model curricula for the major, and suggestions for research. Annotated bibliography.—C. T. Morgan.

135. Ross, Sherman. (American Psychological Ass.) Educational facilities and financial assistance for graduate students in psychology: 1962-63. *Amer. Psychologist*, 1961, 16, 808-828.—Varying degrees of information are given about application requirements, requirements for admission, tuition, types of assistantships, stipends, Veterans Administration traineeships, National Defense Education Act fellowships, United States Public Health Service stipends, etc., for each of 184 institutions.—S. J. Lachman.

136. Ryckman, Marjorie. (U. Missouri) Graduate training in psychology: The trend in specialization at the master's level. *Amer. Psychologist*, 1962, 17, 143-145.—Should the master's degree be a terminal degree of a steppingstone to the doctorate? The question of specialization at this level also enters the picture. Data from published research of other investigators indicate that "for each field in which the Master's is offered in both 1951-52 and in 1961-62 not only has the percentage of schools offering it sharply decreased but also . . . the absolute number is less." As compared with 1951, the 1961 figures "show that Masters' in the major fields of psychology are offered in fewer schools today, and a large number offer no Master's at all. . . . The number and percentages of schools offering no Master's degrees in psychology has more than tripled in the ten-year period."—S. J. Lachman.

PSYCHOLOGY ABROAD

137. American Psychological Association. Report on translations of Russian psychological literature. *Amer. Psychologist*, 1962, 17, 155-156.—"With APA's increasing concern for the problem of translations from the Russian in the field of psychology and related areas, some groundwork has been done in an effort to collect as complete a bibliography as possible, together with a list of sources for the material. . . . The report consists of sources for known materials, a bibliography, and a listing of ongoing research, partly translations and partly reviews and evaluations of articles in Russian on various aspects of psychology."—S. J. Lachman.

138. American Psychological Association, Committee on Psychology in National and International Affairs. Psychology in national and international affairs: A progress report. *Amer. Psychologist*, 1962, 17, 50-52.—The committee has been directed to concern itself with "(a) examining international and related national issues for those aspects to which the special competencies of psychologists may be applied; (b) initiating and coordinating actions approved by the Board and Council, which are likely to encourage such applications; (c) maintaining liaison with APA boards, committees and divisions, and other individuals and organizations. . . . Subcommittees are at work in several realms."—S. J. Lachman.

139. Anon. Prisuzhdenie E. A. Asratianu zolotoi medalii im. I. P. Pavlova. [The award of the Pavlovian gold medal to E. A. Asratian.] *Vestn. Akad. Nauk SSSR*, 1962, 32(2), 105.—A short account is given of Asratian's contributions to a deeper understanding of conditioned-reflex theory, along with his portrait and the reproductions of the 2 sides of the gold medal awarded to him by the USSR Academy of Sciences.—I. D. London.

140. Kaplan, Alex H. (Washington U.) Trends in Soviet psychiatry. *Ment. Hyg., N. Y.*, 1962, 46, 20-30.—A review of the relationship of Soviet government philosophy to Soviet psychiatry and a report of the incidence of mental illness in the Soviet Union are presented. Discussions of research trends and Pavlovian psychotherapy treatment procedures are also included.—M. H. Lewin.

141. Kostjuk, P. G. U fiziologov Avstralii. [With the physiologists of Australia.] *Vestn. Akad.*

Nauk SSSR, 1962, 32(2), 84-87.—The author describes the neurophysiological research being conducted in Australia.—I. D. London.

142. Mitra, S. C. (Indian Inst. Social Welfare & Business Management, Calcutta) Biographical sketch. *Psychol. Stud., Mysore*, 1961, 6(1), 1-9.—Autobiographical notes, mainly referring to the development of psychology in India, are given.—U. Pareek.

143. Nuttin, Joseph. (U. Louvain, Belgium) Psychology in Belgium. Louvain, Belgium: Publications Universitaires, 1961. 80 p. \$1.60.—A concise history of psychology in Belgium serves as an introduction to an outline of current trends in Belgian psychology, with centers in the universities of Brussels, Ghent, Liège, and Louvain.—W. J. Koppits.

144. Pick, Herbert L., Jr. (U. Wisconsin) Research on taste in the Soviet Union. In Morley R. Kare & Bruce P. Halpern (Eds.), *The physiological and behavioral aspects of taste* (see 37: 256). Pp. 117-126.—A review of research in the USSR. "Soviet contributions . . . have been rather of a methodological than a substantive nature, particularly the unconditioned- and conditioned-reflex methods as well as the modification of the one-bottle method. In addition, imaginative work has been started on such variables as oxygen deficiency, external temperature, and occupational setting."—E. Y. Beeman.

145. Russell, Roger W. Applied psychology: 1961. *Nord. Psykol.*, 1962, 14(1), 1-5.—A report on the XIV International Congress of Applied Psychology held in Copenhagen from August 13 to 19, 1961.—L. Goldberger.

146. Samarin, IU. A. et al. (Eds.) Materialy leningradskoi zonal'noi psikhologicheskoi konferentsii. [Materials of the Leningrad Regional Psychological Conference.] Leningrad, USSR: No publisher indicated, 1958. 106 p.—Abstracts are provided of papers read at the Leningrad Regional Psychological Conference in May 1958. The papers are grouped under the headings: general problems of psychology, sensation and perception, thinking, speech and language, needs and interests, capabilities, the psychology of work, the psychology of sport, and pathological psychology.—I. D. London.

147. Sandström, Carl Ivar. The Scandinavian Journal of Psychology: Tillkomst och en blick framåt. [The Scandinavian Journal of Psychology: Its inception and a look forward.] *Nord. Psykol.*, 1961, 13(6), 273-280.—A brief description of the formation of the English-language journal published in Scandinavia with an evaluation of its 1st year of operation.—L. Goldberger.

148. Shustin, N. A. Put' sovetskoy kosmicheskoy fiziologii. [Advances in space physiology in the Soviet Union.] *Fiziol. Zh. SSSR*, 1961, 47(10), 1217-1226.

149. Sjölund, Arne. (Pedagogic Inst. Denmark) Psykologien i sovjetunionen. [Psychology in the Soviet Union.] *Nord. Psykol.*, 1961, 13(7), 299-331.—An overview of Soviet psychology with a discussion of its place and significance in Soviet society. Based on an extensive review of the relevant literature in the western languages and several short visits to the USSR. (121 ref.)—L. Goldberger.

150. South African Psychological Association. *Proceedings: 1958-1960. Proc. S. Afr. Psychol. Ass.*, 1958-60, No. 9-10. 36 p.—Some of the papers read at the congresses held in 1958 and in 1960 are included, along with summaries or abstracts of others. Several are in English.—E. L. Borrowman.

151. Tollingerová, D. (ČSAV Prague) *Bibliografie české a slovenské psychologické literatury pro rok 1960*. [Bibliography of Czech and Slovak psychological literature in 1960.] *Ceskoslov. Psychol.*, 1961, 5, 387-394.—254 items of Czechoslovak psychological literature published during 1960 are presented.—V. Břicháček.

152. Vatsuro, E. G. *O nekotorykh fiziologicheskikh mekhanizmaxh otrazheniia i razvitiia ikh v protsesse évoliutsii*. [On several physiological mechanisms of reflection (of reality) and their development in the process of evolution.] *Vop. Fil.*, 1962, 16(1), 54-61.—The author, in developing his discussion of the evolution of adequate reflection of reality in organisms, does so on the basis of Pavlovian theory and Lenin's theory of reflection.—I. D. London.

EXPERIMENTAL PSYCHOLOGY

153. Gregory, A. H., & Devine, J. H. (U. Hull) *An electronic stimulus randomizer. Quart. J. exp. Psychol.*, 1962, 14(2), 122-124.—A circuit is described which enables 2 stimuli to be presented in random sequence with either equal or different probabilities. The choice of stimuli is determined by sampling the condition of a 2-state circuit. Experimental tests of randomness have been satisfactory.—*Journal abstract*.

154. MacLeod, Robert B. (Cornell U.) *What is a sense?* In Morley R. Kare & Bruce P. Halpern (Eds.), *The physiological and behavioral aspects of taste* (see 37: 256). Pp. 1-5.—A brief history of the study of sensations.—E. Y. Beeman.

155. Uttal, William R. (International Business Machines, Yorktown Heights, N. Y.) *The use of a summary card-punch to generate stimuli and to collect data simultaneously. Amer. J. Psychol.*, 1962, 75(1), 150-151.—The Summary Punch of the IBM 526 was modified to carry out the 2 functions simultaneously. "... this device has been used for controlling random presentation of varying current-levels to nerves, but its application obviously is much wider."—R. H. Waters.

PSYCHOPHYSICS

156. Anthony, W. S., Holding, D. H., Lion, Judith S., & Sluckin, W. (U. Durham) *Size-weight interaction in judgments of compound stimuli. Quart. J. exp. Psychol.*, 1962, 14, 77-88.—"Three sets of stimulus objects were prepared. Variation of weight was the same in each set. However, the size of the objects was the same in one set, while in another set size increased with weight, and in a third set size and weight were negatively correlated. Three groups of 16 subjects were asked to make replicated absolute judgments of the weights in each set. It appeared that judgments of weight are more affected by density when density varies than when changes of size produce constant density. As predicted, contrast between successive stimuli is greatest

when size and weight are negatively correlated, and least with positive correlation. The extent of the judged scales, and the means of these scales, follow the same pattern. Differences in discriminability between the three series whilst in the expected direction, are not significant. The hypothesis that these effects would be more apparent in the psychologically linked dimensions of size and weight, than in the relatively neutral case of size and brightness, was largely confirmed."—E. Y. Borrowman.

157. Beck, Jacob, & Shaw, William A. (Harvard U.) *Magnitude estimation of pitch. J. Acoust. Soc. Amer.*, 1962, 34, 92-98.—Using the method of magnitude estimation, the effect of the frequency of the standard upon the pitch functions for piano tones and randomly chosen pure tones was investigated. When the frequency of the standard was the lowest tone presented, the magnitude estimations yielded a function similar to the revised mel scale, and when the standard was a frequency nearer the middle of the series, the magnitude estimations yielded a steeper function closer to the original mel scale. Data show that the numerical value of the standard can affect the magnitude estimation function. The response biases relating to the frequency and numerical value of the standard may be expected to influence the pitch function determined by magnitude estimations. The nature and effect of these biases are discussed.—A. M. Small, Jr.

158. Crawford, Billy M. (Aerospace Medical Lab.) *Measures of remote manipulator feedback: Differential sensitivity for weight. USAF WADD tech. Rep.*, 1961. No. 60-591. 15 p.—The psychophysical Method of Constant Stimulus Differences was used to determine difference thresholds and Weber ratios for both direct and remote lifting of 2 standard weight stimuli. A Model 8 Master-Slave Manipulator was used for remote lifting. For a 100-gm. weight, difference thresholds were 65.42 and 110.45 gm. for direct and remote lifting, respectively. Corresponding difference thresholds for a 3000-gm. standard were 149.33 and 195.69 gm. The difference threshold indicates the fineness of weight discrimination which can be expected of a worker. Increases in difference thresholds as a function of remote lifting reflect the loss of "feel" associated with remote handling. The difference threshold is proposed as a criterion of the fidelity of cues reflected to the operator by the remote-handling system.—*USAF WADD*.

159. Goldstone, S., Goldfarb, J., Strong, J., & Russell, J. *Replication: Effect of subliminal shock upon judged intensity of weak shock. Percept. mot. Skills*, 1962, 14, 222.—Published research suggested that below threshold shocks acted as anchors upon intensity judgments of stronger shocks. 2 studies attempting better control of irrelevant variables are reported. The 1st failed to affirm anchor effects but the 2nd lead the authors to state that, "It is likely that subthreshold anchors effect the judgment of suprathreshold inputs but this influence is subtle."—W. H. Guertin.

160. Lukaszewski, J. S., & Elliott, D. N. (Wayne State U.) *Auditory threshold as a function of forced-choice technique, feedback, and motivation. J. Acoust. Soc. Amer.*, 1962, 34, 223-228.—"Shifts in the threshold of hearing were determined as a function of prolonged testing (12 sessions) with 4 experimental groups: forced-choice-feedback, no-forced-

choice-feedback, forced-choice-no-feedback, and no-forced-choice-no-feedback. The forced-choice technique was found to improve performance if used with immediate knowledge of results (feedback). Otherwise, thresholds obtained under a forced-choice procedure were poorer than those obtained under no-forced-choice instructions.—A. M. Small, Jr.

161. Mallick, A. K. (Calcutta U.) **An experiment in the applicability of some psychophysical laws.** *MANAS, Delhi*, 1961, 8, 11-14.—Of the various psychophysical laws, Fullerton-Cattell's square root law proved to provide the better explanation of the data.—U. Pareek.

162. Mallick, A. K. **Verification of Guilford's generalised psychophysical law.** *Psychol. Stud., Mysore*, 1962, 7(1), 16-22.—3 psychophysical laws (Weber's law, Fullerton-Cattell's square root law, and Guilford's n th Power Function) were tested in a psychophysical experiment on temporal estimation. Guilford's law was found to be the most satisfactory.—U. Pareek.

163. Meissner, W. W. (Woodstock Coll.) **The problem of psychophysics: Bergson's critique.** *J. gen. Psychol.*, 1962, 66, 301-309.—The critique of psychophysics presented in Henri Bergson's *Time and Free Will* is presented in regard to quantification of psychic states and the measurement of sensation. Bergson regarded psychic states as characterized by qualitative heterogeneity. The basic defect of psychophysical methods is that they eliminate the qualitative dimension of psychic experience by interpreting the intensity of psychic states in terms of the quantifiable aspects of objective physical stimuli. The relevance of Bergson's critique to the efforts of modern psychophysics is suggested.—Author abstract.

164. Mulholland, T. B. **Methods of limits and implicit standards: A comment on two experiments.** *Percept. mot. Skills*, 1962, 14, 283-290.—The application of the methods of limits relative to implicit standards was critically evaluated using 2 experiments on the visual vertical as examples. It was concluded that, when variable explicit stimuli are adjusted to implicit standards, the range of equality (analogous to DL obtained by the method of limits) should be measured. The data may be efficiently analyzed using the frequency procedure because it recovers more information than the traditional procedure.—W. H. Guertin.

165. Rambo, William W., & Watson, Robert W. (Oklahoma State U.) **An empirical comparison of two theories of judgment.** *J. gen. Psychol.*, 1962, 66, 235-240.—This study compares theories of judgment developed by Helson and Johnson when applied to judgments of length. First, judgments of a rectangular distribution of lengths were obtained followed by a series of judgments of a positively or negatively skewed distribution. For all distributions, the results indicated a closer approximation of the data with the Johnson formulation.—Author abstract.

166. Sokolov, E. N., & Mikhalevskaya, M. B. (Moscow U.) **Izmerenie effektivnosti deistviya mnogokratno nanosmogo razdrashitel'ya.** [Measurement of the effectiveness of a repeatedly present stimulus.] *Vop. Psikh.*, 1961, No. 5, 183-188.—2 mathematical techniques for evaluating the effectiveness of a near threshold stimulus in evoking a reac-

tion (e.g., EEG) were described. The 1st is an application of Bayes' theorem in which the conditional probability of a stimulus having been presented (given that a particular response occurred on a given trial) is estimated on the basis of a priori probabilities of responses occurring (given the stimulus). The 2nd method uses entropy as an index of effectiveness of the stimulus. The lower the entropy ($H = -\sum P \log P$) the more effective the stimulus. Finally a chi square criterion for assessing the reliability of the change of entropy is described.—H. Pick.

167. Stevens, S. S. (Harvard U.) **The surprising simplicity of sensory metrics.** *Amer. Psychologist*, 1962, 17, 29-39.—"Is there a single, simple, pervasive psychophysical law? Unlikely as it may seem, there appears to be such a law. Its form is a power function, and not the logarithmic relation that is almost universally cited in textbooks. . . . The psychophysical power law relating the psychological magnitude to the physical stimulus can be written $\psi = k(\phi - \phi_0)^n$ where k is a constant determined by the choice of units. The exponent n varies with the modality, and also with such parameters as adaptation and contrast." Major sections are: Evidence for the Power Law, Cross-Modality Validations, Difficulties and Impediments, Reasons for Curvature in the Loudness Function, Perturbations, and Parametric Explorations.—S. J. Lachman.

168. Warren, Richard M., & Poulton, E. C. (Shimer Coll., England) **Ratio- and partition-judgments.** *Amer. J. Psychol.*, 1962, 75(1), 109-114.—"The present study was designed as a direct test for the validity of Stevens' claim that psychophysical ratio- and partition-judgments are fundamentally different. It was found that these judgments are equivalent when comparable experimental conditions are used for lightness-judgments of gray papers. It is considered that an erroneous distinction between ratio- and partition-judgments has resulted from failure to consider artifacts introduced by incidental differences in experimental procedure."—R. H. Waters.

PERCEPTION

169. Arana, L. (Moscow State U.) **Vospriyatie kak veroyatnostnyi protsess.** [Perception as a probabilistic process.] *Vop. Psikh.*, 1961, No. 7, 47-62.—In the present investigation a square grid was subdivided into a matrix of square sectors. Each sector could be "filled" or "empty," thus potentially defining a large number of patterns. The patterns used here were letters of the Russian alphabet. Ss were required to identify these letters by tactually scanning the grid. The experiments were designed to investigate the effect of the nature and accuracy of scanning behavior of (a) differential knowledge of the alternative patterns that might be presented and (b) differential numbers of possible patterns. Results indicate that scanning time decreases rapidly with practice for all numbers of alternatives used. This decrease in time is associated with a change of scanning behavior that evolves as Ss become acquainted with the alternative letters. Scanning movements are focused on those sectors having the highest probability of differentiating between the various alternatives. In early stages of practice, and even

in later stages when the alternatives are not delimited by instruction, Ss make unnecessary scanning movements apparently to check on the possibility that new letters have been introduced. Increasing the number of alternatives also has the effect of increasing superfluous scanning movements. Gradually increasing the number of alternatives preserves scanning strategies developed by the Ss.—*H. Pick.*

170. Attneave, Fred. (U. Oregon) **Perception and related areas.** In Sigmund Koch (Ed.), *Psychology: A study of a science. Vol. 4* (see 37: 93). Pp. 619-659.—In relating "various phenomena that are called perceptual" to one another and to other psychological phenomena the essay examines the areas of: "Perception and Psychophysics," and "Perception and Learning." Relevant research is summarized and theoretical positions are presented. (82 ref.)—*E. Y. Beeman.*

171. Breland, Keller, & Breland, Marian. (Animal Behavior Enterprises, Hot Springs, Ark.) **The misbehavior of organisms.** *Amer. Psychologist*, 1961, 16, 681-684.—"In our attempt to extend a behavioristically oriented approach to the engineering control of animal behavior by operant conditioning techniques, we have fought a running battle with the seditious notion of instinct." Several instances of persistent nonreinforced behavior which interfere with learning "represent a clear and utter failure of conditioning theory." Persistent "behaviors to which . . . animals drift are clear-cut examples of instinctive behaviors. . . . It seems obvious that these animals are trapped by strong instinctive behaviors, and clearly we have here a demonstration of the prepotency of such behavior patterns over those which have been conditioned." In recent years "ethological facts and attitudes . . . have done more to advance our practical control of animal behavior than recent reports from American 'learning labs.'"—*S. J. Lachman.*

172. Carterette, Edward C., & Cole, Michael. (U. California, Los Angeles) **Comparison of the receiver-operating characteristics for messages received by ear and by eye.** *J. Acoust. Soc. Amer.*, 1962, 34, 172-178.—Ss were presented with equal-length words under 2 conditions of reception: (a) by ear, against a background of white noise; and (b) by eye, for a brief period in a tachistoscope. For each word presented, the S recorded a message and, immediately following, gave a confidence rating with respect to his accuracy of reception. The similarities between the functions for the auditory and visual modes of reception were marked. It was found that for both auditory and visual presentation the accuracy of reception was (a) directly related to the confidence rating, (b) relatively invariant over a range of signal-to-noise ratios, and (c) not impaired by the task of rating.—*A. M. Small, Jr.*

173. Fraisse, P., & Blancheteau, M. (Sorbonne, Paris) **The influence of the number of alternatives on the perceptual recognition threshold.** *Quart. J. exp. Psychol.*, 1962, 14(1), 52-55.

174. Fraisse, Paul. **Influence de la durée et de la fréquence des changements sur l'estimation du temps.** [Influence of duration and frequency of changes in time estimation.] *Année psychol.*, 1961, 61, 325-339.—In sound and visual stimulation, as in tapping, an increase in the frequency of stimulation

leads to an overestimation of duration. No effect due to frequency is found unless frequency as such is perceived. The estimation of time depends on the duration of changes, on their number and on the intervals between the slides presented.—*G. Rubin-Rabson.*

175. Francès, Robert. **Les modifications perceptives en fonction du sens objectal des contenus.** [Perceptual modification as a function of context.] *J. Psychol. norm. pathol.*, 1961, 58(1), 65-96.—This is a chapter in the author's forthcoming book on perceptual development (see 37: 176). The following topics are discussed: projection, significance and knowledge in perception, apparent movement and internal dynamics of figures, effects of context on formal organization, size and distance, and memory colors. (64-item bibliogr.)—*M. L. Simmel.*

176. Francès, Robert. **Le développement perceptif.** [The development of perception.] Paris, France: Presses Universitaires France, 1962. 279 p. NF 16.—The philosophical and biological problems connected with perception are briefly examined. The research extends to both life and laboratory situations, contrasting the influences of learning and frequency mechanisms with the effects of the functions of attention, habit, language, affectivity, context, interests, and motivation. The attitudes of the psychopathic person and divergent reactions to taboos are also considered. There is, however, a controversy, regarding the types of inference to which the development of perceptions leads. Can the conative, affective, and cognitive aspects be rigorously separated? There is a constant interrelation of the composing interior-exterior and proprioceptive factors. Only the theoretical discussion of the stimulus-response theory helps to solve this problem: the conscious perception is itself a kind of response, which emerges across one or several verbal, motor, electrodermic, etc. responses, so that the operational schema of the perception is $S \rightarrow R \rightarrow R_p$ instead of simple $S \rightarrow R$. Among the opposing theories, one of special interest is Postman and Brunner's. They see the special task of the developing perception in identification, whereas according to Gibson it is directed towards discrimination. (408-item bibliogr.)—*M. Haas.*

177. Goldstein, Michael J. (U. California, Los Angeles) **A test of the response probability theory of perceptual defense.** *J. exp. Psychol.*, 1962, 63(1), 23-28.—The role of response factors in producing the perceptual defense effect, was evaluated. 60 college students were assigned to 3 groups: stimulus absent, stimulus present, increasing information. Stimuli, presented tachistoscopically, were pairs of words (half anxiety arousing, half neutral in meaning) selected from S's word association protocol. "The results are interpreted as supporting a response probability theory of perceptual defense. It is suggested that final evaluation of this theory awaits studies in which perceptual recognition scores are obtained under conditions in which no response bias is possible."—*J. Arbib.*

178. Graham, C. H., & Ratoosh, Philburn. (Columbia U.) **Notes on some interrelations of sensory psychology, perception, and behavior.** In Sigmund Koch (Ed.), *Psychology: A study of a science. Vol. 4* (see 37: 93). Pp. 483-514.—5 general topics are considered: (a) "types of stimulus-response

relations in sensory and perceptual experiments," (b) "Descriptive terminology and sensory dimensions," (c) "Relations of sensation and perception," (d) "Formal properties of psychophysical measurement," and (e) "Rational accounts of process in sensory experiments versus scaling." (49 ref.)—E. Y. Beeman.

179. Hirsh, Ira J., & Sherrick, Carl E., Jr. (Central Inst. Deaf, St. Louis, Mo.) **Perceived order in different sense modalities.** *J. exp. Psychol.*, 1961, 62(5), 423-432.—A series of studies was carried out in which it was shown that the amount of time that must intervene between 2 events in order for S to report correctly which of these 2 events preceded the other is approximately 20 msec. This holds over all modalities studied. "Whereas the time between successive stimuli that is necessary for the stimuli to be perceived as successive rather than simultaneous may depend upon the particular sense modality employed, the temporal separation that is required for the judgment of perceived temporal order is much longer and is independent of the sense modality employed."—*J. Arbit.*

180. Ittelson, W. H., & Seidenberg, B. (Brooklyn Coll.) **The perception of faces: A further study of the Engel effect.** *J. Psychol.*, 1962, 53(2), 247-255.—The Engel Effect which involves the stereoscopic presentation of pictures of faces was studied using a factorial design. The following results were obtained: (a) The report of no change following the end of the procedure (Engel Effect) occurred in 62% of the trials in the experimental group. (b) While no change was seen in 39% of the similar pair trials in the control group, there was a significant difference between the experimental groups and the control group in the frequency of reports of no change. (c) There was a highly significant difference in the response to similar as opposed to disparate pairs of photos, indicating that the Engel Effect is dependent, in part, on the relative similarity of the photos involved.—*Author abstract.*

181. Ittelson, William H. (Brooklyn Coll.) **Perception and transactional psychology.** In Sigmund Koch (Ed.), *Psychology: A study of a science*. Vol. 4 (see 37: 93). Pp. 660-704.—The problem of a definition of perception and 3 of the major approaches, phenomenological, S-R, and functional are discussed. The transactional approach is examined more thoroughly. Some research deriving from this approach is summarized, such as studies utilizing aniseikonic lenses, binocular rivalry, rotating trapezoids, and perceived movement. (49 ref.)—E. Y. Beeman.

182. Lacey, O. L. (U. Alabama) **The human organism as a random mechanism.** *J. gen. Psychol.*, 1962, 66, 321-325.—98 Ss were instructed to draw a chord (or set of chords) at random across a circle with an inscribed equilateral triangle. The chords were measured, and the principal result was the finding that the proportion of chords found to be greater than the length of the side of the inscribed equilateral triangle was .628—significantly greater than the upper predicated mathematical limit of .5. Perceptual effects were suggested to account for the finding.—*Author abstract.*

183. McDonald, Roderick P. (U. New England, Australia) **An artifact of the Brunswik ratio.**

Amer. J. Psychol., 1962, 75(1), 152-154.—Brunswik's index of perceptual constancy is shown to be subject to an "algebraic defect" which accounts for some peculiar findings by Hsia (See 18: 988), corroborated by Osgood (see 28: 5135).—R. H. Waters.

184. Meyerson, I. **Remarques sur l'objet.** [Remarks concerning the object.] *J. Psychol. norm. pathol.*, 1961, 58(1), 1-10.—The varieties of agnosias illustrate the complexity of the notion of the perceptual object. The molar object of perception has been defined by Gestalt psychology in terms of the laws of unit formation. Secondary characteristics include subjective factors: e.g., past experience, values, usages of objects. 20th-century atomic physics has all but abolished the physical object. In modern painting the rendition of realistic objects has been superseded by the play of nonobjective forms, colors, etc. There are indications that certain perceptual illusions were perceived differently by the ancient Greeks.—M. L. Simmel.

185. Musatti, Cesare L. (U. Milan, Italy) **Struttura et expérience dans la phénoménologie de la perception.** [Structure and experience in the phenomenology of perception.] *J. Psychol. norm. pathol.*, 1960, 57(2), 125-142.—The author reconsiders the several relationships between objective reality, the structure of the perception, and the nature of perceptual activity.—M. L. Simmel.

186. Phares, E. Jerry. (Kansas State U.) **Perceptual threshold decrements as a function of skill and chance expectancies.** *J. Psychol.*, 1962, 53(2), 399-407.—The hypothesis was tested that when escape from a painful stimulus as a result of S's behavior is possible only on a chance basis, the difference between pre- and postexperiment recognition thresholds for shock-associated stimuli will be smaller than in a skill situation. 3 groups of Ss—14 skill, 14 chance, and 14 nonshock Ss—were used in a modified before-after tachistoscopic threshold design. As predicted, threshold decrements were significantly greater for skill than for chance Ss for both shock and nonshock syllables. There were no significant differences between skill and nonshock groups. Decrement were greater for the non-shock group than the chance group for both classes of syllables.—*Author abstract.*

187. Poulsen, Henrik. **Intellektualistiske erfaringsteorier i amerikansk perceptionspsykologi.** [Intellectualistic empiricism in American perceptual psychology.] *Nord. Psykol.*, 1961, 13(6), 257-272.—The theories of Brunswik, Bruner, and the Ames' group bear a striking resemblance to the classic conception of perception as a quasi-intellectual process dependent on learning (Wundt, Helmholtz). Perception, in this modern version, is fundamentally veridical—veridicality being achieved by learning. The theoretical problems and difficulties of this view are pointed out.—L. Goldberger.

188. Santos, J. F., Farrow, B. J., & Solley, C. M. **Exposure frequency and the perception of a reversible perspective.** *Percept. mot. Skills*, 1962, 14, 199-209.—2 studies are presented that investigate some of the variables related to the perception of ambiguous stimuli. Frequency and duration of exposure to Necker Cubes (balanced, unbalanced to left, and unbalanced to the right) were varied and their influence on the perception of the balanced cube is

reported. Original directional preferences in cube perception are explored.—*W. H. Guertin.*

189. Smedslund, Jan. The utilization of probabilistic cues after 1100 and 4800 stimulus presentations. *Acta psychol., Amsterdam*, 1961, 18(5), 383-386.—The complex stimulus material contained 2 cues with high validity correlations. The majority of Ss showed no relevant learning after a large number of stimulus presentations. A simple "photographic impression" theory is inadequate. There seems to exist a circular relationship between learning and perception, such that learning occurs only in relation to the available perceptual schemata, but can reorganize and modify them.—*G. Rubin-Rabson.*

190. Vekker, L. M., & Lope, YU. P. (Leningrad U.) K probleme postroeniya osyazatel'nogo obraza. [On the problem of the formation of tactual images.] *Vop. Psikhol.*, 1961, No. 5, 143-153.—An investigation of tactual perception and the properties of scanning which lead to adequate perception. A sketch of the procedure and a summary of the results of several experiments on the influence of tactual-stimulus composition on perception are presented. The stimuli were cutout geometric forms. They were presented either by E moving the perimeter of the form over S's passive finger or by S actively exploring the form with one finger. The results suggested that the surface roughness, as well as duration of finger movement on the surface, influence the perception of surface length. Segmenting the scanning procedure by requiring S to explore different segments with different fingers, greatly increased exploration time and reduced accuracy of reproduction.—*H. Pick.*

191. Walk, Richard D., & Gibson, Eleanor J. (George Washington U.) A comparative and analytical study of visual depth perception. *Psychol. Monogr.*, 1961, 75(15, Whole No. 519), 44 p.—This monograph is concerned with discrimination by visual depth perception of depth downward at an edge. A wide variety of species (hooded and albino rats, cats, chickens, lambs, goats, and the human), age variants from very young (less than a day old) to adult, and dark-reared as well as normal light reared animals were all studied with specific reference to their characteristic behavior as evidenced by the avoidance of a cliff. All the animals studied gave some evidence of discriminating depth at an edge, even aquatic animals such as turtles, though in such, this appeared to be a less acute perception than was true of the terrestrials. The results on the whole give evidence of an innate depth perception, influenced in part by environmental factors and the acquisition of learned cues.—*M. A. Seidenfeld.*

192. Zener, Karl, & Gaffron, Mercedes. (Duke U.) Perceptual experience: An analysis of its relations to the external world through internal processings. In Sigmund Koch (Ed.), *Psychology: A study of a science. Vol. 4* (see 37: 93). Pp. 515-618.—The essay concentrates "upon the experimental aspect of perceptual functioning, in the hope of some clarification of its relationships to the external world" and mediating internal processes. Major areas examined include: Phase analysis of perceiving and its implications, "Phenomenal Properties and Perceptual Organizations," and "Anisotropies in Spatial Relationships." (66 ref.)—*E. Y. Beeman.*

Illusions

193. Epstein, William. (U. Kansas) A test of two interpretations of the apparent size effects in a distorted room. *J. exp. Psychol.*, 1962, 63(2), 124-128.—There are 2 explanations for the anomalous apparent size effects observed in a distorted room. The neoempiristic view explains the effects in terms of an interaction of assumptions, apparent distance, and retinal size. The relationalist interpretation refers the effects to the relational properties of the proximal situation. Using college students, the results of the 1st experiment were found to be compatible with both interpretations. The results of a 2nd experiment, however, are consonant only with the neoempiristic viewpoint.—*J. Arbit.*

194. Gardner, R. W., & Long, R. I. (Menninger Found.) Selective attention and the Mueller-Lyer illusion. *Psychol. Rec.*, 1961, 11, 317-320.—The results show a reduction of the Mueller-Lyer illusion with instruction to concentrate on the horizontal line. The finding is significant in that it points out that any adequate interpretation of the illusion must include selectivity of attention.—*R. J. Seidel.*

195. King, William L., & Gruber, Howard E. (U. Colorado) Moon illusion and Emmert's Law. *Science*, 1962, 135(3509), 1125-1126.—The perceived size of an afterimage varies with the part of the sky to which it is projected in a manner predictable from Emmert's law and the appearance of the sky as a flattened dome. This effect is directly analogous to the moon illusion.—*Journal abstract.*

196. Kristof, W. Über die Einordnung geometrisch-optischer Täuschungen in die Gestzmässigkeiten der visuellen Wahrnehmung. Teil I. [A uniform theory of geometric-optical illusions under the rules of visual perception. Part I.] *Arch. ges. Psychol.*, 1961, 113(1), 1-48.—The author tries to develop a uniform theory of geometric-optical illusion and to subsume these phenomena under the rules of ordinary space perception. Based on special experiments, illusions are regarded as effects of size-constancy. The problems of reducing illusion patterns to figural elements and of combining are solved under some restrictions.—*K. J. Hartmen.*

197. Oyama, Tadasu. (Hokkaido U., Japan) The effect of hue and brightness on the size-illusion of concentric circles. *Amer. J. Psychol.*, 1962, 75(1), 45-55.—In a series of experiments it is shown that (a) the illusion is unaffected by the similarity or dissimilarity in hue or brightness of the 2 concentric circles, (b) an increase of the illusion accompanies an increase in the brightness-difference between the outer circle and the background, (c) a decrease in the illusion accompanies an increase in the brightness-difference between the inner circle and the background, and (d) hue has no effect per se—any effect it may seem to have is ascribable to its brightness.—*R. H. Waters.*

198. Taylor, Maurice M. Geometry of a visual illusion. *J. Opt. Soc. Amer.*, 1962, 52(5), 565-569.—A new visual illusion is predicted from the assumption that the perceived distance along any path depends on the discriminability for position along the path. A disk is placed between 2 dots, so that the straight path between the dots is nearly tangent to the disk. It is predicted that, for the perceived

straight path between the dots to be tangent to the disk, the disk must overlay the physically straight path between the dots by an amount proportional to its radius. Furthermore, certain patternings of the disk are predicted to reduce the amount of illusion. All predictions are confirmed in detail. The results are compared with those obtained in an experiment on the filled-space illusion.—*Journal abstract.*

Aftereffects

199. Eysenck, H. J., Willett, R. A., & Slater, Patrick. (U. London, England) Drive, direction of rotation, and massing of practice as determinants of the duration of the after-effects from the rotating spiral. *Amer. J. Psychol.*, 1962, 75(1), 127-133.—4 groups, $N=36$ each, were tested under high or low drive and direction of rotation (expanding or contracting) of spiral, and massed practice. It was predicted that the length of the spiral after-effect would be reduced by increased drive, massing of practice, and by a contracting spiral. All predictions were verified, although the drive variable was not significant at the 5% level.—R. H. Waters.

200. Lipman, R. S., & Spitz, H. H. (Edward R. Johnstone Training & Research Center, Bordentown, N. J.) Cortical conductivity and vocabulary. *J. abnorm. soc. Psychol.*, 1961, 63(2), 459-460.—The relationship of cortical activity to kinesthetic and visual aftereffects was investigated. Cortical activity was measured by Vocabulary test scores. The results do not support a previous finding (Livson & Krech, 1955) of an inverse relationship between these variables.—G. Frank.

201. Wilson, J. (National Physical Lab., Teddington) An apparatus for recording figural after-effects. *Quart. J. exp. Psychol.*, 1962, 14(2), 119-121.—A simple apparatus is described by which figural aftereffects may be recorded directly from the S's adjustments of a test figure. Curves which have been recorded confirm the results, obtained by more laborious methods, of other workers.—*Journal abstract.*

VISION

202. Alpern, Mathew, & Barr, Lloyd. (U. Michigan) Durations of the after-images of brief light flashes and the theory of the Broca and Sulzer phenomenon. *J. Opt. Soc. Amer.*, 1961, 52(2), 219-221.—Measurements were made of the time interval between the primary stimulus and the moment of disappearance of every trace of the after-image for flashes of very intense lights of variable duration. The results can be explained on the assumption that the duration of the afterimage is determined by the time that it takes for the product of a photochemical reaction to fall to some threshold value. Certain predictions from this hypothesis are experimentally verified.—*Journal abstract.*

203. Forrest, Elliott B. (Special Services School, Nassau County, N. Y.) Vision and the visual process. *Education*, 1962, 82, 299-301.—After presenting the distinction between vision and the visual process, analysis of the 2 includes: (a) distinction between the optics of a camera and the optics of the eye, (b) where the visual problem begins, (c) visual ability, (d) the role of stress, and (e) the trainability of vision.—S. M. Amatora.

204. Hebbard, Frederick W. (Ohio State U.) Comparison of subjective and objective measurements of fixation disparity. *J. Opt. Soc. Amer.*, 1962, 52(6), 706-712.—Fixation disparity was measured while the S fixated a target 51.4 cm. away in the median plane. Prism vergence was varied through a range of 20 prism diopters base-in to 20 prism diopters base-out. Subjective measurements were made with a modified haploscope. Photographic, or objective, measurements were made by placing contact lenses with plane mirrors on both eyes of the S and reflecting light to an oscillographic camera, by using the optical-lever principle. The subjective and objective methods gave results which were in close enough agreement to support the conclusion that the mean primary unocular visual direction does not vary as the fusional stress is changed. Photographic records made with steady binocular fixation of the target for over 1 min. showed that the vergence of the eyes varies by less than 10 min. of arc, which is consistent with the concept of Panum's fusional areas.—*Journal abstract.*

205. Jones, Joan E. (Defence Research Medical Lab., Toronto, Canada) Stimulus generalization in two and three dimensions. *Canad. J. Psychol.*, 1962, 16(1), 23-36.—Generalization gradients were obtained for line segments that differed both in length and orientation from the training (standard) stimulus, and for color patches that differed in saturation, hue and brightness. The slope of the 2- and 3-dimensional gradients could be better predicted from the known unidimensional gradients by use of a circular prototype (derived from Hull's excitation hypothesis) than from either Guttman's discrimination hypothesis or a "better criterion" model.—R. S. Davidson.

206. Mackavey, William Raymond. (Michigan State U.) A further investigation of the double flash phenomenon. *Dissert. Abstr.*, 1961, 21(11), 3532.—*Abstract.*

207. Ratliff, Floyd. (Rockefeller Inst.) Some interrelations among physics, physiology, and psychology in the study of vision. In Sigmund Koch (Ed.), *Psychology: A study of a science*. Vol. 4 (see 37: 93). Pp. 417-482.—3 representative problem areas are examined: "(1) the nature of light and its place in the whole spectrum of radiant energy; (2) the manner and mechanism of the transmission and integration of activity in the nervous system; and (3) the behavioral factors involved in the formation of a discrimination." (98 ref.)—E. Y. Beeman.

208. Volkman, Frances C. (Brown U.) Vision during voluntary saccadic eye movements. *J. Opt. Soc. Amer.*, 1962, 52(5), 571-578.—"The present research compared vision during saccades with vision during fixation by means of three representative psychophysical tasks. Each stimulus pattern was presented to the fovea in the form of an instantaneous flash that was delivered before, during, or after an eye movement. The flash lasted only 20 sec. so that retinal blur due to movement was reduced to a negligible amount. The time of the stimulus flash was signaled on a continuously moving film on which the eye movements were recorded by a corneal reflection technique. Detection thresholds for dot patterns and recognition thresholds for words were found to be about 0.5 log unit higher during saccades than during steady fixation. Similar differences, though smaller and less consistent, were found in the min-

imum angles for the resolution of gratings. It is concluded that vision is not 'blanked out' during eye movements, but that it is significantly depressed even under conditions that minimize blur due to movement of the retinal image, and that assure foveal stimulation."—E. Y. Beeman.

Space Perception

209. Atwater, H. A. (Pennsylvania State U.) **Apparent distortion of relativistically moving objects.** *J. Opt. Soc. Amer.*, 1961, 52(2), 184-187.—Objects moving at velocities near the speed of light may appear to have undergone marked distortions of form and aspect when viewed by a stationary O. A procedure for finding these distortions based on the relativistic transformation law for light rays is outlined, and applied to specific examples. It is also found that lines appearing straight at rest may appear curved when in motion at high speed. The role of the finite velocity of light is illustrated by means of a nonrelativistic model.—*Journal abstract.*

210. Borresen, C. Robert, & Lichte, William H. (U. Missouri) **Shape-constancy: Dependence upon stimulus familiarity.** *J. exp. Psychol.*, 1962, 63(1), 91-97.—Using college students, the hypothesis was tested that shape-constancy is a positive function of shape familiarity. Familiarity was defined as the number of times the shapes were presented during a familiarization period. The stimuli were 5 moderately complex shapes systematically constructed from randomly determined coordinates. The results showed that shape-constancy was a positive function of shape familiarity; that shape as a main effect was significant; and that the interaction of shape and frequency (in determining S's matching of a variable shape to the standard stimuli) was significant. Orientation during the familiarization period was not significant. Moreover, the number of orientation positions, within a given range, seemed to be unimportant.—*J. Arbit.*

211. Braunstein, Myron Lee. (U. Michigan) **Rotation of dot patterns as stimuli for the perception of motion in three dimensions: The effects of numerosity and perspective.** *Dissert. Abstr.*, 1961, 21(12), 3860.—*Abstract.*

212. Brown, Donald R., Naylor, James C., & Michels, Kenneth H. (Purdue U.) **Perception of real movement as a function of angle of approach.** *Amer. J. Psychol.*, 1962, 75(1), 144-146.—". . . an attempt to determine the effect of angle of approach on amount of movement necessary to perceive a point-source of light as being in motion. It was found that as angle increased threshold decreased. This result was interpreted as being primarily a function of rate of movement. . . . It is suggested that the relationship between rate of movement and threshold is curvilinear."—R. H. Waters.

213. Burgh, Peter, & Grindley, G. C. (U. Cambridge) **Size of test patch and simultaneous contrast.** *Quart. J. exp. Psychol.*, 1962, 14(2), 89-93.—2 experiments were done to find the effect on simultaneous brightness contrast of placing test patches in, as against outside, the fovea. When the display was magnified so that the test patches were outside the fovea no statistically significant effect was found. Very short exposures, to eliminate eye movements, did not appear to reduce contrast.—*Journal abstract.*

214. Carlson, V. R. (National Inst. Mental Health) **Size-constancy judgments and perceptual compromise.** *J. exp. Psychol.*, 1962, 63(1), 68-73.—"A 'perspective-size' instruction designed to make explicit the response bias postulated to be present in size-constancy judgments of objective-size clearly produced a greater degree of over-estimation than objective-size instruction. The difference from a physically correct size-match was as great as that obtained in the opposite direction when Ss judged in terms of projective-size. Perspective-size was positively correlated with objective-size, negatively correlated with projective-size. It is argued that size-constancy represents the basic functional relationship between object-size and perceived-size, in preference to the view that perceived-size is a compromise between object-size and angular retinal-image size."—*J. Arbit.*

215. Dillon, D. J. **Estimation of bodily dimensions.** *Percept. mot. Skills*, 1962, 14, 219-221.—Estimates of bodily dimensions did not vary systematically with repeated testing. The errors of estimate did not differ among themselves, except when knee height was estimated, in which case there was a large error of overestimation for both ascending and descending estimates. The descending estimates were significantly greater than the ascending estimates for 6 of the 9 dimensions estimated. Except for the knee height estimates, the ascending estimates did not differ from the physical measurements. The descending estimates of the 5 height-dimensions were significantly greater than the physical measurements, those of the horizontal dimension were not.—W. H. Guertin.

216. Dillon, D. J. **Measurement of perceived body size.** *Percept. mot. Skills*, 1962, 14, 191-196.—A device providing for the direct measurement of perceived body size has been developed. 41 Ss (20 nonpatient controls, and 21 psychotic patients) estimated the bodily dimensions of height, width, and depth with the aid of this device. There were no patient-control differences, sex differences, or session differences in the errors of estimate. The descending estimates were greater than the corresponding ascending estimates of all 3 dimensions. The descending estimates were significantly different from the true dimensions of height and depth, while the ascending estimates were not. Overall estimates were significantly different from the measurements of actual height.—W. H. Guertin.

217. Dodwell, P. C. (Queen's U., Kingston, Ontario) **A test of two theories of shape discrimination.** *Quart. J. exp. Psychol.*, 1962, 14(2), 65-70.—An experiment is reported which confirms a prediction from the writer's theory of shape recognition. The same experiment is held to refute an alternative theory; but this refutation is not conclusive, since the alternative theory has not been clearly stated and can be interpreted in several conflicting ways. It is shown that these possible interpretations of the alternative theory all yield predictions which are not confirmed by the present findings.—*Journal abstract.*

218. Gogel, Walter C. (USA Medical Research Lab., Ft. Knox) **The effect of convergence on perceived size and distance.** *J. Psychol.*, 1962, 53(2), 475-489.—The role of absolute convergence in the perception of absolute size and distance was

investigated using convergence values from 0 to 12 degrees. Perceived absolute size was measured by means of a kinesthetic adjustment. With this method, the apparent width of a binocular object of constant angular size was measured at the different convergence values. Perceived absolute distance was measured by providing a visual ruler consisting of a monocularly observed alley containing numbered rectangles. The O judged the apparent position of the binocular object with respect to the alley for the values of convergence previously used with the size judgments. In general, the study supports the conclusion that, even in situations in which no conflicting cues are present, absolute convergence is an imprecise and frequently a negligible determiner of perceived size and distance.—*Author abstract.*

219. Goldstein, Alvin G. (U. Missouri) **Familiarity and apparent complexity of random shapes.** *J. exp. Psychol.*, 1961, 62(6), 594-597.—“Judgments of the complexity of 24 familiar and 26 unfamiliar random shapes of matched physical complexity were obtained from 55 Ss. Familiarization was accomplished with a 10-trial paired-associate learning session 48 hr. prior to the complexity judging session. The familiar shapes were judged to be significantly less complex than the unfamiliar shapes.”—*J. Arbit.*

220. Harcum, E. Rae, & Dyer, Dorothy W. (Coll. William & Mary) **Monocular and binocular reproduction of binary stimuli appearing right and left of fixation.** *Amer. J. Psychol.*, 1962, 75(1), 56-65.—Os were asked to reproduce test patterns made by darkening various ones of a 10-circle template. The fixation-point was between the 5th and 6th circle of the template. Under conditions of both monocular and binocular viewing, accuracy was higher for the left-field patterns. The results are interpreted in terms of a “non-structural and, therefore, presumably learned tendency” favoring left-field elements.—*R. H. Waters.*

221. Highleyman, W. H. **The design and analysis of pattern recognition experiments.** *Bell Sys. tech. J.*, 1962, 41(2), 723-744.—A popular procedure for testing a pattern recognition machine is to present the machine with a set of patterns taken from the real world. The proportion of these patterns which are misrecognized or rejected is taken as the estimate of the error probability or rejection probability for the machine. This testing procedure is discussed for the cases of unknown and known a priori probabilities of occurrence of the pattern classes. The differences between the tests that should be made in the 2 cases are noted, and confidence intervals for the test results are indicated. These concepts are applied to various published pattern recognition results by determining the appropriate confidence interval for each result. The problem of the optimum partitioning of a sample of fixed size between the design and test phases of a pattern recognition machine is discussed. One important nonparametric result is that the proportion of the total sample used for testing the machine should never be less than that proportion used for designing the machine, and in some cases should be a good deal more.—*A. M. Small, Jr.*

222. Hitchcock, L., Jr., Brown, D. R., Michels, K. M., & Spirito, T. **Stimulus complexity and the judgment of relative size.** *Percept. mot. Skills*, 1962, 14, 210.—Arnoult's conclusion that size judgments

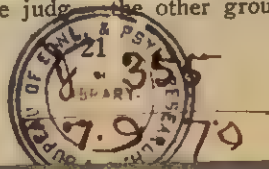
may be attributed to differences in area and are relatively independent of differences in other figural characteristics is examined. Findings for 150 straight-line, 2 dimensional shapes suggest that judgment of size is a multivariate response to the stimulus complex rather than a simple correlate of area differences.—*W. H. Guertin.*

223. Hoffman, Elbert Lee. (Princeton U.) **The role of action in defining and changing visual perception.** *Dissert. Abstr.*, 1961, 21(10), 3158-3159.—*Abstract.*

224. Julisz, Bela, & Miller, Joan E. **Automatic stereoscopic presentation of functions of 2 variables.** *Bell Sys. tech. J.*, 1962, 41(2), 663-676.—It has been demonstrated that objects with a randomly dotted surface permit the determination of binocular parallax and, thus, can be seen in depth even though they are devoid of all other depth cues. This random surface presentation has the advantage that the random brightness points can be evenly and densely placed, whereas the classical contour-line projection at equally spaced heights may leave empty spaces between adjacent contour-lines. A digital computer is used to generate the 3-dimensional image of a given $z = f(x, y)$ function and to wrap its surface with points of random brightness. The stereo projections of the function are obtained and, when viewed stereoscopically, give the impression of the 3-dimensional object as being viewed along the z -axis. The random surface prevents the accumulation of clusters of uniform regions or periodic patterns which yield ambiguities when fused.—*A. M. Small, Jr.*

225. Karn, Harry W., Gregg, Lee W., & Pitz, Gordon F. (Carnegie Inst. of Technology) **The effect of systematic and nonsystematic presentation of stimuli on peripheral visual acuity.** *J. Psychol.*, 1962, 53(2), 491-497.—An analysis of responses to Landolt rings presented 5 degrees out from the fovea showed a differential effect of exposure time on peripheral visual acuity as the result of a systematic and nonsystematic presentation of the stimuli. Significantly more errors occur under conditions of nonsystematic presentation when exposure times are .1 and .2 sec.; with exposure times of .5 and 1 sec., these differences disappear. Apparently, prior knowledge of where the stimulus will appear elicits behavior which enables S to improve the accuracy of his perceptual responses.—*Author abstract.*

226. Rambo, William W. (Oklahoma State U.) **Absolute judgment of a restricted distribution of context stimuli.** *J. gen. Psychol.*, 1962, 66(2), 169-178.—Ss were presented with a series of white cards on which appeared groups of black dots. Both the size of the cards and the number of dots were varied over a range of 9 intervals. 3 experimental groups judged the numerosness of dots on a 5-point scale. For one group there was a positive relation between card size and number of dots—large cards had many dots; for a 2nd group the relationship was negative; for a 3rd group, random. A control group judged the size of the cards. After these 162 judgments were made, all Ss were instructed to judge card size on the same 5-point scale and were presented with a series of blank cards of the 5 smallest previous sizes. A 2nd control group judged only the cards of Part II. This group judged Card 5 significantly higher than the other groups, indicating an anchoring influence



of the 1st trials. There were no differences among groups on judgment of dots, but they did differ on the Part II judgments. A mediational process was suggested.—*E. Y. Beeman.*

227. Roelofs, C. Otto. Equidistance tendency. *Acta psychol., Amsterdam*, 1961, 18(5), 368-382.—Gogel's equidistance tendency in the field of depth localization is examined: Is direction of related objects influential? What is the physiological basis of the equidistance phenomenon? Certain phenomena are not in agreement with the latter: in the absence of known distance cues, a monocularly observed object is usually localized slightly nearer than a nearby binocularly observed object; objects localized lower in the visual field are localized slightly nearer than objects situated in the visual field; there is a difference in depth as a result of a more temporal or more nasal, or a more right-sided or more left-sided position in the visual field. The PANUM effect (when 2 vertical lines, placed close together, are presented to 1 eye while only 1 such line is presented to the other eye, the nasal line in front of the 1st eye is localized as nearer) is tested.—*G. Rubin-Rabson.*

228. Triesman, Anne. (Oxford U.) Binocular rivalry and stereoscopic depth perception. *Quart. J. exp. Psychol.*, 1962, 14(1), 23-37.—An investigation was made of stimulus factors causing retinal rivalry or allowing stereoscopic depth perception, given a requisite positional disparity. It is shown that similar color information can be "filtered" out from both eyes, that stereopsis is not incompatible with rivalry and suppression of one aspect of the stimulus, and that the strongest cue for perception of stereoscopic depth is intensity difference at the boundaries of the figures in the same direction at each eye. Identity of color can also act as a cue for stereopsis. The brightness of different monocular figures seen in the stereoscope in different combinations was estimated by a matching technique, and it is suggested that the perceived brightness is a compromise between the monocular brightness difference between figure and ground seen in relation to the binocular fused background, and the mean brightness of the figures. The results are discussed in terms of neurophysiological "on," "off," and continuous response fibers.—*Journal abstract.*

229. Wolfe, Robert. (Eastman Kodak Co., Rochester, N. Y.) Width of the human visual spread function as determined psychometrically. *J. Opt. Soc. Amer.*, 1962, 52(4), 460-469.—The response of the human visual system to an optical image is assumed to be linearly related to the logarithm of the spread function of the photographic system projected onto the retina combined with the spread function of the visual system. From psychophysical data derived from viewing (at different distances) a series of pictures generated with different spread functions, an estimate is obtained of the variance ranges from 3μ to 8μ , depending on the techniques used and on the training of the judges. Although the residual errors in this determination are small, they show systematic trends, indicating that definition depends on other factors than the composite variance.—*Journal abstract.*

230. Zapparoli, G. C., & Ferradini, F. G. (U. Milan, Italy) Les effets perceptifs de la stimulation visuelle a fréquences intermittentes et sub-

fusionnelles. [Perceptual effects of intermittent visual stimuli of subfusion frequencies.] *J. Psychol. norm. pathol.*, 1960, 57, 143-164.—Intermittent light stimuli of subfusion frequencies applied to the same retinal area results in the perception of apparent movement with characteristics different from those previously described (alpha, beta, gamma, phi, W), for which the kinetic organization of rotatory motion appears to be crucial. The conditions which favor one or another kind of apparent movement are analyzed systematically.—*M. L. Simmel.*

Color Vision

231. Balaraman Shakuntala; Graham, C. H., & Hsia, Yun. (Columbia U.) The wavelength discrimination of some color-blind persons. *J. gen. Psychol.*, 1962, 66, 185-201.—An investigation of the wavelength discrimination of 11 Ss classified on the basis of test results as dichromats (4 protanopes and 7 deuteranopes) is reported. The results indicate that the wavelength discrimination of all Ss classified as dichromats is described, for the range of wavelengths between $420 m\mu$ and about $550 m\mu$, by the classical U-shaped curve. The U-shaped curve obtained can be interpreted in terms of trichromatic reduction and fusion theories. The recordable wavelength discrimination thresholds obtained with 2 deuteranopes and 3 protanopes in the long wavelength end of the spectrum may be explained by the hypothesis that such Ss use saturation as a basis for wavelength discrimination. This interpretation is alternative to one that considers the latter Ss to be protanomalous and deuteranomalous trichromats.—*Author abstract.*

232. Hoffman, Carl Stuart. (Florida State U.) Comparison of monocular and binocular color matching. *Dissert. Abstr.*, 1961, 22(1), 332-333.—*Abstract.*

233. IArbus, A. L. (Inst. Biological Physics, Moscow, USSR) O nekotorykh opytakh s izobrazheniem, nepodvizhnym otnositel'no setchatki. [On some experiments on the image, motionless relative to the retina.] *Biofizika*, 1962, 7(2), 207-210.—The author continues his previous investigations of the "empty field," defined as a "test field within which all discerned differences disappear"—a phenomenon emerging 1-3 sec. after a "test field remains unchanged and motionless with respect to the retina." In this study the author investigates the influence of the retinal surround of the empty field on the perceived color of the latter when the former is flashing or changed with respect to color or brightness. The perceived color of the empty field becomes indistinguishable from a regularly flashing surround, if the flashing frequency of the surround begins to exceed 3-6 per sec.—*I. D. London.*

234. Le Grand, Yves. (Museum National d'Histoire Naturelle, Paris) Couleur et perception. [Color and perception.] *J. Psychol. norm. pathol.*, 1961, 58(3), 257-269.—A discussion of color in physical, physiological, psychological, and philosophical terms. The author reaches "the comforting conclusion that the good sense of naive realism is, with respect to the problem of color perception, more fruitful than philosophical speculations. The perceived object does have the color which the eye lends it (under normal conditions)."—*M. L. Simmel.*

235. Sperling, H. G., & Jolliffe, C. L. (Honeywell Research Center, Hopkins, Minn.) Chromatic response mechanisms in the human fovea as measured by threshold spectral sensitivity. *Science*, 1962, 136(3513), 317-318.—Threshold sensitivity was measured with 40-degree surrounds of 5.3 and 800 trolands of white, and 509, 580, and 690 m μ spectral light. With the brighter white surround there appeared peaks at 550, and 570 and a shoulder at 600 m μ . These were selectively eliminated by the spectral surrounds.—*Journal abstract*.

Visual Sensitivity

236. Chainova, L. D. (Moscow, USSR) Issledovanie sensibilizatsii temnoadaptirovannogo glaza pri dlitel'nom deistvii padporogovykh razdrazhitelei. [Investigations of sensitization of the dark adapted eye under prolonged action of subthreshold stimuli.] *Vop. Psikhol.*, 1961, No. 6, 147-153.—As an index of the change of sensitivity of the eye, E used the change of exposure time required for a light stimulus to be perceived. Thus as a stimulus was repeatedly presented to a partially or a fully dark adapted eye, the time necessary for its perception became less and less. 2 different frequencies of presentation of the light stimulus were used. The higher frequency resulted in less exposure time required for detection. On the basis of this, E argues that the sensitization is not simply an effect of the course of dark adaptation but also involves the effect of stimulation with subthreshold light.—*H. Pick*.

237. Diamond, A. Leonard. (U. Hawaii) Brightness of a field as a function of its area. *J. Opt. Soc. Amer.*, 1962, 52(6), 700-706.—The brightness of a test field as a function of its area was investigated in the fovea at different levels of luminance. A circular test field, which varied in area, was presented to the S's right eye. The S's task was to match the 2 fields in brightness employing the psychophysical method of limits. The dependent variable was the test luminance required either to match a constant match luminance in brightness or to produce a constant threshold effect. The test field radius was varied in 6 steps from 2.69' to 26.86', for any 1 of 6 levels of match-field luminances from threshold to 2.56 logmL. The results showed that only at threshold were there systematic differences in test luminance as a function of test area. Threshold luminance decreased as area increased. At suprathreshold test luminances, differences that did occur were not systematic nor greater than might occur from day to day. A theoretical account is presented based upon possible inhibitory interaction in the retina of "on" by "off" nerve fibers. Curves generated by this theory are fitted to the data.—*Journal abstract*.

238. Ekman, G., & Künnapas, T. (U. Stockholm) Brightness of monochromatic light in scotopic and photopic vision. *J. Psychol.*, 1962, 53(2), 319-327.—The brightness of monochromatic light of 6 wavelengths was measured by the method of magnitude estimation under scotopic and photopic conditions. All the data were adequately described by power functions. The value of the exponent was nearly constant, approximately 0.35, for all wavelengths under both conditions.—*Author abstract*.

239. Erlick, Dwight E. (Wright-Patterson AFB) The ability to filter noise from a visual task when

the noise and signal are presented sequentially. *J. exp. Psychol.*, 1962, 63(2), 111-114.—"Two levels of signal intensity and five signal-to-noise ratios (ranging from 1 to 22) plus a no-noise condition were used. A condition using blank time intervals instead of noise at all signal-to-noise ratios was also used. The task involved the judgment of the relative frequency of two random sequential categories (letters A and B presented visually). Ten different letters randomly interspersed among As and Bs represented the noise. There were no significant differences among any of the foregoing conditions, indicating that Ss effectively filtered out the noise when it was presented in sequential relationship to the signal."—*J. Arbib*.

240. Fehrer, E., & Smith, E. Effect of luminance ratio on masking. *Percept. mot. Skills*, 1962, 14, 243-253.—The masking of a test flash through the simultaneous or delayed stimulation of neighboring retinal areas was investigated over a range of test flash luminances. Test flash luminance determined the shape of the function relating degree of masking of the test flash to delay in the presentation of the masking stimuli. The results are consistent with the assumption that 2 distinct types of masking, simultaneous contrast and metacontrast, influenced the phenomenal characteristics of the test flash.—*W. H. Guertin*.

241. Hyman, Aaron. (Columbia U.) Foveal flicker-fusion frequency for interrupted light superposed on steady light. *Dissert. Abstr.*, 1961, 22(1), 333-334.—*Abstract*.

242. Ikeda, Mitsuo, & Boynton, Robert M. (U. Rochester) Effect of test-flash duration upon the spectral sensitivity of the eye. *J. Opt. Soc. Amer.*, 1962, 52(6), 697-699.—When an increment threshold is measured as a function of the radiance of an adapting field, the so-called threshold-versus-radiance curve is obtained. Stiles has shown by the 2-color threshold technique that this curve is not necessarily smooth but can have inflections whose nature depends upon the conditions. From this he reasoned that the mechanism responsible for the threshold changes from one to another with a change of adapting level, all conditions otherwise being kept constant. In the present paper it is shown that an analogous situation can occur with the threshold-versus-duration curve, which is sometimes called a temporal summation curve. Instead of a change of adapting level, a change in the duration of the test stimulus is considered. An assumption is made that each mechanism has its own threshold-versus-duration curve, and that the overall threshold-versus-duration curve is determined by their relative positions. As an example of the utility of this analysis, 2 sensitivity curves of the eye were obtained with test stimuli of 2 different durations, 100 and 12.5 msec. It is argued that they are different in shape because of a change in the contribution of the responsible mechanisms which can be interpreted in terms of the relative positioning of threshold-versus-duration curves.—*Journal abstract*.

243. Luriya, A. R., Pravdina-Vinarskaya, E. N., & Yarus, A. L. (Moscow) K voprosu o mekhanizmax dvizhenii glaz v protsesse zritel'nogo vospriyatiya i ikh patologii: Simultannaya agnoziya i opticheskaya ataksiya. [On the question of the mechanisms of eye movements in the process of visual

perception and their pathology: Simultaneous agnosia and optical ataxia.] *Vop. Psikhol.*, 1961, No. 5, 159-172.—A patient was referred to the Institute of Neurosurgery with the complaint that he was unable to see more than one object at a time. Clinical tests indicated sluggish and impaired optokinetic and vestibular nystagmus and that the right visual field was partially reduced. EEG recordings indicated absence of alpha rhythm in the visual cortex and unusual response patterns to change of visual stimuli in this area. Careful testing of perception of objects confirmed the patient's original complaint. Objects could only be seen one at a time, and this capacity was independent of the visual angle subtended by the object. Photographs of eye movements made under presentation of various stimuli indicated that the patient could fixate and track a single moving stimulus but could not shift the point of fixation at will. Eye movements which did not occur under presentation of complex stimuli were unrelated to the contours of the stimuli, and the patient lost his initial reference. Injection of caffeine and anticholinesterase preparation succeeded in temporarily reducing the impairments. A more permanent but slight degree of improvement was obtained by a technique of retraining the S to use kinesthetic feedback in place of visual as a basis for coordinating his eye movements.—*H. Pick.*

244. **Matin, Leonard.** (Johns Hopkins U.) **Fourier treatment of some experiments in visual flicker.** *Science*, 1962, 136(3520), 983-985.—This report analyzes some experiments in visual flicker recently described by Forsyth and Brown. The assumption that only the 1st Fourier component of their stimuli is at the flicker threshold, the other components being below threshold, provides a model that accurately predicts their data. Hence, contrary to the conclusions drawn by Forsyth and Brown, no new nonlinear property of the visual system has been demonstrated.—*Journal abstract.*

245. **Severin, S. L.** **Recovery of visual discrimination after high intensity flashes of light.** *USAF SAM Rep.*, 1961, No. 62-16, 11 p.—4 Ss were exposed to light flashes of 0.15-second duration ranging from 645 lux to 56,180 lux as measured at the corneal plane. Each S was tested randomly 5 times at each illumination. Recovery was measured as the period of time required after exposure for S to regain sufficient visual discrimination to perceive testing luminances of 0.06 and 0.013 ft-L. Inter-S variability of recovery time was greater than intra-S variability. Recovery time increased significantly with increasing flash intensity. Response to increasing intensity of the test flashes was significantly different for the 2 testing luminances.—*M. C. Payne, Jr.*

Eye Movements

246. **Battro, Antonio M., & Fraisse, Paul.** **Y a-t-il une relation entre la capacité d'appréhension visuelle et les mouvements des yeux?** [Is there a relation between the capacity for visual apprehension and eye movements?] *Année psychol.*, 1961, 61, 313-324.—When the duration of stimuli is altered, eye movements grow slowly up to a point and then are proportional to the duration. Apprehension increases rapidly, reaching a plateau, at which time (2-3 seconds) the new ocular movements become useless. For longer durations (6-10 seconds) responses increase slightly. The conclusion is that apprehension

is relatively independent of ocular activity.—*G. Rubin-Rabson.*

247. **Collins, William E.** (Federal Aviation Administration, Oklahoma City) **Effects of mental set upon vestibular nystagmus.** *J. exp. Psychol.*, 1962, 63(2), 191-197.—"During rotational stimulation Ss were instructed, in different test sessions, to: (a) do mental arithmetic, (b) make estimates of subjective velocity, (c) reproduce durations of sound stimuli, and (d) assume a state of reverie. The reverie state resulted in significantly less recorded nystagmus than the other three tasks, while mental arithmetic was the most efficacious means of obtaining a vigorous response. A factor of sustained alertness seems to be an important condition for the maintenance of nystagmus."—*J. Arbib.*

248. **Guedry, Fred E., Jr., & Graybiel, Ashton.** (Fort Knox, Ky.) **The appearance of compensatory nystagmus in human subjects as a conditioned response during adaptation to a continuously rotating environment.** *USA Med. Res. Lab. Rep.*, 1962, No. 531, 23 p.—Previously published in *USN School of Aviation Medicine and NASA Joint Research Reports* (see 36: 4BL23G).

249. **Mackworth, Norman H., & Kaplan, Ira T.** (Stanford, Conn.) **Visual acuity when eyes are pursuing moving targets.** *Science*, 1962, 136(3514), 387-388.—Acuity for a stationary test object decreased when the eye followed a moving fixation target. This effect became larger with increased target speed, with decreased illumination, and with longer exposure of the acuity object. The acuity object's orientation also influenced the results.—*Journal abstract.*

250. **Scott, D. M.** (Defense Research Medical Lab., Toronto) **An annotated bibliography of research on eye movements published during the period 1932-1961.** *Def. Res. Med. Lab. Rep.*, Toronto, 1962, No. 246-11, 107 p.—A bibliography with abstracts or summaries divided into 6 sections: apparatus and techniques, corneal reflection and photography, electro-oculography and electromyography, optical levers, established images, and review and general interest articles.—*C. T. Morgan.*

251. **Simpson, J. A.** (U. Edinburgh, Scotland) **The clinical physiology of the lower motor neurone.** *Develpm. Med. child Neurol.*, 1962, 4(1), 55-64.—"Electromyography provides a sensitive method of examining the structure and function of motor units. The information so obtained must be interpreted in the light of clinical and other electrodiagnostic factors. Methodological difficulties are pointed out which give rise to error if not appreciated."—*T. E. Newland.*

252. **White, Carroll T., Eason Robert G., & Bartlett, Neil R.** (USN Electronics Lab., San Diego, Calif.) **Latency and duration of eye movements in the horizontal plane.** *J. Opt. Soc. Amer.*, 1961, 52(2), 210-213.—The electrical method of eye movement recording (EOG) was used to study the reactions of the eyes when Ss attempted to fixate as quickly as possible on light stimuli appearing at various points along the horizontal plane. Each eye was recorded separately, allowing an assessment of the degree of independence of the eyes when reacting in this way. In addition to the data concerning latency of ocular reactions and the duration of eye movements

information regarding the relative speed of movement from periphery to center as compared to movements from center to periphery was obtained. It was also found that the 2 eyes tend to act independently in regard to latency and speed of movement when moving toward peripheral stimuli.—*Journal abstract.*

CHEMICAL SENSES

253. Arfmann, Betty Lou, & Chapanis, Natalia Potanin. (Goucher Coll.) The relative sensitivities of taste and smell in smokers and non-smokers. *J. gen. Psychol.*, 1962, 66, 315-320.—6 female undergraduates were instructed to judge varying concentrations of vanilla extract in relation to a constant odor of the same substance on a 7-point rating scale. 3 Ss were nonsmokers and 3 smoked cigarettes regularly. Smokers, as contrasted with nonsmokers, consistently rated the strength of the taste sensation lower. This difference in relative acuity was significant at the .05 level of confidence. The difference in taste acuity decreased noticeably as the strength of the taste concentration decreased, perhaps as a result of the restriction of the range of the rating scale. The "Groups x Concentrations" interaction was significant at the .01 level of confidence. This experiment demonstrates that it is possible to compare reliably the intensities of the sensations from 2 related senses and to quantify these comparisons.—*Author abstract.*

254. Baker, C. H. (Toronto, Canada) Probability of signal detection in a vigilance task. *Science*, 1962, 135(3510), 46.—It is hypothesized that the probability of detecting a signal in a vigilance task depends upon its temporal location with respect to the preceding series of signals. Probability of detection should be at a maximum when the signal occurs after a temporal interval which is equivalent to the mean of the intervals between the preceding signals detected. The experimental results support this hypothesis.—*Journal abstract.*

255. Kamen, Joseph M., Pilgrim, Francis J., Gutman, Norman J., & Kroll, Beverley J. (Quartermaster Food & Container Inst., Chicago, Ill.) Interactions of suprathreshold taste stimuli. *J. exp. Psychol.*, 1961, 62(4), 348-356.—"Twelve experiments were conducted to determine how each unitary taste quality is affected by each of the other taste qualities. Solutions containing stimuli appropriate to both taste qualities were rated for intensity of sweetness, saltiness, sourness, or bitterness by a group of judges. Each experiment was independently replicated. In most cases, the effects were those of simple enhancement or masking, or no effect at all was found. Certain exceptions and complex relationships occurred, and recommendations for follow-up research were made. Various aspects of the method and design were discussed."—*J. Arbit.*

256. Kare, Morley R., & Halpern, Bruce P. (Eds.) The physiological and behavioral aspects of taste. Chicago, Ill.: Univer. Chicago Press, 1961. xvi, 149 p. \$6.00.—Transcripts of the 10 papers (see 37: 144, 154, 257, 586, 607, 622, 629, 718, 725, 728) and their following discussions given at a conference held at Cornell University in June 1960.—E. Y. Beeman.

257. Pilgrim, Francis J. (Quartermaster Food & Container Inst., Chicago, Ill.) Interactions of

suprathreshold taste stimuli. In Morley R. Kare & Bruce P. Halpern (Eds.), *The physiological and behavioral aspects of taste* (see 37: 256). Pp. 66-72.—The interactions of the 4 basic taste qualities were investigated using caffeine, sodium chloride, sucrose, and citric acid across a range of intensities. Caffeine had no significant effects upon saltiness or sweetness. It tended to enhance the effects of sourness. Salt had no significant effects on bitterness; its effects on sweetness and sourness were complex. Sugar reduced the intensity of bitterness and sourness but had no general effects on saltiness. Citric acid enhanced the effects of all 3 other tastes, the effect on bitterness being stronger at the lower levels of caffeine.—E. Y. Beeman.

SOMESTHESIS

258. Clark, Brant, & Graybiel, Ashton. Perception of the postural vertical as a function of practice in normal persons and subjects with labyrinthine defects. *USN Sch. Aviat. Med. NASA jt. res. Rep.*, 1961, Proj. MR005.13-6001, Subtask 1, Rep. No. 63; NASA Order No. R-37. 9 p.—The effects of practice on ability to set themselves to the postural vertical were compared in 9 normal Ss and 10 Ss with defective vestibular function. All of the latter had lost the function of the semicircular canals; and 6 did not perceive the oculogravic illusion, a test of otolith function. The normal Ss exhibited smaller average error than those with vestibular defects. It was concluded that pressure cues appear to be adequate to produce good performance, but the non-acoustic labyrinth also contributes to the judgment in normal Ss. The data also support the notion that the tilt chair, as used in this study, is not useful in identifying Ss without otolith function.—*USN SAM.*

259. Crawford, Billy M. (Aerospace Medical Lab.) Measures of remote manipulator feedback: Absolute judgments of weight. *USAF WADD tech. Rep.*, 1961, No. 60-591. ii, 11 p.—Man's ability to estimate weights was determined for 2 lifting conditions: direct manual lifting and remote lifting by means of an Argonne National Laboratory Model 8 Master-Slave Manipulator. The effect of interpolated weight-lifting experience upon absolute judgments of weight was also examined. Results show that: (a) means of estimates made by Ss who lift weights remotely are greater than means of estimates made by Ss who lift the same weights directly; (b) Ss tend to underestimate weights lifted directly; (c) estimates for the remote-lifting condition, even though more accurate on the average, are more variable; and (d) the tendency for Ss to underestimate weights which follow heavier weights and over-estimate those which follow lighter weights is more pronounced for direct lifting than for remote lifting.—*USAF WADD.*

260. Eijkman, E., & Vendrik, J. H. (Roman Catholic U., Nijmegen, Netherlands) Dynamic behavior of the warmth sense organ. *J. exp. Psychol.*, 1961, 62(4), 403-408.—Microwave radiation was used as a warmth stimulus, giving a relatively accurate knowledge of the time course of the temperature in the deeper layers of the skin. The dependence of the threshold of the warmth sense on the time of exposure shows adaptational effects which are in agreement with electrophysiological evidence. The characteristics of the receptors and adaptation (apparently of central origin) are discussed.—*J. Arbit.*

261. Green, Joseph B., Reese, Charles L., Pegues, J. J., & Elliott, Frank A. (Pennsylvania Hosp., Philadelphia) **Ability to distinguish two cutaneous stimuli separated by a brief time interval.** *Neurology*, 1961, 11(11), 1006-1010.—Investigations have reported that perception of 2 simultaneous but spatially separated stimuli is impaired in patients with disease of the central nervous system. This study dealt with the perception of temporally related cutaneous stimuli by a flicker-fusion type of test, employing an electronic stimulator which delivered pulses of varying duration, singly or in pairs. This discriminatory function was impaired in patients with cerebrovascular disease and parietal lobe tumors. Lesions of the spinal cord or peripheral nerve were not associated with deficient identification of paired stimuli.—R. Gunter.

262. Hatwell, Y. **La perception tactile des formes géométriques: Perception et activité perceptive.** [Tactile perception of geometric forms: Perception and perceptive activity.] *J. Psychol. norm. pathol.*, 1960, 57, 165-176.—67 blind Ss (7-17 years old) and 50 seeing Ss (5-9 years old) were tested with 3 types of geometrical forms: (a) simple overlapping figures (triangles, squares, rectangles, etc.), (b) hidden figures (Gottschaldt-Thurstone), and (c) mutilated forms. The simple overlapping figures were recognized by all seeing children, while for the blind, success increased with age. For the Gottschaldt figures, success increased with age for both groups. Comparison of early and late blindness showed no difference for the overlapping simple figures or for the Gottschaldt figures, with 1 exception (the 8-10-year-old group, where the late blinded perform significantly better than the early blinded). The mutilated figures were matched correctly by most of the 5-year-old seeing Ss and by all of the older ones, while matches were random for the blind between 7 and 9 years and then increased in correctness with age. At all ages, figures with mutilated sides were matched more correctly than those with un mutilated angles. The implications of the findings are discussed in detail, especially in reference to Piaget's theories of perceptual development.—M. L. Simmel.

263. Jones, F. Nowell; Twelker, Paul A., & Singer, David. (U. California, Los Angeles) **A waterless thermal stimulator.** *Amer. J. Psychol.*, 1962, 75(1), 147-149.—The device is an adaptation of a unit developed for the cooling of electronic transistors. It possesses a number of advantages over Wagoner's thermulator; it is small, easily portable and mountable, adaptable to S's skin temperature, and available in prefabricated form.—R. H. Waters.

264. McFarland, Joseph H., Werner, Heinz, & Wapner, Seymour. (Clark U.) **The effect of postural factors on the distribution of tactual sensitivity and the organization of tactual-kinaesthetic space.** *J. exp. Psychol.*, 1962, 63(2), 148-154.—The effects of postural tilt upon the distribution of tactual sensitivity as measured by the 2-point threshold of the palms and upon the organization of tactual-kinaesthetic space as measured by the location of the tactual-kinaesthetic straight-ahead have been reported. The findings indicate the necessity of considering postural factors as well as the tactual afferent system in a comprehensive explanation of sensitivity. For both the visual and the tactual modalities there are systematic directional shifts de-

pending on postural factors. This evidence makes it plausible to postulate an inner relationship between these 2 types of shifts—distribution of sensitivity and organization of space.—J. Arbib.

HEARING

265. Bennett, G. S. (Chrysler Corp., Detroit, Mich.) **Remarks on the paper by Montague and Strickland.** *J. Acoust. Soc. Amer.*, 1962, 34, 347.—(See 36: 4BN76M) "It is suggested that the hearing threshold shift found in underwater subjects indicates that the human ear is basically a velocity-sensitive device."—A. M. Small, Jr.

266. Coleman, Paul D. (Johns Hopkins U.) **Failure to localize the source distance of an unfamiliar sound.** *J. Acoust. Soc. Amer.*, 1962, 34, 345-346.—"The ability of Ss to judge the distance of the source of a burst of noise was studied in a free-field situation. Distance judgments by the 20 Ss were, on the first trial, unrelated to actual distance. At the end of 100 trials Ss were localizing the sources with minimum error."—A. M. Small, Jr.

267. Fletcher, John L. (USA Medical Research Lab., Fort Knox, Ky.) **Reflex response of middle ear muscles: Protection of the ear from noise.** *Sound*, 1962, 1(2), 17-23.—The use of the acoustic reflex response (the contraction of the tensor tympani and stapedius muscles) as a protective device is described. The literature on this topic is reviewed pointing out that protection is effective for impulse sounds, but less effective for high level continuous sounds.—A. M. Small, Jr.

268. Guttman, Newman. (Bell Telephone Lab., Murray Hill, N. J.) **A mapping of binaural click lateralizations.** *J. Acoust. Soc. Amer.*, 1962, 34, 87-91.—Movements were mapped of lateralized auditory images associated with 1-pps unfiltered clicks. With sensation level (SL) at 16 db. in both ears, lateralization effects were heard for interaural time differences as large as ± 15 msec. With 16 db. SL in one ear, the minimum level in the other ear producing effects was -6 db., the effect usually being a "bulge" of the image in the audible ear occurring within ± 2 msec. interaural time difference. Approximately the same time-difference limits were found, respectively, for 36 db. in both ears and 36 db. in one ear paired with the minimally effectual -2 db. in the other ear. The time-difference limits within which fusion was "complete" (only one image heard) ranged from 3-7 msec. (louder ear leading) to 3 msec. (louder ear lagging). It is suggested that the results set a bound on the contribution of direct binaural correlation to the precedence-effect phenomenon.—A. M. Small, Jr.

269. Hunt, F. V. (Harvard U.) **Role of time integration in the discrimination of frequency response patterns.** *J. Acoust. Soc. Amer.*, 1962, 34, 125.—The hypothesis is advanced that a time-invariant pattern of frequency response can be discriminated in the presence of a variable pattern of frequency-response irregularity only when the listening interval is of sufficient duration to allow the variable part of the total response pattern to be averaged out. A = B tests were used for the assessment of sound reproducing systems.—A. M. Small, Jr.

270. Kryter, K. D., Weisz, A. Z., & Weiner, F. M. (Bolt Beranek & Newman, Cambridge, Mass.)

Auditory fatigue from audio analgesia. *J. Acoust. Soc. Amer.*, 1962, 34, 383-391.—Intense auditory stimuli (combinations of "noise and music") are being used to some extent in dentistry and medicine for their analgesic effects. Maximum-exposure durations and intensities of noise and music are specified to avoid any undue amount of auditory fatigue. These specifications are based upon previous damage-risk criteria and upon the findings of experiments in which the hearing of Ss was tested before and after exposure to noise and music. The results of these new experiments are compared with the calculations made with formulas developed by others for predicting the auditory fatigue from exposure to noise. The predicted and obtained results are in very close agreement.—A. M. Small, Jr.

271. Kryter, Karl D., & Pearsons, Karl S. (Bolt, Beranek, & Newman, Cambridge, Mass) **Judgment tests of the sound from piston, turbojet, and turbofan aircraft.** *Sound*, 1962, 1(2), 24-31.—Listening tests on tape recorded aircraft noise were conducted in order to determine relative acceptability of the noise produced by various aircraft. Results indicate that a previously proposed metric, PNdb, predicts the data fairly well.—A. M. Small, Jr.

272. Meyer, Max F. **Experiments with air puffs destroy the dogma of the uniqueness of the sinusoidal wave.** *J. Acoust. Soc. Amer.*, 1962, 34, 119-121.—"The minimum number of successive air puffs required to create the sensation of a definite pitch is found to be 2. The fact that air puffs produce in consciousness only that one pitch corresponding to their frequency and not the very high pitches called for by a Fourier analysis demolishes all those 'dynamics of the cochlea' which regard such cochlear mechanics as equivalent to a mathematical development into a Fourier series."—A. M. Small, Jr.

273. Stromsta, Courtney. (Ohio State U.) **Delays associated with certain sidetone pathways.** *J. Acoust. Soc. Amer.*, 1962, 34, 392-396.—"An investigation of the temporal delays associated with internal-sidetone pathways was undertaken. The results showed delay to be a function of frequency for impulsive signals transmitted from the incisors to the mastoid process by bone and from the thyroid cartilage to the mastoid process by tissue. A similar finding was obtained from phonated signals transmitted from the vocal cords to the mastoid process by the sidetone pathways of minimum delay irrespective of media."—A. M. Small, Jr.

274. Ward, W. Dixon. (Research Center, Subcommittee on Noise, Los Angeles) **Studies on the aural reflex: II. Reduction of temporary threshold shift from intermittent noise by reflex activity; implications for damage-risk criteria.** *J. Acoust. Soc. Amer.*, 1962, 34, 234-241.—The temporary threshold shift (TTS) produced by intermittent noise was compared with that produced by steady noise. It was found that an on-fraction of 0.50 resulted in a reduction of 50% in the TTS produced by 1200-2400- and 2400-4800-cps octave bands of noise. However, in the case of 300-600- and 600-1200-cps noise, the same on-fraction reduced the TTS to about one-third the value observed after continuous stimulation. The difference is attributed to the action of the middle ear muscles, which attenuate low-frequency sounds more than high-frequency sounds. Burst duration of 600-1200-cps noise was varied, holding the on-

fraction constant at 0.50; results indicated that the same fractional reduction in TTS is produced by burst durations from 7.5 sec. to 1 min. The inadequacy of the equal-energy rule in assessing the potential danger of intermittent noise exposures is emphasized.—A. M. Small, Jr.

275. Woodhead, Muriel M. (Applied Psycho Research Unit, Cambridge, England) **Value of ear defenders for mental work during intermittent noise.** *J. Acoust. Soc. Amer.*, 1960, 32(6), 682-684.—Ear defenders were worn for protection against the distracting effects of bursts of loud, but not unacceptable, noise during a mental task. 2 types of noise were used: one characterized by high and the other by low frequencies. Performance was better with defenders than without them. The improvement was particularly marked with the high-frequency burst.—A. M. Small, Jr.

Measurement

276. Chocholle, R., & Saulnier, C. **Le seuil différentiel de fréquence: L'effet de la présence simultanée d'un son ou d'un bruit blanc sur l'oreille opposée.** [The difference threshold for frequency: The effect of the simultaneous presence of a sound or of white noise on the opposite ear.] *J. Physiol., Paris*, 1962, 54, 315-316.—The difference threshold for frequency at 10 db. above threshold at 1 Kc., measured by the method of constant stimuli, is significantly increased in all normal human Ss studied, when a tone of 1 Kc. at 40 db. is presented at the same time to the other ear. The same is true for white noise in the opposite ear at 40 db., but the increase is less. There is no significant effect when the frequency in the opposite ear is different from the test frequency.—C. J. Smith.

277. Cox, Jerome R., Jr., & Bilger, Robert C. (Central Inst. Deaf, St. Louis, Mo.) **Suggestion relative to the standardization of loudness-balance data for the telephone TDH-39 earphone.** *J. Acoust. Soc. Amer.*, 1960, 32(6), 773-774.—Loudness balance data obtained by other investigators but previously unpublished, together with loudness balance data gathered by the present authors are presented. It is suggested that a mean of the 3 sets of data be used as a standard in calibrating audiometers supplied with TDH-39 earphones.—A. M. Small, Jr.

278. Cramer, E. M. **Long-term effects of experience on judgments of loudness.** *Percept. mot. Skills*, 1962, 14, 271-280.—An experiment was conducted in which naive Ss were required to make judgments of loudness with a modification of the method of single stimuli. It was concluded that when judged stimuli are remote from an anchor, reliability and intersubject agreement are poor; and that previous experience has only an initial effect on the distribution of judgments, although it greatly affects reliability and intersubject variation.—W. H. Guertin.

• 279. Creelman, C. D. (U. Michigan) **Human discrimination of auditory duration.** *USAF CRC tech. Rep.*, No. 114. vi, 60 p.—The ability of humans to discriminate durations of auditory signals was measured using base time, increment time, and signal intensity as independent variables. 2 sine-wave signals were presented sequentially in a background of continuous white noise, and Ss were required to state for each trial whether the longer signal had occurred

1st or 2nd. The results led to the view that duration discrimination is a statistical decision-making process, and a general model was proposed that permitted accurate prediction over a wide range of experimental conditions. The model is discussed in relation to other theoretical approaches. (63 ref.)—G. H. Mowbray.

280. Creelman, Carleton Douglas. (U. Michigan.) Human discrimination of auditory duration. *Dissert. Abstr.*, 1961, 22(1), 331.—*Abstract*.

281. Elliott, D. N., Riach, W., & Silbiger, H. R. (Wayne State U.) Effects of auditory fatigue upon intensity discrimination. *J. Acoust. Soc. Amer.*, 1962, 34, 212-217.—Changes in the intensity discrimination threshold (IDT) as well as in the threshold of audibility were determined. Significant decreases in the IDT were found to follow fatiguing exposure, such changes being related in a negatively decelerating manner to temporary threshold shift. The extent of the change in the IDT as a function of fatigue was found to be inversely related to the level of the signal. As a result of these 2 relations the range of IDTs as a function of signal strength was markedly decreased for the fatigued ear.—A. M. Small, Jr.

282. Gerall, A. A., & Snyder, C. Non-specific muscular tension and auditory threshold. *Percept. mot. Skills*, 1962, 14, 179-182.—The effect on the auditory threshold of a 1000-cps tone of non-functionally related muscular exertion was tested with 16 Ss who pulled either 0, 100, or 1600 gm. No significant differences in the auditory threshold (as determined by a method of constant stimuli) were found as a consequence of weight pulling. The results support Davis' suggestion that muscular activity having no functional or "geographical" relationship to a sensory process would not influence its threshold.—W. H. Guertin.

283. Harris, Gerald G. (Bell Telephone Lab., Murray Hill, N. J.) Binaural interaction of impulsive stimuli and pure tones. *J. Acoust. Soc. Amer.*, 1960, 32(6), 685-692.—The time-vs.-intensity trade ($\Delta T/\Delta I$) in binaural lateralization was measured for pure tones and impulsive stimuli by the null method for high-pass and low-pass clicks. It was concluded that the time-vs.-intensity trade is important for the localization of high-frequency impulsive stimuli. The interaural intensity difference also affects the ability to lateralize since the error of lateralization is least when both the interaural intensity difference and interaural time difference are zero. From the foregoing and from experiments with 2 lateralized images, it was concluded that the timing information used in binaural lateralization travels along frequency-dependent neural pathways.—A. M. Small, Jr.

284. Jackson, Edward J., Fassett, David W., Riley, Edward C., & Sutton, William L. (Eastman Kodak Co., Rochester, N. Y.) Evaluation of the variability in audiometric procedures. *J. Acoust. Soc. Amer.*, 1962, 34, 218-222.—2 experiments were carried out to evaluate the variability in audiometric procedures. One was designed to evaluate the precision of the audiometric process; the other to determine the repeatability of results in individual Ss taking these examinations. Some differences were found between various instruments

used, and a learning effect was detected on the part of the Ss.—A. M. Small, Jr.

285. Jerger, James. (VA Auditory Research Lab.) Comparative evaluation of some auditory measures. *J. speech hear. Res.*, 1962, 5(1), 3-17.—An extensive battery of both conventional and special auditory tests was administered twice to a group of 27 patients with sensorineural hearing loss, and once to 30 normal listeners. Relative consistency (as defined by the coefficient of reliability, and absolute consistency, as defined by the standard error of the test-retest data) was checked carefully. Also, a comparative evaluation of the extent to which various indices differentiated the sensorineural group from the normal control group was studied. Certain measures, notably the Tone Decay Test (TDT) and the amplitude of the Békésy tracing for a continuous tone, failed to differentiate effectively between normals and sensorineurals.—M. F. Palmer.

286. Loeb, Michel, & Fletcher, John L. Reliability and temporal course of temporary threshold shift and contralateral threshold shift. *USA Med. Res. Lab. Rep.*, 1962, No. 533. 11 p.—In a previous study negligible correlations were found between 2 presumed indices of acoustic reflex action—threshold increase in the ear contralateral to the stimulated ear and temporary threshold shift reduction produced by presentation of an activating tone before each of a series of impulsive stimuli. One possible explanation is that the reliability of each index—or perhaps acoustic reflex activity itself—is sufficiently low that the hypothesized relationship is masked. Reliabilities of temporary threshold shift (TTS) and of contralateral threshold shift (CTS) were therefore measured at varying intervals after initiation or production by click or noise stimuli. CTS reliabilities ranged from low to moderate. TTS reliabilities were higher, especially immediately after exposure. TTS reduction reliability would presumably be lower. While the magnitudes of the reliabilities were such as to explain the lack of relationship of the indices, the use of either index as a diagnostic sign is not precluded.—USA MRL.

287. Melnick, William & Doerfler, Leo G. (U. Pittsburgh) Pure tone audiometry by single threshold crossing. *J. speech hear. Res.*, 1962, 5(1), 18-29.—36 children (18 males and 18 females, ranging in age from 12-3 to 14-7) were used to study an automatic audiometer in methods of single ascent and single descent. 24 children (13 females and 11 males, ranging in age from 12-1 to 14-5) were tested by conventional clinical audiometry. The sole advantage of the automatic audiometer method was the speed of the single trial test. The advantage was not enough to warrant disregard of the other problems which would develop from the use of this technique.—M. F. Palmer.

288. Morin, J. Un test de seuils différentiels auditifs. [A test of differential auditory thresholds.] *Travail hum.*, 1961, 24, 309-327.—Auditory sensitivity to small sound differences was studied by magnetic records of pure sounds: 2 sounds separated by a short interval of silence; these sounds could be increased, made equal, or decreased in intensity (SDI) or in frequency (SDF). The major results: neither had correlation with age or auditory deficiency; SDF had a low correlation with intelligence level and precision tests; both correlated with liking for

music; and both, especially SDI, had a high correlation with the occupational value of a group of 31 silent-room testers.—*R. W. Husband.*

289. **Rubin, Herbert.** (U. Pittsburgh) **Auditory facilitation following stimulation at low intensities.** *J. Acoust. Soc. Amer.*, 1960, 32(6), 670-681.—Shift in threshold was determined by comparing the reference threshold of a test pulse, presented alone, to the threshold for the test pulse preceded by a stimulating pulse. Duration, intensity, and frequency of the stimulating pulse were controlled, as were duration and frequency of the test pulse and duration of the interval between pulses. The nature of the facilitatory process, auditory or attentional, and its locus, whether peripheral or central, are discussed. (25 ref.)—*A. M. Small, Jr.*

290. **Ruhm, Howard B., & Cooper, William A., Jr.** (U. Oklahoma Medical Center) **Low sensation level effects of pure-tone delayed auditory feedback.** *J. speech hear. Res.*, 1962, 5(2), 185-193.—34 males and 46 females, age 18-48, with normal hearing were studied to determine optimal conditions for extrapolation of hearing acuity threshold from pure-tone auditory feedback data. 1000 cps tone-bursts were presented both in synchrony and delayed auditory feedback from finger tapping under 16 combinations of delay duration and sensation level. Ss tapped a simple pattern repeatedly in as constant a fashion as possible. Delayed auditory feedback effects were judged on the basis of differences in tapping rate, pressure, and number error. Effects were present at threshold with 100 msec. delay. The sharpest changes occurred at 200 msec. delay.—*M. F. Palmer.*

291. **Scharf, Bertram.** (Northeastern U.) **Loudness summation and spectrum shape.** *J. Acoust. Soc. Amer.*, 1962, 34, 228-233.—The loudness of 3-tone complexes centered at 2000 cps was studied as a function of the intensity relations among the 3 components. 2 types of spectra were investigated: (a) peaked spectra and (b) sloped spectra. A 3-tone complex whose over-all spacing was greater than a critical band was loudest, at a given SPL, when its spectrum was flat, i.e., when the components were equally intense and, more important, equally loud. Complexes whose over-all spacing was slightly less than a critical band changed little in loudness as a function of spectrum shape. The results are related to the assumption that the loudness of a complex sound is the sum of the loudnesses of the component critical bands.—*A. M. Small, Jr.*

292. **Selters, Weldon, & Ward, W. Dixon.** (Research Center, Subcommittee on Noise, Los Angeles) **Temporary threshold shift with changing duty cycle.** *J. Acoust. Soc. Amer.*, 1962, 34, 122-123.—The empirical rule that interrupted noise having an on-fraction R produces R times the temporary threshold shift (TTS) that the same noise would produce if on continuously was tested for $R \approx 0.5$. The TTS from the 1-min. and 2-min. repetition periods agreed with the value predicted by the rule; but the 4-min., 8-min., and 16-min. repetition periods gave, respectively, 1.07, 1.21, and 1.29 times the R-based values. This result indicates that the on-fraction rule breaks down when on-off times exceed about 1 min., but that the rule may be extended for repeated noises by incorporating a correction factor based on the length of the period.—*A. M. Small, Jr.*

293. **Small, Arnold M., Jr., Brandt, John F., & Cox, Phillip G.** (U. Iowa) **Loudness as a function of signal duration.** *J. Acoust. Soc. Amer.*, 1962, 34, 513-514.—“Ss were asked to change the level of a short noise burst in order to make it equally as loud as a standard 500-msec burst. Above some critical duration loudness is independent of duration but below it for each decade decrease in duration the level of the short burst must be increased about 12.5 db, independent of the level at which the standard burst is presented.”—*A. M. Small, Jr.*

294. **Swets, John A., Green, David M., & Tanner, Wilson P.** (Massachusetts Inst. Technology) **On the width of critical bands.** *J. Acoust. Soc. Amer.*, 1962, 34, 108-113.—“A different technique of analysis is applied to the experiment suggested by Fletcher [see *Rev. mod. Phys.*, 1940, 22, 47-65] for measuring the width of the critical band. This experiment determines the ability of noise bands of different widths to mask a pure tone centered in the band. The analysis considers two filters in series, one outside and one inside the observer. The width of the second filter (the critical band) can be estimated from measurements of the reduction in the noise power at the detector which is effected by the pair of filters. The width of the critical band is estimated under four different assumptions about the shape of the band. The results provide a context for discussing the reasons that may underlie the widely varying estimates of the critical bandwidth which have been obtained in previous studies.”—*A. M. Small, Jr.*

295. **Symons, J. R., & Mackay, C. K.** (U. Aberdeen) **An investigation of changes in auditory sensitivity during the performance of a mental task.** *Quart. J. exp. Psychol.*, 1962, 14(2), 104-108.—Auditory thresholds were measured while the S was relaxed and while he was doing mental arithmetic. Thresholds were lowered under the 2nd condition. Some possible explanations are briefly considered.—*Journal abstract.*

296. **Wolsk, David.** (U. Michigan) **The discrimination limen for loudness under varying rates of intensity change.** *Dissert. Abstr.*, 1961, 21(12), 3866-3867.—Abstract.

Speech Perception

297. **Black, John W., & Hast, Malcolm H.** (Ohio State U.) **Speech reception with altering signal.** *J. speech hear. Res.*, 1962, 5(1), 70-75.—Measures of binaural, 1- and 2-channel reception of spoken words were obtained from 3 groups of university students: (a) 32 native students with normal hearing, (b) 32 native students with slightly defective hearing, and (c) 32 foreign-born students with normal hearing. The 3rd group, which was markedly inferior in identifying English words aurally, was aided somewhat by the preservation of 2 channels throughout the record-listening process. A frequency-divided system, with frequencies below 1600 cps feeding 1 ear and 1600 cps the other, appeared to be slightly penalizing but not importantly so. The tests yielded expected results relative to the signal-to-noise ratio, and consistent results in differentiating among the 3 groups of participants.—*M. F. Palmer.*

298. **Chistovitch, L. A., Klaas, YU. A., Alekin, R. O.** (Inst. Physiology, Akad. Nauk, USSR, Len-

ingrad) O znachenii imitatsii dlya raspoznavaniya zvukovykh posledovatel'nostei. [On the significance of imitation for the discrimination of sound sequences.] *Vop. Psikh.*, 1961, No. 5, 173-182.—A series of experiments was designed to investigate the role of imitation of sounds on the discrimination of sequence of these sounds. The general idea of the experiments was to present a sequence of sounds to a S and ask him to make some identifying or discriminating response to the sequence. The sound elements were varied in their approximation to sounds in the spoken language and in their duration of presentation. The general results indicate that if the response called for is one that names the sound in terms of spoken language (imitation), then discrimination of sequences is more accurate than if the response is a nonimitative one.—*H. Pick.*

299. Farrimond, Thomas. (U. Liverpool) Factors influencing auditory perception of pure tones and speech. *J. speech hear. Res.*, 1962, 5(2), 194-204.—70 male factory employees, aged between 20 and 40 years, and 110 older factory employees, aged between 40 and 79 years, with medically normal ears were studied for group differences in auditory acuity. On the Mill Hill vocabulary test, given without a time limit, at low signal levels listening techniques appear to affect auditory performance. In hearing sentences there appear to be central factors related to the ability to predict or anticipate sentence items of the test. Selection of Ss on the basis of such central factors is suggested as important in the standardization of speech tests or equipment.—*M. F. Palmer.*

300. Schouten, J. F., Cohen, A., & 't Hart, J. (Inst. Perceptie Onderzoek, Eindhoven, Netherlands) Study of time cues in speech perception. *J. Acoust. Soc. Amer.*, 1962, 34, 517-518.—Using only 2 temporal samples of a periodic signal it was possible to synthesize a number of Dutch diphthongs. It is tentatively concluded that "segmentation of speech is possible once the choice of segments is determined by perceptual cues," and that "acceptable speech can be synthesized without any actual frequency transitions or formant bendings."—*A. M. Small, Jr.*

301. Sholtz, P. N., & Bakis, R. (IBM Research Center, Yorktown Heights, N. Y.) Spoken digit recognition using vowel-consonant segmentation. *J. Acoust. Soc. Amer.*, 1962, 34, 1-5.—"A procedure has been developed for recognition of spoken digits by means of digital computer simulation. Using power spectra computed at 10-msec intervals, the words are segmented into vowels and consonants. Vowels are then classified into one of 11 categories by a multivariate statistical decision method operating on approximations of the measurements. Consonants are classified into one of three categories by means of an empirically derived decision tree. Recognition is then performed by means of a dictionary search. When tested on a sample of 493 words spoken by 50 speakers, and with the internal dictionary adjusted for optimum results, 97% of the words were identified correctly. It appears that this procedure is more tolerant of interspeaker variations than those previously reported."—*A. M. Small, Jr.*

PARAPSYCHOLOGY

302. Cox, W. E. (Southern Pines, N. C.) Five-tier placement PK. *J. Parapsychol.*, 1962, 26, 35-

46.—Extending a principle applied earlier in a "3-tier" test of psychokinesis (PK), the E tested Ss for ability to influence steel balls rolling down a long incline. The incline in this experiment provided 5 "choice" points, each with a cul-de-sac for misses and an open alley for hits, which moved on to the next lower tier. The hypothesis under test was that PK acted consistently upon individual balls, either positively or negatively, during each descent so that the elimination of the misses in the upper tiers should give a higher ratio of hits in the lower ones. This hypothesis was not supported, though there were statistically significant results (more hits than misses) in the bottom tier, a finding attributed to motivational factors.—*J. G. Pratt.*

303. Hellstrom, Eva. Veridical precognition of girls dancing. *J. Soc. Psych. Res.*, 1962, 41(711), 252-254.—The writer had an apparition on the afternoon of November 12, 1961 while asleep, in which she saw teenagers dancing in brightly colored dresses of turquoise blue and cerise. She made a record of this in her diary. On November 24 she and her husband went to London and attended a play which her husband chose, *Bye Bye Birdie*, in which the same teenage scene with gayly-colored dresses of blue and cerise occurred in Act I. On returning home she showed her diary entry to a companion and her husband.—*O. I. Jacobsen.*

304. Pronko, N. H. (U. Wichita) A Classroom demonstration of "extra sensory perception." *Psychol. Rec.*, 1961, 11, 423-425.—What appears to be extrasensory perception is attained "through inapparent, plain 'sensory perception.'" The technique consists of using existing conditions of illumination to decipher the symbol on the back of ESP cards.—*R. J. Seidel.*

305. Rhine, J. B., & Feather, S. B. (Duke U.) The study of cases of "psi-trailing" in animals. *J. Parapsychol.*, 1962, 26, 1-22.—From the wide range of observations of unexplained animal behavior which suggest an ESP basis, this article selects for special consideration those cases in which pet animals followed their owners over large distances to places where the animals had never been before. From a background of 54 such cases now on hand, the writers find several that measure up well on specific criteria applied as aids to judgment. This study is not aimed at reaching scientific conclusions but at emphasizing the need and possibilities for experimental investigations.—*J. G. Pratt.*

306. Ryšl, Milan. Training the psi faculty by hypnosis. *J. Soc. Psych. Res.*, 1962, 41(711), 234-252.—The problem of psychological and sociological integration of ESP into daily life. One S was trained during hypnosis to transfer the ESP ability from the hypnotic state to normal application in waking life. After the training the S was taught to bring herself into hypnosis independent of the E. In 1 year of training she was able (a) to apply ESP ability in all cases where suitable inner psychological conditions prevailed, i.e., ESP ability was far above chance (one being 21 hits on 23 trials), and (b) to use her clairvoyant powers for solutions.—*O. I. Jacobsen.*

307. Sanders, M. S. (31 Woodbourne Ave., Leeds, England) A comparison of verbal and written responses in a precognition experiment.

J. Parapsychol., 1962, 26, 23-34.—This paper deals with ESP research carried out with 20 women college students as Ss, selected on the basis of their interest. Some preliminary pilot tests were directed toward the cultivation of favorable S-E relations and the development of a suitable experimental design. The confirmatory series, carried out with a 2-E level of safeguarding, involved testing the Ss ability to precognize random orders of ESP symbols to be selected immediately afterward. 2 methods of calling, writing and speaking, were used; and the statistical test for significance, as designated in advance, was based upon the difference between the results by the 2 methods for each S and a chi-square summation over all Ss. Statistically significant results were obtained.—J. G. Pratt.

308. Shewmaker, Kenneth L., & Berenda, Carlton W. (Oklahoma City VA Hosp.) **Science and the problem of psi.** *Phil. Sci.*, 1962, 29(2), 195-203.—Some issues and points of view concerning the acceptance or rejection of parapsychological phenomena are reviewed. Psi may be the product of the fact that scientific concepts derive from abstractive and classificatory thinking. By describing psi in a nondiscursive symbolism one may know, if not explain, the phenomenon in a manner analogous to his knowing the clinically unique case of the individual.—M. Turner.

ENVIRONMENTAL EFFECTS

309. Barnard, George W., Wolff, Harold D., & Graveline, Duane E. (Aerospace Medical Lab., Wright-Patterson AFB, O.) **Sensory deprivation under null-gravity conditions.** *Amer. J. Psychiat.*, 1962, 118(10), 921-925.—Using a water immersion method in order to minimize sensory input, and to achieve a near weightless state, 14 Air Force pilots served as Ss. Intellectual and emotional changes were observed although not as marked as in previous studies, the reasons for which are discussed.—N. H. Pronko.

310. Freedman, Danford J., Grunebaum, Henry U., Stare, Frederick A., & Greenblatt, Milton. (Brandeis U.) **Imagery in sensory deprivation.** In Louis West (Ed.), *Hallucinations* (see 37: 1588). Pp. 108-117.—Experimental Ss wore translucent or black-out goggles while lying on a bed in a small room with extraneous stimulation minimized, and reported their thoughts and perceptions during an 8-hour session. . . . the production of imagery in sensory deprivation seems to be related to a homogenous visual field regardless of the field's intensity. . . . Sensory deprivation imagery closely resembles hypnagogic (and hypnopomic) imagery. . . . Subjects are more likely to report imagery during sensory deprivation if they have a history of hypnagogic imagery than if they have not.—J. B. Thompson.

311. Fryer, D. I. (RAF Inst. Aviation Medicine, Farnborough, England) **Physiologic effects of exposure to ram pressure.** *Aerosp. Med.*, 1962, 33(1), 34-41.—A new technique to simulate ejection ram pressure is reported. A large centrifuge in water, in which the S's head was 3 feet below the surface, was used. The S was clothed in a rubber suit with diving mask. The device propelled the seat up to 32.6 feet per second, equivalent to 20 knots

water speed or 515 knots indicated air speed (IAS). Breath-holding was maintained safely even when the rise of pressure in the thorax was as much as 5.25 pounds per square inch (psi). Ram pressure of 4.9 psi was tolerated without trouble, but at higher speeds there were severe signs and symptoms. Values of forces acting upon the arms and legs up to the equivalent of 460 and 515 IAS were tabulated. For extended study it was suggested that a catapult track under water may be of value.—J. C. G. Loring.

312. Hull, J., & Zubek, J. P. **Personality characteristics of successful and unsuccessful sensory isolation subjects.** *Percept. mot. Skills*, 1962, 14, 231-240.—46 Ss were isolated in a plexiglass, domeshaped chamber under one of 2 conditions; constant darkness and silence, or unpatterned light and noise. The MMPI, Edwards' Personal Preference Schedule, the Thurstone Temperament Schedule, and a biographical questionnaire were administered. No reliable differences on any of the 40 variables measured by the personality tests could be observed between the successful and unsuccessful groups. On the biographical questionnaire, 2 of the 20 items reliably differentiated the 2 groups of Ss (combined conditions).—W. H. Guertin.

313. Miller, S. C. **Ego-autonomy in sensory deprivation, isolation, and stress.** *Int. J. Psycho-Anal.*, 1962, 43(1), 1-20.—This study attempts to cull the common elements that exist in both experimental and actual experiences of prolonged sensory deprivation and social isolation. After discussing these findings in terms of the differing theories of Rappaport and of Gill and Brennan, the author gives a rapprochement of their views.—G. Elias.

314. Mitchell, Mildred B. (Wright-Patterson AFB, O.) **Time disorientation and estimation in isolation.** *USAF ASD tech. Rep.*, 1962, No. 62-277, 13 p.—Tests were conducted to determine data on time estimations in isolation. 34 Air Force Ss, including 10 test pilots, were isolated individually. They estimated 5 seconds accurately; overestimated 1 second; tended to underestimate 10 seconds; and significantly underestimated 6, 30, 60, and 120 minutes. 12 Ss became confused or slept without knowing it, and gave incorrect number or rhythm of estimations. Even with a clock and lights, 5 of 10 Ss became confused. Ss put in dark isolation for 48 hours tended to estimate 4-hour intervals as progressively shorter. 2 aborted the experiment, 1 after hallucinating.—USAF ESD.

315. Ormiston, Donald W. (Aerospace Medical Lab.) **A methodological study of confinement.** *USAF WADD tech. Rep.*, 1961, No. 61-258, 23 p.—34 Ss divided into 2 groups were confined for 8 hours in a lighted 5 by 8 ft. cubicle where they worked occasionally on tracking, monitoring, and time estimation tasks and noted somatic complaints. Visual illusions were administered before and after confinement. 20 Ss in another group underwent all of the tests but were not confined. A battery of personality tests was given to the Ss 1-3 months before they participated. Correlations among the personality test scores, the changes in the visual illusions, and the performance tasks were computed. The results of the performance tasks showed no significant differences between the confined and non-confined groups. Time estimates did not vary significantly during confinement. Confirmatory evidence

was gained favoring the use of the spiral aftereffect and rejecting the latency of autokinesis as criterion measures of confinement stress.—E. Y. Beeman.

316. Pearson, Richard G. (Flight Safety Found., Phoenix, Ariz.) **Relationship between tie-down effectiveness and injuries sustained in lightplane accidents: 1942-1952.** *Aerosp. Med.*, 1962, 33(1), 50-59.—A statistical analysis of crash injury data on 1025 occupants involved in light plane accidents is reported. Data are for spin-stall crashes, or for collisions with the ground or objects (excepting other aircraft) while in flight. Tables and graphs are presented from which these conclusions are made: the head and upper torso should be protected by the use of a crash helmet and shoulder harness; seat belts are not enough. Energy absorbing principles should be used in the design of seats in order to reduce lumbar spine fractures in low-angle long-deceleration crashes. Although belt failure occurs more frequently than seat failure, injury severity is greater when seats fail than when belts fail. And finally, "high rates of onset of g associated with secondary pulses in long decelerations are felt to be a significant source of injuries, particularly when tie-down fails."—J. C. G. Loring.

317. Robertson, M. H. (U. Florida) **Sensory deprivation and some therapeutic considerations.** *Psychol. Rec.*, 1961, 11, 343-347.—A summarization first of the theoretical position that a person's response to sensory deprivation (SD) is describable in terms of preoccupation and suggestibility and that abnormal behavior is a deprivation phenomenon. The major therapeutic implication is to reinstate the normal level and range of external and internal stimulations by either increasing the total amount of stimulation or increasing certain classes of stimulation or introducing variety to eliminate monotony and satiation effects. Preventive therapy is possible by limited, graded SD experiences leading to tolerance or immunity against effects of prolonged deprivation.—R. J. Seidel.

318. Shurley, Jay T. (U. Oklahoma) **Mental imagery in profound experimental sensory deprivation.** In Louis West (Ed.), *Hallucinations* (see 37: 1588). Pp. 153-157.—11 Ss were requested to remain in a water tank as long as possible, in conditions minimizing sensory input. No S remained longer than 6 hours, and all Ss experienced some form of mental imagery. The phenomena reported ranged from day dreams to "fully projected hallucinatory experiences."—J. B. Thompson.

319. Silverman, A. J., Cohen, S. I., Bressler, B., & Shmavonian, B. M. (Duke U.) **Hallucinations in sensory deprivation.** In Louis West (Ed.), *Hallucinations* (see 37: 1588). Pp. 125-134.—Paid Ss, given no clues as to the nature or duration of the study, were placed in a darkened acoustical chamber for a period of 2 hours. Ss were then given a questionnaire and interviewed 3 times. Visual, auditory, and kinesthetic sensations are described. The relationships between hallucinations, illusions, and ego function are discussed. (18 ref.)—J. B. Thompson.

320. Solomon, Philip, & Mendelson, Jack. (Harvard Medical School) **Hallucinations in sensory deprivation.** In Louis West (Ed.), *Hallucinations* (see 37: 1588). Pp. 135-145.—7 of 28 Ss developed visual hallucinations in response to sensory deprivation

in a tank type respirator. 3 of these 7 also had somesthetic hallucinations. Ss who experienced hallucinations had a smaller increase in noradrenalin excretion and in urine volume output, and experienced fewer day dreams, more illusions and pseudosomatic delusions than did the nonhallucinating group. The data are discussed in terms of current concepts of hallucinations and the criteria or their definition.—J. B. Thompson.

321. Vernon, Jack A., & McGill, Thomas E. (Princeton U.) **Sensory deprivation and hallucinations.** In Louis West (Ed.), *Hallucinations* (see 37: 1588). Pp. 146-152.—20 Ss were subjected to 1 of 2 degrees of severity of sensory deprivation for 24, 48, or 72 hours. Results indicate that as the conditions of sensory deprivation become more severe the number of hallucinations decreases. A comparison is made between hallucinations occurring during confinement and those evoked by cortical stimulation.—J. B. Thompson.

SLEEP & FATIGUE

322. Olsen, Leif Ole. (New York U.) **The relationship between fatigue and the organization of the individual: An experimental analysis of the relationship between fatigue and the organization of the individual, and the effect and relationship of certain other variables to fatigue and organization.** *Dissert. Abstr.*, 1961, 21(10), 3159-3160.—Abstract.

323. Oswald, Ian. **Sleeping and waking: Physiology and psychology.** New York: American Elsevier, 1962. ix, 232 p. \$7.50.—A comprehensive review of the physiology and psychology of sleep. Chapter titles include: "The Physiological Basis of Sleep," "Sleep and Consciousness," "The EEG of Sleep," "Attention and Imagery," "Dreams," "Deprivation of Sleep," and "Sleep Mechanisms and Some Clinical Conditions." Sensory discrimination, memory and movements during sleep, hypnosis, physiological changes during sleep, and the relation of light sleep to psychoses are also discussed. (400 ref.)—J. B. Thompson.

324. Shurley, Jay T. (U. Oklahoma) **Hallucinations in sensory deprivation and sleep deprivation.** In Louis West (Ed.), *Hallucinations* (see 37: 1588). Pp. 87-91.—Remarks introductory to paper discussion. (36 ref.)—J. B. Thompson.

325. Williams, Harold L., Morris, Gary O., & Lubin, Ardie. (Walter Reed Army Inst. Research, Washington, D. C.) **Illusions, hallucinations and sleep loss.** In Louis West (Ed.), *Hallucinations* (see 37: 1588). Pp. 158-165.—In 2 studies 36 Ss were deprived of sleep for 72 or 98 hours. Results indicate that visual misperception, temporal disorientation, and cognitive disorganization increased as sleep loss progressed. It is suggested that hallucinations depend on the ratio of specific afferent activity to subcortical activity and that when this ratio is low, the perceptual integrating system is controlled by the subcortical input.—J. B. Thompson.

MOTIVATION & EMOTION

326. Dass, S. L., & Rao, M. S. Prakash. (Defence Science Lab., Delhi, India) **A study on the psychological effects of experimental isolation and**

semi-starvation. *Def. sci. J., Delhi*, 1961, 11(2), 104-111.—A batch of Navy personnel was kept in isolation under conditions of semistarvation for a period of 5 days. It was observed that during this period there was no significant deterioration in the capacity of the Ss for mental effort. Feelings of tiredness and exhaustion which were reported by the Ss also appeared to be more an outcome of idleness and unwillingness to continue with the situation than the result of any serious physical weakness.—*Journal abstract*.

327. Jackson, Charles Wesley, Jr. (U. Michigan) An exploratory study of the role of suggestion in research on sensory deprivation. *Dissert. Abstr.*, 1961, 21(12), 3853.—*Abstract*.

PSYCHOMOTOR TASKS

328. Abelson, Robert Paul. (Princeton U.) Spectral analysis and the study of individual differences in the performance of routine, repetitive tasks. *Dissert. Abstr.*, 1961, 21(10), 3155-3156.—*Abstract*.

329. Adams, Jack A., & Chambers, Ridgely W. (U. Illinois) Response to simultaneous stimulation of two sense modalities. *J. exp. Psychol.*, 1962, 63(2), 198-206.—“A bisensory discrete tracking task was used where a probabilistic series of simultaneous auditory and visual stimuli were presented, each stimulus series for response with a separate hand. An auditory and a visual control group each practiced only a unisensory version of the task where response was with one hand. . . . The results revealed a net superiority of bisensory over unisensory responding when stimulus events were certain. This was because S in the bisensory task usually made the two response movements together, and anticipation of certain events resulted in an increase in speed of the visual response time to that of the faster audio response time. But, when events were uncertain, impairment was inferred for bisensory responding because the faster audio response time was reduced in speed and synchronized with the slower visual response time.”—*J. Arbit.*

330. Adams, Jack A., & Creamer, Lyle R. (U. Illinois) Anticipatory timing of continuous and discrete responses. *J. exp. Psychol.*, 1962, 63(1), 84-90.—Tested “the hypothesis that anticipation of directional signal change in one-dimensional continuous tracking, and time of even change in discrete tracking, is some function of mediated responses and their response-produced cues. A transfer of training design was used where practice on the criterion tracking task was preceded by a pretraining session where neutral responses were made to time regularities in the task stimuli. . . . Significant amounts of transfer of training were found and mediation as a mechanism for anticipation in tracking was found tenable. No differences were found for the motor vs. nonmotor locus of the mediators. Time-varying proprioceptive traces and cognitive learning were discussed as explanations.”—*J. Arbit.*

331. Boons, Jean-Paul, & Bertelson, Paul. L'influence de l'incertitude temporelle sur le temps de réaction de choix. [The influence of temporal uncertainty on choice time-reaction situations.] *Année psychol.*, 1961, 61, 361-376.—In simple reaction time, length and variability of the preceding period are

influential. In choice reaction-time situations, time uncertainty affects reaction time.—*G. Rubin-Robson*.

332. Brebner, John, & Gordon, Ian. (U. Exeter) Ensemble size and selective response times with a constant signal rate. *Quart. J. exp. Psychol.*, 1962, 14(2), 113-116.—Using a selective response task in which Ss were required to respond only to 1 of a number of alternative digits, although signal rate was held constant, the latency of selective responses was found to lengthen as the number of alternatives increased. This finding does not support the inference drawn from the work of Mowbray (1960) that, with signal rate held constant, there should be no significant lengthening of reaction times as the ensemble of digits increases.—*Journal abstract*.

333. Fehrer, Elizabeth, & Raab, David. (Brooklyn Coll.) Reaction time to stimuli masked by metacontrast. *J. exp. Psychol.*, 1962, 63(2), 143-147.—“This study was designed to determine whether metacontrast suppression of a light flash affects RT [reaction time] to the flash. Masking of a square target was achieved by subsequent flashing of two adjacent squares. Stimulus onset asynchronies were studied over a range from 0 to 75 msec. Phenomenal suppression of the first flash varied from none (0 asynchrony) to maximum (75 msec. asynchrony). With both foveal and peripheral vision, the results showed no effect of phenomenal brightness on RT. RT to the target, flashed alone, was never faster than RT to the target followed by masks. It was therefore the physical dimensions of the stimulus rather than its phenomenal characteristics that determined RT.”—*J. Arbit.*

334. Foley, P. J., & Humphries, M. (Defence Research Medical Lab., Toronto, Canada) Blocking in serial simple reaction tasks. *Canad. J. Psychol.*, 1962, 16(2), 128-137.—A series of visual or auditory stimuli were presented at different intervals and reaction times were recorded. Occasional blocks (latencies 3.29 times greater than the SD) occurred for all Ss. There was no evidence of a correlation between blocking and fatigue, nor was periodicity revealed. Too little is known about the conditions which generate blocks to warrant the formulation of a theory.—*R. S. Davidson*.

335. Jones, F. P., & Hanson, J. A. Note on the persistence of pattern in a gross body movement. *Percept. mot. Skills*, 1962, 14, 230.—Movement of the head when a S quickly moves from sitting to standing was recorded by multiple-image photographs. 15-months retest of one S reveals that “the basic character of the movement pattern has persisted.”—*W. H. Guertin*.

336. Lipman, Ronald S., & Spitz, Herman H. (Edward R. Johnstone Training & Research Center) The relationship between kinesthetic satiation and inhibition in rotary pursuit performance. *J. exp. Psychol.*, 1961, 62(5), 468-475.—Using college students and retarded adolescents, the proposed similarity between cortical satiation and inhibition was tested by having high and low kinesthetic satiators track on the pursuit rotor under varied conditions of work and rest. The “results were interpreted as indicating that the high satiator brings a somewhat stronger learned tendency to rest (s_{1R}) to the work task and that, in addition, the high satiator converts I_R to s_{1R} whereas the low satiator, even after prolonged periods of con-

tinuous work, does not convert I_R into S_{I_R} ."—*J. Arbit.*

337. Pinneo, Lawrence R. (McGill U.) **The effects of induced muscle tension during tracking on level of activation and on performance.** *J. exp. Psychol.*, 1961, 62(5), 523-531.—38 male college students were trained in an auditory tracking task. Physiological measures were obtained during training and while squeezing a hand dynamometer to a predetermined level of muscle tension during tracking. "Results clearly showed close agreement between amount of tension induced and the level of activity in all physiological measures. These results were considered in support of a theory that the proprioceptive return from the induced muscle tension produces generalized behavioral and physiological effects indirectly by increasing activity in the reticular activating system." (15 ref.)—*J. Arbit.*

338. Ryan, E. Dean. (U. California, Berkeley) **Effects of stress on motor performance and learning.** *Res. Quart. Amer. Ass. Hlth. Phys. Educ. Recr.*, 33(1), 111-119.—Male college students were tested on a motor learning task that involved balancing for 12 trials on the pivoted platform of a stabilometer. The task was made easy for 40 of the Ss by placing the platform 10 in. below the pivot and made difficult for 80 of the Ss by placing it 10 in. above the pivot. $\frac{1}{2}$ of the easy-task Ss were given electric shocks irregularly during the learning period to produce tension. Their performance or learning did not differ appreciably from the control Ss. Under the same conditions, except that the difficult task was used, the experimental Ss achieved the same amount of learning as the controls but showed poorer performance throughout the test. When the application of the tension-producing shock was delayed until the 3rd trial, it produced a lesser amount of performance impairment for that trial but full impairment for later trials. The results support the hypothesis (based on earlier studies) that increased tension impairs performance of a difficult motor task and that rate of learning is independent of the state of tension for either difficult or easy skills—except that predicted better performance under tension for the easy task did not occur.—*Journal abstract.*

339. Zhukov, E. K., & Zakhar'yants YU. Z. (Inst. Physical Culture, Leningrad, USSR) **K voprosu o fiziologicheskikh mekhanizmax vol'nykh deistviy.** [On the question of physiological mechanisms of volitional actions.] *Vop. Psikhol.*, 1961, No. 6, 127-135.—Ukhtomskii's mechanism of the dominant is applied to volitional activity. The concept of dominant involves the idea that excitation of the central nervous system can exert a structuring and organizing role on all nervous activity. It is predicted that (a) volitional activity may be reinforced by different stimuli, (b) goal directed behavior will be accompanied by a decrement in other tasks, and (c) volitional set can be disrupted by over extension of the factors causing it or by another concurrent set. Using a weight supporting task, these predictions are put to test. It is found that verbal encouragement will improve performance, the weight holding task causes a decrement in a simultaneous dynamometer task, and increasing the weight or giving the S a 2nd demanding task can disrupt the original task. The effect on EMG recordings of these various factors are also described.—*H. Pick.*

ATTENTION & SET

340. Baker, C. H. (Defense Research Medical Lab., Toronto, Canada) **On temporal extrapolation.** *Canad. J. Psychol.*, 1962, 16(1), 37-41.—In a vigilance task, series of visual stimuli which differed in mean inter-signal intervals and in interval variability were presented so that no signals escaped detection. After each series S was asked to produce 2 successive signals at the times he would expect them. Consistent with the expectancy theory of vigilance, Ss were able to extrapolate to the mean of the preceding series with some precision regardless of the variability of signal input.—*R. S. Davidson.*

341. Berlyne, D. E. (Boston U.) **Conflict and the orientation reaction.** *J. exp. Psychol.*, 1961, 62(5), 476-483.—3 experiments were carried out in order to study the effect of collative stimulus properties (novelty, surprisingness, complexity) on the amplitude of the orientation reaction and to test the hypothesis that conflict underlies the motivational effects of collative variables. The GSR was used as an index of the orientation reaction. In Experiment I, GSR amplitude increased with degree of conflict, unconfounded with novelty, surprisingness, intensity, and distance from fixation point, of stimuli. In Experiment II, GSR amplitude increased with response uncertainty. And in Experiment III, stimuli that were surprising without being novel (surprise being interpreted as a form of conflict) likewise produced increased GSRs. (17 ref.)—*J. Arbit.*

342. Foster, Harriet. (U. Michigan) **The operation of set in a visual search task.** *J. exp. Psychol.*, 1962, 63(1), 74-83.—Studied the effects of varying sets on the location and identification of words in a field of unrelated words. Sets were defined in terms of either functional or structural categories with varying degrees of specificity. The interpretation of the results was in terms of a "gating" mechanism where the gates for functional categories are the category members and the gates for structural categories are the defining attributes of the category. (23 ref.)—*J. Arbit.*

343. McGrath, James Joseph. (U. Southern California) **The effect of irrelevant environmental stimulation on vigilance performance.** *Dissert. Abstr.*, 1961, 22(1), 336-337.—*Abstract.*

344. Natadze, R. G. **Ustanovochnoe deistvie voobrazheniya.** [The effect of imagination on set.] Tbilisi, USSR: Gruzinskoi SSR Academy Sciences, 1958. 207 p.—The author presents the results of 7 studies on the effect of imagination on set. These studies were previously published during the period 1942-55. The language of the book is Georgian with a 4-page summary in Russian.—*I. D. London.*

345. Thrane, V. C. **Sensory and preparatory factors in response latency: V. Stimulus blanks as regulator of preparatory set.** *Scand. J. Psychol.*, 1962, 3(1), 1-15.—When otherwise nearly replicating the preceding experiment (see 36: 4BN11T), but excluding the final reaction signal in 14% of the trials under all conditions, response latency was much less affected, if at all, by differential warning of stimulus strength. It is concluded that a constant proportion of stimulus blanks serves largely to equalize perceptual uncertainty on the part of the respondent as to presence of a stimulus in spite of variations in the sensory adequacy of the expected stimulus, and hence

may be used when necessary as an antecedent variable for generating more comparable preparatory sets in studies concerned with the sensory effects of stimulus variables.—*Journal abstract.*

LEARNING

346. Broadbent, D. E., & Gregory, Margaret. (Medical Research Council, Cambridge, England) *Human response to classes of stimuli.* *Nature, Lond.*, 1962, 193, 1314-1315.—Observation of a S sorting a pack of cards is the basis for a study of the correlation between practice and stimuli and the effect on response. The conclusion is that practice is important.—*M. C. Benton.*

347. Burroughs, G. E. R., & Morris, J. N. (U. Birmingham) *Factors involved in learning a simple musical theme.* *Brit. J. educ. Psychol.*, 1962, 32(1), 18-28.—100 pupils, both sexes, age 13 plus, completed a battery of reference tests of musical ability. They also had repeated trials at singing a musical theme after hearing it on the piano. 4 pertinent factors were identified: (a) memory for melody, (b) recognition of musical shape, (c) verbal intelligence and interest, and (d) rhythmic accent. It was noted that errors persisted—suggesting that pupils remember what they thought they heard. Learning "curves did not follow the overall learning curve, although they behaved in a generally regular manner." (17 ref.)—*B. T. Jensen.*

348. Chatterjee, N. R. *Development of new tachistoscope-cum-memory apparatus.* *MANAS, Delhi*, 1960, 7, 41-43.—The apparatus (consisting of a body with rotating aluminum disc, electromagnetic control, and time controlling clock mechanism) has definite advantages over the traditional one.—*U. Pareek.*

349. Clark, R. Ernest. (State U. Iowa) *The role of drive (time stress) in complex learning: An emphasis on prelearning phenomena.* *J. exp. Psychol.*, 1962, 63(1), 57-61.—"The role of 'time stress' (drive) in complex learning and performance was investigated by relating empirical changes in prelearning competing response hierarchies to differences in the early learning performance of high and low time-stress groups. The relative strengths of competing responses were provided before learning by relative frequencies of occurrence of spatial responses to a single stimulus in a motor paired-associate task. The response consisted of dividing a slot with a stylus so that the divisions corresponded with those presented in a stimulus line. . . . It was found that the effects of time stress (drive) upon prelearning competing response hierarchies were largely compatible with Hullian drive theory. Predictions of early learning performance, based on these known prelearning effects, were supported by the learning data."—*J. Arbit.*

350. Conrad, R. (Medical Research Council, Cambridge, England) *Practice, familiarity and reading rate for words and nonsense syllables.* *Quart. J. exp. Psychol.*, 1962, 14(2), 71-76.—2 experiments were carried out to test a number of hypotheses regarding the effects of practice and SR familiarity on choice reaction times. In Experiment I, Ss read lists of nonsense syllables of varying levels of association value and differing degrees of choice. It was found that the slope of reading time per syllable was linear

with respect to the log of the number of choices, but that the slope was steeper for syllables of lower association value. In Experiment 2, 4- and 32-choice lists of the same average association value nonsense syllables were read on 3 successive days, as were lists of common 3-letter words. The words showed zero slope against number of choices, and the slope for the nonsense syllables decreased with practice. These results are considered to support recent modifications to views on the role of information theory in psychology.—*Journal abstract.*

351. Duffy, James Francis. (U. Pennsylvania) *The effects of induced anxiety on the incidental learning of high and low anxious subjects.* *Desert. Abstr.*, 1961, 21(12), 3848-3849.—*Abstract.*

352. Fuchs, Alfred H. (Ohio State U.) *The progression-regression hypotheses in perceptual-motor skill learning.* *J. exp. Psychol.*, 1962, 63(2), 177-182.—The progression hypothesis predicts that learning a perceptual-motor skill entails weighting more subtle aspects of the displayed error signal more heavily. The regression hypothesis predicts that under stress the weighting would "regress" to a heavier emphasis on more apparent stimulus characteristics, but that recovery from stress follows the progression hypothesis. A system, consisting of analog computers and servomechanisms, was utilized to match the performance of S. The gain settings were treated as approximations of the weights assigned by S. The results confirmed the hypotheses, and the technique proved to be efficient and rapid. It was concluded that the beginning of a theory of perceptual-motor skill learning may be found in these results.—*J. Arbit.*

353. Games, Paul A. (Ohio U.) *A factorial analysis of verbal learning tasks.* *J. exp. Psychol.*, 1962, 63(1), 1-11.—100 college students were given a test battery designed to investigate the loadings of a series of verbal learning tasks on the Rote Memory and Span Memory factors. The tasks showed substantial loadings on the former, and negligible loadings on the latter factors. Method of presentation and constancy of order had no consistent effects. Practice produced a shift of the Repeated Span tests from the Span factor toward the Rote Memory factor. The free recall mode of response had no effect on the factor loadings. Additional factors specific to the experimental tasks were identified.—*J. Arbit.*

354. Hartman, Frank K. (Dickinson Coll.) *Recognition learning under multiple channel presentation and testing conditions.* *Audioris. Commun. Rev.*, 1961, 9(1), 24-43.—"Three experiments are described wherein information is presented simultaneously by all possible combinations of the audio, pictorial, and print channels and subsequently tested on the same variations of combinations of three channels." In general, multiple presentation does not increase learning over single channel presentation unless the test situation also contains the additional cues. Simultaneous redundancy "by the audio and print channels is more effective in producing learning than is the same information in either channel alone." When interference between the pictorial and verbal information exists, the pictorial is least affected by the competition. (23 ref.)—*E. L. Borrowman.*

355. Jahnke, John C. (Miami U.) *Posttest motor learning performance as a function of degree*

of learning. *J. exp. Psychol.*, 1961, 62(6), 605-611.—2 experiments studied the effect of degree of learning on posttest performance on the pursuit rotor. Both prerest and posttest performance data could be fit by a single family of curves. Reminiscence was an inverse monotonic function of amount of prerest distributed practice. The implication of this finding for the concept of temporary work inhibition is discussed. Some performance loss over rest (forgetting) was observed. The overall results were found to be compatible with the hypothesis that warm-up is positively related to amount of prerest practice.—*J. Arbit.*

356. Jensen, Arthur R., & Blank, Stanley S. (U. California) Association with ordinal position in serial rote-learning. *Canad. J. Psychol.*, 1962, 16(1), 60-63.—Woodworth once proposed that the learning of a serial list consists of the formation of S-R bonds between each item and its ordinal position (or a symbolic equivalent thereof), and that the bowing of the serial position curve is caused by the greater ambiguity of the ordinal positions near the middle. Constantly informing S of the position of each item should thus facilitate learning and make the curve less sharply bowed. Ss learned a series of 9 colored geometric forms by the method of anticipation. For one group a numeral in the center of each form identified order, while for the controls there were consonants in random order. The difference in labelling did not facilitate learning nor significantly alter the shape of the curve.—*R. S. Davidson.*

357. Kjeldergaard, Paul Myron. (U. Minnesota) Verbal transfer processes in acquired stimulus equivalence and acquired response equivalence paradigms. *Dissert. Abstr.*, 1961, 21(10), 3173-3174.—*Abstract.*

358. Kurz, Ronald Burton. (Indian U.) A comparison of the effects of three kinds of stressors on human learning and performance. *Dissert. Abstr.*, 1961, 21(11), 3524.—*Abstract.*

359. Rice, G. E., Jr., & Lawless, R. H. (Agnes Scott Coll.) Behavior variability and reactive inhibition in human stylus maze behavior. *Psychol. Rec.*, 1961, 11, 333-338.—Variability was studied in a multisectonal stylus-maze as a function of distance (2, 6, 18 cm.) between previous turn and choice point. The results indicated alternation behavior at the shortest and longest distances with one forced turn. However, with 2 successive forced turns, significant alternation occurred only at the 2 cm. distance. It was suggested that in humans, other factors as well as reactive inhibition may be operating.—*R. J. Seidel.*

360. Ryan, Francis J., & Bilodeau, Edward A. (Tulane U.) Countertraining of a simple skill with immediate and 1-week delays of informative feedback. *J. exp. Psychol.*, 1962, 63(1), 19-22.—“Fifty-seven Ss were first taught in eight massed trials to displace a lever by a certain amount. Following the eighth response, the intertrial interval became 7 days, the amplitude of response required was changed in order to obtain countertraining, and the delay in KR was changed for half the Ss. For one group KR occurred immediately; for the other KR was withheld for 7 days. Both groups learned to modify their responses reasonably soon. The immediate-KR group outperformed the delay group ($P = .05$), but

the null hypothesis was not rejected because several other internal and external results contradicted the .05 outcome.”—*J. Arbit.*

361. Saltz, Eli. (Wayne State U.) Response pretraining: Differentiation or availability? *J. exp. Psychol.*, 1961, 62(6), 583-587.—Response pretraining was hypothesized as a predifferentiation device, in contrast to Underwood's hypothesis that it is a procedure for making responses more available during subsequent association learning. The present study investigated the effect of response pretraining upon the facilitation of learning when the responses are made available to the Ss during subsequent association learning. “The results indicated that pretraining was effective even when the responses were available to all Ss. One of the major effects of pretraining proved to be the reduction of mean oscillation per correct response.”—*J. Arbit.*

362. Sinha, A. K. P., & Prasad, M. B. (Patna U.) Transfer as a function of the method of first-task learning. *J. gen. Psychol.*, 1962, 66, 311-314.—The purpose of this study was to investigate the difference between the transfer effects in (a) learning both 1st and 2nd tasks by the whole method and (b) learning the 1st task by the part method and the 2nd by the whole method. The results showed that positive transfer took place in both (a) and (b), learning the initial task by the part method proved superior to learning it by the whole method, and the amount of transfer in (a) was greater than in (b).—*Author abstract.*

363. van Saun, H. Richard. (Princeton U.) The spread of effect, fact or artifact: Some theoretical and experimental considerations. *Dissert. Abstr.*, 1961, 21(10), 3175.—*Abstract.*

364. Zinchenko, P. I. (Khar'kov State U., USSR) Neproizvol'noe zapominanie. [Involuntary memorization.] Moscow, USSR: RSFSR Academy Pedagogical Sciences, 1961. 562 p.—This is the 1st Soviet book to appear on “involuntary memorization,” which is viewed as a “legitimate product of activity which pursues some (nonmnemonic) purpose” in contradistinction to voluntary memorization, which is viewed as a special mnemonic activity. Data drawn from the author's own research are included.—*I. D. London.*

Conditioning

365. Baxter, James C. (U. Texas) Mediated generalization as a function of semantic differential performance. *Amer. J. Psychol.*, 1962, 75(1), 66-76.—The prediction that the generalization of GSR amplitude would be inversely related to the multidimensional distance of the noncritical words from the critical words was not supported in 2 experiments ($N = 20$ in each). A 2nd prediction that “differences in the slopes of generalization would occur as a function of the evaluative meaning of critical word” was supported by the data obtained by 40 other Ss. The bearing of these results on Osgood's position is presented.—*R. H. Waters.*

366. Crowne, D. P., & Strickland, Bonnie R. (Ohio State U.) The conditioning of verbal behavior as a function of the need for social approval. *J. abnorm. soc. Psychol.*, 1961, 63(2), 395-401.—The hypothesis tested herein is that need for approval will facilitate learning. Need for approval

was measured by the M-C Social Desirability Scale (Crowne & Marlowe, 1960); the learning task employed the model of verbal conditioning as used by Greenspoon (1955); the Ss were undergraduate psychology students. The results supported the hypothesis.—G. Frank.

367. Das, J. P. (Utkal U.) **Some correlates of verbal conditioning.** *Psychol. Stud., Mysore*, 1961, 6(1), 30-35.—2 verbal conditioning tasks requiring renewals of learned responses were given to 50 college students separately. The students were also administered the Maudsley Personality Inventory and the Progressive Matrices. The results show that "Intelligence has a positive relationship with certain measures of verbal conditioning. But extraversion and neuroticism have no relationship. No significant relation could be obtained between the two types of verbal conditioning."—U. Pareek.

368. Dulany, D. E., Jr. (U. Illinois) **Hypotheses and habits in verbal operant conditioning.** *J. abnorm. soc. Psychol.*, 1961, 63(2), 261-263.—The traditional explanation of experiments related to conditioning of verbal behavior in terms of operant conditioning, i.e., learning without awareness, was questioned. It was hypothesized that such conditioning to cues given by E might be based on S's awareness of the cue and assumed meaning of such a stimulus. 2 experiments were performed, 1 where plural nouns were reinforced, and a 2nd to test the generalization of this acquired pattern on a word association test. The usual findings re: conditioning of plural nouns was replicated and there seemed to be a carry-over of the set to the word association test. However, some Ss seemed to be aware of the meaning of such a reinforcer as "um-hm." Moreover, response set was also seen to affect conditionability.—G. Frank.

369. Field, J. G., & Brengelmann, J. C. (Maudsley Hosp., U. London, England) **Eyelid conditioning and three personality parameters.** *J. abnorm. soc. Psychol.*, 1961, 63(3), 517-523.—The effect upon eyelid conditioning of Ss characterized by extraversion, neuroticism, and rigidity was studied using prison inmates. The results indicated that only measures of rigidity correlated positively and significantly with varying degrees of eyelid conditioning.—G. Frank.

370. Golin, S. (State U. Iowa) **Incubation effect: Role of awareness in an immediate versus delayed test of conditioned emotionality.** *J. abnorm. soc. Psychol.*, 1961, 63(3), 534-539.—"The purpose of the study was to test the view that conditioned emotionality, as measured by the GSR, increases after a delay and that this increase is greater when the subject is aware of the relation between the CS and UCS. Certain words were associated with shock. The subject was aware of the relation between one word and shock but was unaware of the relation between a second word and shock. The GSR to these words was compared to the GSR to a word not associated with shock." The results confirmed the hypothesis.—G. Frank.

371. Hetrick, W. Robert, & Haas, Kurt. (Bowling Green State U.) **Some personality correlates of verbal conditioning.** *J. Psychol.*, 1962, 53(2), 409-415.—It was held that certain personality variables known to have an effect upon the course of psychotherapy would similarly effect verbal conditioning because of some fundamental parallels be-

tween the therapy and conditioning processes. Therefore, it was hypothesized that scores on an ego-strength test would correlate positively with performance in a verbal conditioning task, while scores on measures of depression and psychopathy would be negatively correlated. Although all Ss were effectively conditioned, their performance was not demonstrated to be significantly related to any of the selected personality variables.—Author abstract.

372. Jones, Joan E. (U. Sydney) **The CS-UCS interval in conditioning short- and long-latency responses.** *J. exp. Psychol.*, 1961, 62(6), 612-617.—"An experiment was conducted in which a short- and long-latency response were conditioned at the same time in seven groups of 18 Ss, each group trained with a different CS-UCS interval, ranging from 20 to 1245 msec. The shapes of the learning curves obtained varied with the interval employed and the latency of the response being observed. The variations were consistent with predictions based on the two-principle theory of classical aversive conditioning. Differences between the functions relating performance to the CS-UCS interval for the two responses were also consistent with the theory."—J. Arbit.

373. King, Margaret S., Kimble, Gregory A., Gorman, John, & King, Richard A. (Duke U.) **Replication report: Two failures to reproduce effects of anxiety on eyelid conditioning.** *J. exp. Psychol.*, 1961, 62, 532-533.—Previous studies have shown that highly anxious Ss develop conditioned eyeblinks at a faster rate and to a higher asymptote than less anxious Ss. The 2 experiments reported are practically identical in methodology with these previous studies. They fail to show that highly anxious Ss condition better than less anxious Ss.—J. Arbit.

374. Korn, Sam J., & Welch, Livingston. (New York Hosp.) **Conditioned responses: Fact and artifact.** *J. Psychol.*, 1962, 53(2), 301-309.—The reliability of procedures, conventionally employed in CR studies, for the adaptation of GSR was questioned. In Experiment I a signal light was briefly presented, unreinforced, every 30-90 seconds for almost 25 minutes. GSR adaptation was not reliably maintained; responses persisted or recurred in an irregular manner. These data confirm the possibility that CR data are often compounded with artifacts of pseudo-conditioning. An alternative procedure—the continuous exposure of the Ss to one or another of a series of colored light signals—yielded rapid and reliable adaptation of GSR. The procedural and theoretical implications of these results are discussed.—Author abstract.

375. Le Ny, Jean-François. **Le conditionnement.** [Conditioning.] Paris, France: Presses Universitaires France, 1961. 172 p. NF 8.—In a detailed, basic description of classical conditioning, the author uses a physiological psychology frame of reference citing Russian, American, French, and British experiments and theories. Topics include the classic conditioned response, extinction, generalization, the roles of motivation and reinforcement, the expansion of the conditioning except to include 2 basic types of conditioning, and the application of conditioning to higher processes in man. (15-item bibliogr., & 89-term glossary)—R. O. Peterson.

376. Levy, L. H. (Indiana U.) The conditioning and generalization of changes in social perceptual dispositions. *J. abnorm. soc. Psychol.*, 1961, 63(3), 583-587.—This study examines hypotheses regarding the extent to which social perception may be effected by differential reinforcement and trait generalization. Ss are asked to judge photographs of faces as reflecting either one or the other of the following dimensions: safe-dangerous, good-bad, reliable-unreliable, and relaxed-tense. Selective response by E (saying "right" after the judgment "safe" was made, "wrong" after "dangerous") produced conditioning of the desired response and generalization to the other dimensions.—G. Frank.

377. Moore, John W., & Gormezano, I. (Indiana U.) Yoked comparisons of instrumental and classical eyelid conditioning. *J. exp. Psychol.*, 1961, 62(6), 552-559.—The acquisition and extinction of CRs in classical and instrumental avoidance eyelid conditioning were compared when the comparison was independent of the number and pattern of UCS occurrences. The effect of omitting vs. delayed onset of the UCS on some trials was also studied. The instrumental group showed a superior level of conditioning. The partial reinforcement procedure of UCS-omission resulted in greater resistance to extinction than UCS-delay. A classical conditioning group on 100% reinforcement was superior to all groups in acquisition but showed the least resistance to extinction. These and other findings are discussed in terms of several contemporary hypotheses of conditioning phenomena.—J. Arbit.

378. Prokasy, W. F., Hall, J. F., & Fawcett, J. T. (Pennsylvania State U.) Adaptation, sensitization, forward and backward conditioning, and pseudoconditioning of the GSR. *Psychol. Rep.*, 1962, 10(1), 103-106.—Six groups of Ss were given either forward conditioning, backward conditioning, pseudoconditioning, adaptation, or sensitization training followed by 10 extinction test trials. On the first test trial the conditioning group yielded performance that could be discriminated only from that of the adaptation group. By the end of the test trials, it was still not possible to differentiate the performances of the two sensitization groups and the forward conditioning group. These results suggest that care must be exercised in the interpretation of GSR data, particularly with respect to inferences concerned with the specific pairing of CS and UCS.—B. J. House.

379. Prokasy, William F., & Whaley, Francis L. (Pennsylvania State U.) The intertrial interval in classical conditioning. *J. exp. Psychol.*, 1961, 62(6), 560-564.—Twelve Ss were given extensive training in the classical eyeblink conditioning situation, where the main independent variable was the intertrial intervals of 5, 10, 15, 20, 25, and 30 sec. interspersed in an unpredictable order through the entire training series. Pooling the data of trials following each interval separately, it was found that response probability was not differentially affected by the immediate intertrial interval. Such results are incompatible with the hypothesis that response-produced inhibition accounts for the massed-space effects observed in earlier conditioning studies.—J. Arbit.

380. Prokasy, William F., Jr., & Whaley, Francis L. (Pennsylvania State U.) Manifest anxiety

scale score and the ready signal in classical conditioning. *J. exp. Psychol.*, 1962, 63(2), 119-123.—"With high and low Manifest Anxiety scores and presence or absence of a ready signal as the independent variables, 152 Ss served in a classical discrimination learning situation [eyeblink conditioning]. The principal findings were (a) that the ready signal depressed overall frequency of responding, and (b) that high-MA score Ss responded significantly more than did low-MA score Ss only under the signal condition."—J. Arbit.

381. Rosenberg, Anna Maria Larson. (Purdue U.) The generalization of verbal conditioning. *Dissert. Abstr.*, 1961, 22(1), 326.—Abstract.

382. Scott, Thomas John. (Pennsylvania State U.) The consistency of individual differences in conditionability in a verbal conditioning situation. *Dissert. Abstr.*, 1961, 22(1), 337-338.—Abstract.

383. Southwell, E. A. (U. Chicago) A note on "awareness" in verbal conditioning. *Psychol. Rep.*, 1962, 10(1), 40.—A criticism of a study by Krasner, Weiss, and Ullman on the basis of definition of "awareness" employed.—B. J. House.

384. Waters, Jerry E., & Kodman, Frank, Jr. (U. Kentucky) Abstract conditioning. *J. Psychol.*, 1962, 53(2), 441-452.—In order to investigate the phenomena of abstract conditioning, 20 suggestible and 20 nonsuggestible female Ss were exposed to a conditioning situation involving auditory and visual stimulus words and reinforcing events related to the meanings of the specific words. Although the results were inconclusive for suggestible Ss, abstract conditioning was demonstrated for nonsuggestible Ss by the occurrence of a greater GSR response to a critical stimulus word electric shock. However, the results failed to show a relationship between abstract conditioning and suggestibility as measured by the Release Test.—Author abstract.

385. Ymanskii, L. I. (Pedagogical Inst., Kursk, USSR) K voprosu o partial'nykh tipakh vysshei nervnoi deyatel'nosti cheloveka. [On the question of partial types of higher nervous activity in man.] *Vop. Psikh.*, 1961, No. 6, 154-160.—A review of previous work on partial types of nervous system—a la Pavlovian classification. The author distinguishes between 6 levels of partial types of nervous system. These involve mixtures of the more pure Pavlovian types. His distinctions are based on the presumed central mechanisms for the different types and their components, for example, "intersignal partialness, representing typological differences in the interaction of first and second signal system and occurring in man under domination of the first signal system." Data are presented for the only 3 Ss (out of 29 who were given a battery of conditioning tests) to show partialness of type of nervous system in relation to their conditionability.—H. Pick.

Discrimination

386. Bialer, Irv. (George Peabody Coll.) Primary and secondary stimulus generalization as related to intelligence level. *J. exp. Psychol.*, 1961, 62(4), 395-402.—"The present study was concerned with the relationship between verbal and cue-producing responses, intelligent behavior, and primary vs. secondary stimulus generalization. Under combined conditions of acquired distinctiveness and acquired

equivalence of cues, groups of intellectually normal, high grade retarded, and middle grade retarded (mongoloid) boys were compared as to the utilization of learned verbal responses in the transfer of a manipulative response. As predicted, there was a significant relationship between IQ level and transfer score, indicating that the relatively higher IQ groups responded significantly more on the basis of secondary stimulus generalization than did the relatively lower IQ groups.—*J. Arbit.*

387. Marx, Melvin H., Murphy, Wilton W., & Brownstein, Aaron J. (U. Missouri) Recognition of complex visual stimuli as a function of training with abstracted patterns. *J. exp. Psychol.*, 1961, 62(5), 456-460.—College students "were shown different presentations of complex visual stimuli and tested on their ability to identify distorted versions of the stimuli. A simple geometric technique, in which the fundamental stimulus pattern was represented by dots, circles, or squares, was found to be consistently superior as a means of training. Training which utilized only the main lines of the patterns was found to be more effective than the control (fully drawn) training stimuli for certain test items of a fragmentary sort. For test items in which the trained pattern was embedded in noise, control training was relatively more effective than line, although even here the geometric training stimuli were clearly superior."—*J. Arbit.*

388. Saltz, Eli, & Riach, Winifred J. (Wayne State U.) The effect of stress on stimulus differentiation. *J. exp. Psychol.*, 1961, 62(6), 588-593.—Ss learned to criterion either a discrimination between stimuli with overlapping stimulus elements, or one between nonoverlapping stimuli. Subsequent introduction of stress in the form of electric shock produced a decrement in performance. Most of this decrement was contributed by Ss who learned the discrimination to a relatively low criterion. These and other results are related to theories of differentiation and drive.—*J. Arbit.*

Verbal Learning

389. Adams, H. E., & Vidulich, R. N. (Louisiana State U.) Dogmatism and belief congruence in paired-associate learning. *Psychol. Rep.*, 1962, 10(1), 91-94.—Of 36 undergraduates, those with high scores on Rokeach's Dogmatism Scale were inferior on a paired-associate learning task to low scorers. Learning of a list of incongruent associates was more difficult for both groups than learning of congruent associates. Results were discussed in relation to theories of Spence and Rokeach.—*B. J. House.*

390. Asch, S. E., & Ebenholtz, S. M. (Swarthmore Coll.) The principle of associative symmetry. *Proc. Amer. Phil. Soc.*, 1962, 106, 135-163.—Association is not in itself directional, and backward association would seem to be as strong as forward. Recall of simultaneous presentation (form of figure and form of constituent member, large figure and included figure, part and whole) shows no asymmetry. Learning by the method of anticipation makes the 2nd member of a pair more available because it is more impressed. Familiarization of the S with all items to be associated later tends to render the items equally available and to reduce or abolish direc-

tional asymmetry. A sentence or a melody is not reversible because the meaning controls the directionality. The literature on backward association is reviewed and criticized.—*E. G. Boring.*

391. Ausubel, David P. (U. Illinois) A subsumption theory of meaningful verbal learning and retention. *J. gen. Psychol.*, 1962, 66, 213-224.—Meaningful learning and retention are primarily influenced by characteristic organizational trends in cognitive structure. Rote learning tasks, however, are largely isolated from cognitive structure and are thus primarily influenced by the interfering effects of concurrent, similar rote materials. According to this theory, the principal variables influencing the incorporability and longevity of meaningful material are (a) the availability in cognitive structure of relevant subsuming concepts at an appropriate level of inclusiveness, (b) the stability and clarity of these concepts, and (c) their discriminability from the learning task.—*Author abstract.*

392. Babladelis, Georgia. (U. Colorado) A study of the effects of a personality variable in verbal conditioning. *Dissert. Abstr.*, 1961, 21(10), 3160-3161.—*Abstract.*

393. Battig, William F., & Nelson, Douglas. (U. Virginia) Effect of kind of material and previous experience on paired-associate learning under repetition and non-repetition conditions. *Canad. J. Psychol.*, 1962, 16(2), 106-111.—Ss learned paired associate lists, using either the typical repetition (R) method or a nonrepetition (NR) one in which all incorrect pairs were replaced after each trial. The R condition was superior for 3 types of lists: adjectives, nonsense syllables, and shape-number pairs. Yet for the word-bigrams there was no significant difference between conditions, possibly attributable to their difficulty. R and NR pretraining had no differential effect on R and NR test-list performance. The results are consistent with the traditional conception of paired associate learning as an incremental process.—*R. S. Davidson.*

394. Buss, Arnold H. (U. Pittsburgh) Stimulus generalization with aggressive verbal stimuli: A new paradigm. *J. Psychol.*, 1962, 53(2), 417-424.—A new stimulus generalization paradigm was tested. 5 words of differing intensities of aggression were presented on each trial, and Ss learned to say either the most or least intense word. Different words were used on each trial. Generalization was tested by omitting the reinforced class of words. There were regular gradients of stimulus generalization, suggesting the utility of the new paradigm. The matching principle (tending to match response intensity to stimulus intensity) received equivocal support. Generalizing from intense to mild stimuli yielded steeper gradients than generalizing from mild to intense stimuli.—*Author abstract.*

395. Epstein, William. (U. Kansas) A further study of the influence of syntactical structure on learning. *Amer. J. Psychol.*, 1962, 75(1), 121-126.—2 types of material, nonsense syllables and meaningful words, were arranged either to simulate English syntax or in a random order. In a 2nd experiment both types of material were presented as serial items. Data from 48 Ss in the 1st experiment showed that the syntactical structure facilitated learning and supported the results from an earlier study

(see 36: 1CI85E). In the 2nd experiment, $N = 48$, confirmatory data were obtained since the "sentences" were no more readily learned in serial order than the same words in random order.—*R. H. Waters.*

396. Everstine, Louis. (U. Pittsburgh) **The conditioning of neurotic verbalizations.** *Dissert. Abstr.*, 1961, 21(12), 3849-3850.—*Abstract.*

397. Kazusa, Kimiko. (Kyoto U., Japan) [The mechanism of generalization and differentiation in paired-associate learning.] *Jap. J. Psychol.*, 1961, 32(5), 279-288.—Stimulus pairs of similar and dissimilar adjectives were coupled with common and different response items, resulting in 4 experimental conditions. Following original learning to a criterion of 5 errorless trials, each condition was learned under 2 types of transfer learning: the stimulus items were paired with letters of the alphabet as either a common or a different response. The results supported an hypothesis of a mediate process rather than "the traditional view of generalization and differentiation." Identical results were obtained when the study was replicated using nonsense syllables. (English summary.)—*J. Lyons.*

398. Lifton, Harvey, & Goss, Albert E. (U. Massachusetts) **Aural-visual transfer of paired-associates learning.** *J. gen. Psychol.*, 1962, 66, 225-234.—Lists of 8 pairs of dissyllables with stimulus members of high or low meaningfulness were used to demonstrate transfer of paired-associates learning from one sensory modality to another. Of the 40 undergraduate Ss, 20 had initial learning with aural presentation and relearning with visual presentation, both to a criterion of 1 perfect trial. The initial learning and relearning of the other 20 was in a visual-aural sequence. Within each sequence, 10 of the 20 Ss learned the list with stimulus members of high meaningfulness and the other 10 learned the list with stimulus members of low meaningfulness. Both initial learning and relearning were more rapid with aural than with visual presentation and with stimulus members of high than of low meaningfulness. Positive transfer in the form of correct responses on the first or recall trial and in terms of relearning was obtained for both aural-visual and visual-aural sequences. However, percentage savings in relearning, which expressed amount of transfer relative to initial learning, was not influenced by sequence or meaningfulness.—*Author abstract.*

399. McGehee, Nan E., & Schulz, Rudolph W. (Northwestern U.) **Mediation in paired-associate learning.** *J. exp. Psychol.*, 1961, 62(6), 565-570.—2 experiments were conducted to determine how language habits inferred from free-association norms might mediate the learning of paired associates. It was found that the response-recall phase of test-list acquisition is not facilitated in a mediated condition. Under the mediated condition, the associative phase of test-list acquisition is facilitated via the specific associative chains linking the stimulus and response units of the respective pairs and that free-association norms are critical in defining these associative chains.—*J. Arbit.*

400. McGuire, William J. (Yale U.) **A multi-process model for paired-associate learning.** *J. exp. Psychol.*, 1961, 62(4), 335-347.—A quantitative model which relates the strength of 3 habit connections postulated to occur in paired-associate learning

to various aspects of performance on this task was described and deductions from this model experimentally tested with college students. The results in terms of learning scores and intrusion errors during practice support the predictions from the theory. Stimulus generalization in paired-associate learning was also discussed. (29 ref.)—*J. Arbit.*

401. Martin, James Gordon. (U. Minnesota) **Mediated transfer in two verbal learning paradigms.** *Dissert. Abstr.*, 1961, 21(10), 3174.—*Abstract.*

402. Newman, Slater E., & Saltz, Eli. (North Carolina State Coll.) **Serial position as a cue in learning.** *Amer. J. Psychol.*, 1962, 75(1), 102-108.—Each ($N = 20$) of 3 groups was given 5 presentations of a 10-pair list, followed by immediate recall. 2 groups, SS and SD, received the pairs in the same order during the 5 learning trials. In the retention test, Group SS received the stimulus items in the same order but Group SD received them in a different order. A 3rd group (R) received the pairs and the stimulus items in a different random order on each trial. It was predicted that if serial position served as a cue for learning and retention, SS would be superior to SD and R. As it turned out, SS and SD were superior to R and not significantly different from each other. Serial position does not seem to be an independently acting cue in paired associate learning, although it may be one element in a compound stimulus matrix.—*R. H. Waters.*

403. Roberts, William A. (U. Maryland) **A further test of the effect of isolation in serial learning.** *Amer. J. Psychol.*, 1962, 75(1), 134-139.—The effect of increasing the number of isolated items within a 175-item list to 3 instead of the typical single isolated item and the effect of a difference in meaningfulness between the "isolates" and the remainder of the items were studied in terms of the ease of learning the isolated items as responses, their role as stimuli, errors in learning the entire list, and the frequency of intrusion-errors from the isolated terms. The results obtained do not lend themselves to an interpretation in terms of intraserial generalization and suggest an "interaction of degree of isolation and meaningfulness."—*R. H. Waters.*

404. Saltz, E., & Ager, J. W. (Wayne State U.) **Issues in scaling meaningfulness: Noble's revised CVC norms.** *Psychol. Rep.*, 1962, 10(1), 25-26.—"Reservations regarding Noble's m' scale in terms of its relation to performance are discussed. Relations between Glaze values, Noble a' values, and Underwood and Schulz's PR values with learning are reported to vary."—*B. J. House.*

405. Sugimura, Takeshi. (Osaka Classification Office for Juvenile Delinquents, Japan) [Associative transfer in verbal paired-associate learning of the A-B, A-Br paradigm as a function of the amount of prior learning.] *Jap. J. Psychol.*, 1961, 32(5), 289-295.—2 experiments were carried out to test the effect of degree of prior learning on associative transfer. In each study Ss learned a list of pairs of 2-syllable nouns, followed by a 2nd list of the items paired in new combinations. The results were interpreted as evidence for the author's "two-factor theory of learning," on the basis of findings that "specific S-R combinations in the first list have negative effects on the learning of the second list, while

general learning sets facilitate it." (English summary)—*J. Lyons.*

406. Umemoto, Takao. (Kyoto U., Japan) Paired-associate learning as a function of similarity: Semantic similarity between stimulus- and response-items. *Amer. J. Psychol.*, 1962, 75, 85-93.—In 2 experiments, one done in Japan and the other in the United States, intrastimulus and intrasubject similarities were held constant, while the similarity between stimulus- and response-items of the pairs varied from high to medium to low. "In both experiments the lists with the most similar S-R items were the easiest to learn." The relative positions of the other 2 lists were reversed. The results were interpreted in terms of the Postman-Riley hypothesis of initial response-bias (see 32: 243).—*R. H. Waters.*

407 Underwood, Benton J., & Schultz, Rudolph W. (Northwestern U.) Studies of distributed practice: XXI. Effect of interference from language habits. *J. exp. Psychol.*, 1961, 62(6), 571-575.—3 studies evaluated the influence on learning of the interaction between intertrial interval and interference. Bigrams, trigrams and words were used in a paired associate learning task with college students. Distributed practice facilitates acquisition only when interference was obtained in response learning, and not when interference occurred in stimulus-response learning.—*J. Arbit.*

408. Waugh, Nancy C., Smith, J. E. Keith. (Harvard U.) A stochastic model for free recall. *Psychometrika*, 1962, 27(2), 141-154.—A statistical model for verbal learning is presented and tested against experimental data. The model describes a Markov process with realizable absorbing state, allowing complete learning on some finite trial as well as imperfect retention prior to this trial.—*Journal abstract.*

409. Williams, Joanna P. (Yale U.) Supplementary report: A selection artifact in Rock's study of the role of repetition. *J. exp. Psychol.*, 1961, 62(6), 627-628.—Rock has reported that Ss who had the original items of a list of paired associates presented repeatedly on every trial learned no faster than Ss for whom item repetition was omitted by substituting new pairs for those answered incorrectly. The present study questions the possibility that the items in the list were not equal in difficulty and that Ss in the nonrepetition group eliminated the difficult items. The results support the possibility of the presence of such a selection bias.—*J. Arbit.*

Reinforcement (Including Probability Learning)

410. Aronson, E. (Harvard U.) The effect of effort on the attractiveness of rewarded and unrewarded stimuli. *J. abnorm. soc. Psychol.*, 1961, 63(2), 375-380.—Dissonance theory suggests that stimuli gain in attractiveness in relation to the amount of energy expended to achieve them regardless of whether they are associated with reinforcement or not; whereas reinforcement theory suggests that only stimuli associated with reward gain in attractiveness. By systematically manipulating the degree of reward and expenditure of effort, it was hypothesized that a test of the validity of one or the other of the hypotheses could be made. Ss were asked to perform tasks which varied in difficulty and

reward. They were also asked to rate the relative attractiveness of the stimuli before and after being exposed to the experimental conditions. The results demonstrated an interaction between the effects of cognitive dissonance and secondary reinforcement.—*G. Frank.*

411. Berry, R. N. (Indiana U.) Effect of two reinforcement ratios on human skin conductance levels. *Psychol. Rep.*, 1962, 10(1), 15-18.—"A task presented as having a solution but actually having none, was presented for 30 trials, over a 10-min. interval, to each of 76 male Ss. Half the Ss were given 15 of 30 possible verbal reinforcements, the other half were given only 5 such reinforcements." Results of skin conductance measures showed "a significantly larger number of high reinforcement, as opposed to low reinforcement, Ss with a conductance value moving in the direction of 1.40 μ mhos during the task interval," a value previously shown to be optimum for verbal recall.—*B. J. House.*

412. Brackbill, Yvonne; Kappy, Michael S., & Starr, Raymond H. (Johns Hopkins U.) Magnitude of reward and probability learning. *J. exp. Psychol.*, 1962, 63(1), 32-35.—"This study investigated probability learning in a binary choice, non-contingent procedure with 0, 1, 3, and 5 units of reward for each correct prediction, 100 units being exchangeable for one toy. The Ss were second-grade children. Maximum gain responding increased with larger values of reward, although the function relating these two variables did not appear to be linear. From a first order sequence analysis, an independent effect emerged through an unexpected source of reinforcement: the utility to S of correctly predicting the occurrence of the less frequent event."—*J. Arbit.*

413. Carment, D. W., & Miles C. G. (McMaster U., Canada) Resistance to extinction and rate of lever-pulling as a function of percentage of reinforcement and number of acquisition trials. *Canad. J. Psychol.*, 1962, 16(2), 145-151.—Human Ss were instructed to repeatedly pull a lever to obtain poker chips, and received either 12½%, 25%, or 50% reinforcement. The number of responses after either 8, 16, or 64 acquisition trials was taken as a measure of resistance to extinction. The higher the percentage of reinforcement and the larger the number of acquisition trials, the fewer the number of responses to extinction. "The relations may not hold if the response employed, in contrast to lever-pulling, requires the Ss to learn."—*R. S. Davidson.*

414. Chapman, Jean P. (Northwestern U.) The spacing of sequentially dependent trials in probability learning. *J. exp. Psychol.*, 1961, 62(6), 545-551.—"This experiment on probability learning was designed to test several predictions from the Burke and Estes model and from an extension of this model by Witte. A total of 120 Ss were tested on a Humphrey's-type light guessing apparatus. The series of reinforcing events were sequentially dependent. The results showed that neither model adequately predicted performance on massed trials when the conditional stimulus was high, although both models did somewhat better at predicting performance when the conditional probability was low. . . . There is some evidence that the model predicts qualitative but not quantitative changes from distributed

trials. The marginal response behavior revealed that response probability was consistently below the stimulus marginal probability."—*J. Arbit.*

415. Diggory, James C., & Ostroff, Bena. (U. Pennsylvania) Estimated probability of success as a function of variability in performance. *Amer. J. Psychol.*, 1962, 75(1), 94-101.—The results support earlier findings that S's estimate of success in a task declines as he nears the goal. They also show that this rate of decline is less if the approach to the goal is irregular and that estimations of success are based on nearness to the goal or to the temporal deadline and on the shape of the performance-curve.—*R. H. Waters.*

416. Edwards, Ward. (U. Michigan) Probability learning in 1000 trials. *J. exp. Psychol.*, 1961, 62(4), 385-394.—120 basic airmen trainees made a sequence of 1000 predictions about which of 2 mutually exclusive events would occur. After each prediction one of the events occurred; the probability of occurrence of each event was constant. Probability matching did not occur. Ss showed probability following in that their predictions changed on the basis of the relative frequency of the event in a block of trials. The effect of the immediately preceding trials was found to be most important. In early trials the longer the run of an event, the less likely was S to predict it (the gambler's fallacy), while in later trials the longer the run the more likely was S to predict its occurrence. (26 ref.)—*J. Arbit.*

417. Erlebacher, Albert, & Archer, E. James. (U. Wisconsin) Perseveration as a function of degree of learning and percentage of reinforcement in card sorting. *J. exp. Psychol.*, 1961, 62(5), 510-517.—"An experiment relating perseveration to percentage of reinforcement and degree of learning was performed using a modified form of the Wisconsin Card Sorting Test. The results showed that there was a significant interaction between these two variables. . . . These results were discussed in terms of the similarity of the pattern of reinforcement during the acquisition stage and the nonreinforcement of the same response during the extinction stage. Supposedly, similarity leads to generalization and thus, slower extinction (greater perseveration)."—*J. Arbit.*

418. Fort, Jane G., Myers, Jerome L., & Myers, Nancy A. (U. Massachusetts) Secondary reinforcement in a discrimination problem. *J. gen. Psychol.*, 1962, 66, 159-168.—A buzz was paired with money for correct responses in a discrimination problem. During extinction, the buzz maintained a high level of correct responding. A 2nd experiment replicated the 1st with the addition of 1 parameter—number of acquisition trials. The results of the 2nd experiment suggested again the presence of strong secondary reinforcement effects, although the habit strength parameter was not significant.—*Author abstract.*

419. Griswold, Betty J., & Luce, R. Duncan. (Columbia U.) Choices among uncertain outcomes: A test of a decomposition and two assumptions of transitivity. *Amer. J. Psychol.*, 1962, 75(1), 35-44.—"A gambling experiment employing both money and cigarettes as the outcome was run to test three assumptions" proposed by Luce in the literature of economics. "Ignoring those pairs of

gambles involving at least one pair of inconsistently preferred brands, we found strong support for the transitivity-assumption and more modest support for the strong stochastic transitivity- and decomposition-assumptions."—*R. H. Waters.*

420. Jones, Austin. (U. Pittsburgh) The relative effectiveness of positive and negative verbal reinforcers. *J. exp. Psychol.*, 1961, 62(4), 368-371.—A test of the hypothesis that the word "wrong" is a stronger reinforcer than the word "right." Psychiatric inpatients and college students were used. In the college group "wrong" appeared to be a stronger reinforcer than "right." The reverse was true for the psychiatric patients.—*J. Arbit.*

421. Kapostins, Eli Eglons. (Columbia U.) The effects of differential reinforcement of low rate on word utterance. *Dissert. Abstr.*, 1961, 22(1), 334-335.—*Abstract.*

422. Kozielski, J. Badanie strategii myślenia w trudnych sytuacjach probabilistycznych. [Investigation of the strategy of thinking in difficult probabilistic situations.] *Psychol. wych.*, 1961, 4(4), 384-395.—6 cards containing 4 different letters from among the 1st 6 letters of the alphabet were presented serially to 30 Ss. After each card was shown, the experimenter stated whether the card was positive (contained code) or negative. 2 of the statements were false. The S was asked to discover the code and whether he was told the truth. The results showed that S trusted positive and confirming information rather than negative and nonconfirming information.—*H. Kaczkowski.*

423. LaBerge, David, Greeno, James G., & Peterson, O. F. (U. Minnesota) Nonreinforcement and neutralization of stimuli. *J. exp. Psychol.*, 1962, 63(2), 207-213.—6 groups of 48 college students tested the hypothesis that nonreinforcement connects at least part of the sampled elements to responses other than the choice alternatives in a 2-choice learning situation. Evidence supporting the hypothesis was obtained. The results are discussed in terms of a mathematical model of learning as well as the neutralization and identity hypotheses.—*J. Arbit.*

424. Lanzetta, John T., & Kanareff, Vera T. (U. Delaware) The effects of congruent and conflicting social and task feedback on the acquisition of an imitative response. *J. exp. Psychol.*, 1961, 62(4), 322-328.—In college students, social reinforcement (emotional response of a partner) was compared with task reinforcement (indication of correctness) when both were congruent or in conflict. The frequency of using an imitative response in a 2-choice prediction was measured. The social reinforcer was less effective in modifying behavior than an objective indication of response adequacy, even when the emotional response of the partner was made instrumental to more remote goals.—*J. Arbit.*

425. Lewis, Donald J., & Duncan, Carl P. (Rutgers U.) Expectation and resistance to extinction under partial reinforcement and risk-taking. *Amer. J. Psychol.*, 1962, 75(1), 77-84.—2 groups of 150 Ss each were given disks worth 1¢ and 5¢, respectively, with which to play a slot machine. S lost or won a disk on each play. 5 percentages of reinforcement (payoff) were used on the 1st 9 trials: 0%, 11%, 33%, 67%, and 100%.

After the 9th trial the machine did not pay off again (extinction) and the Ss could stop whenever they wished. Resistance to extinction decreased with increases in reinforcement, and Ss' expectancies during acquisition and extinction changed differentially with the percentage of reinforcement.—R. H. Waters.

426. Lindman, Harold, & Edwards, Ward. (U. Michigan) **Supplementary report: Unlearning the gambler's fallacy.** *J. exp. Psychol.*, 1961, 62(6), 630.—Edwards has reported that as the length of a homogeneous outcome run increases, the probability that it will be predicted by S increases. Other studies have reported the opposite finding: as the length of a homogeneous outcome run increases, the probability that S will predict that event decreases (this is the gambler's fallacy). The present study replicates the earlier findings by Edwards, i.e., the small tendency toward a gambler's fallacy in the early trials is replaced by the opposite tendency beginning by Trial 100. It was concluded that the gambler's fallacy is a very evanescent phenomenon.—J. Arbit.

427. Neimark, E. D. (New York U.) **Effect of incentives upon the role of "social" cues and reinforcers in probability learning.** *Psychol. Rep.*, 1962, 10(1), 215-221.—"A total of 112 Ss were run three at a time on a modified probability learning task in which they were to predict the occurrence of E_1 or E_2 upon presentation of a cue s_1 or s_2 . Treatment of groups differed with respect to attributed source of s_1 and E_1 (social vs. nonsocial) and presence or absence of incentive (a \$10 prize for greatest accuracy of prediction)." Results suggested that "social cues make for lower levels of prediction than nonsocial cues but that the effect may be contingent upon Ss' motivation."—B. J. House.

428. Rosenbaum, Milton E., & Tucker, Irving F. (State U. Iowa) **The competence of the model and the learning of imitation and non-imitation.** *J. exp. Psychol.*, 1962, 63(2), 183-190.—College students predicted the outcomes of a series of fictitious horse races after exposure on each trial to the prediction and correctness of the prediction made by a simulated partner. Under training to imitate, the results indicate that the greater the model's competence, the greater is the facilitation of the learning process. Under training to nonimitate, learning was facilitated when the model's competence was high or low but was poorer when the model's adequacy was mediocre. The results were discussed as reflecting the effect of prior social learning experiences on current social behavior.—J. Arbit.

429. Simpson, William, & Voss, James F. (Coll. of Wooster) **Psychophysical judgments of probabilistic stimulus sequences.** *J. exp. Psychol.*, 1961, 62(4), 416-422.—1 of 2 lights was presented in a sequence of 50 stimulus presentations. Stimulus probability was manipulated by varying the relative number of each of the 2 lights in the sequence. Judgments made at the end of each series of 50 lights regarding the estimated occurrence of 1 light provided a response measure of estimated probability. 9 probability conditions were employed. Ss tended to overestimate probabilities from .60 to .90 and underestimate probabilities from .10 to .40. These and other results are discussed in relation to probability learning and decision making.—J. Arbit.

430. Weiner, Harold. (St. Elizabeth's Hosp., Washington, D. C.) **Some effects of response cost upon human operant behavior.** *J. exp. Anal. Behav.*, 1962, 5(2), 201-208.—Using adult males, the effects of cost (point loss per response) were investigated upon observing responses maintained by VI and FI schedules of reinforcement (acquisition of points via critical-signal detections). All 3 experiments emphasized the importance of cost as a factor in maintenance of human behavior on schedules of positive reinforcement.—J. Arbit.

431. Zipf, Sheila G. (U. California, Berkeley) **The effects of amount of reward, requirement, and several related probabilities on human performance.** *J. exp. Psychol.*, 1961, 62(5), 503-509.—The effect of amount of reward, probability of reward for successful performance, probability of success, and amount of increase in speed required was investigated in an IBM-card sorting task. Probability of success and required increase in speed had significant effects on performance. No conclusion was possible for probability of reward. Amount of reward was not effective although the desire to obtain a reward was related to performance. No evidence for a multiplicative relationship between these variables was found. (18 ref.)—J. Arbit.

Learning Theory

432. Capaldi, E. J. (U. Texas) **On partial and delayed reinforcement.** *Psychol. Rep.*, 1962, 10(1), 10.—A discussion of criticisms by Wike of a study by Cogan and Capaldi.—B. J. House.

433. Carterette, Teresa S. (Indiana U.) **An application of stimulus sampling theory to summated generalization.** *J. exp. Psychol.*, 1961, 62(5), 448-455.—2 experiments tested predictions from a mathematical model derived from the Burke-Estes stimulus sampling theory. The 1st, an experiment concerned with simple stimulus generalization, yielded estimates of parameters which were used to generate theoretical curves for the 2nd, concerned with summated stimulus generalization. Ss were college students. In general, the predictions were confirmed.—J. Arbit.

434. Fey, Curt F. (U. Pennsylvania) **Parameter invariance in models for learning.** *Dissert. Abstr.*, 1961, 22(1), 331.—Abstract.

435. Linhart, J., & Michalička, M. (Pedagogický ústav ČSAV, Prague) **K metodologickým otázkám studia motivace v procesech učení a poznání.** [Concerning the methodology of the study of motivation in the learning and cognitive processes.] *Ceskoslov. Psychol.*, 1961, 5, 209-222.—A brief description, analysis, and critical review of some contemporary theories of western psychologists and neuropsychologists regarding the problems of determination and motivation in learning and cognitive processes. Much new experimental material does not include a causal explanation of the motivation of human learning and behavior. (61 ref., Russian & English summaries)—V. Bricháček.

436. Stevens, Joseph C., & Savin, Harris B. (Harvard U.) **On the form of learning curves.** *J. exp. Anal. Behav.*, 1962, 5(1), 15-18.—"In a wide variety of learning experiments, cumulated measures of performance turn out to be a power function of practice time or number trials, typically with an ex-

ponent between 1 and 2. The effects of various conditions on the course of learning can frequently be described in terms of the two constants of the function."—*Author abstract.*

437. Suppes, P., & Schlag-Rey, M. (Stanford U.) **Test of some learning models for double contingent reinforcement.** *Psychol. Rep.*, 1962, 10(1), 259-268.—Predictions from 10 generalized conditioning one-element models were compared for data from 20 students on a 2-response learning task with probability of reinforcement contingent upon the 2 immediately preceding responses. "The conditioning parameters of five (Class I) were defined in terms of concrete positional variables like an E_1 or an A_1E_2 response-reinforcement pair. The parameters of the other five (Class II) were defined in terms of relational variables like a punishing or rewarding reinforcement, or a repeating or alternating response. . . . The fit to the data of the relational models (Class II) was in every case better than that of the corresponding positional model (Class I)."—*B. J. House.*

RETENTION & FORGETTING

438. Baron, Naomi. (Beltsville, Md.) **Memory and emotion.** *Amer. Psychologist*, 1962, 17, 146-148.—The purpose of this study by a 9th grade student "was to see if there were a relationship between memory and emotions." 121 Ss (junior high school students) viewed 30 words successively, each being exposed for a period of $2\frac{1}{2}$ sec., and then were instructed to recall them in writing. A week later dittoed lists of the same words were rated on a 5-point scale of unpleasantness-pleasantness by the Ss. "The difference in the kind of feeling, i.e., pleasant or unpleasant, seems to have no effect on memory. . . . Intensity of emotion does appear to affect memory."—*S. J. Lachman.*

439. Colbert, John. (New York U.) **The effects of musical stimulation on recall in high and low anxiety college students: A comparison of some effects of musical stimulation on the recall of letter configurations and nonsense syllables in high and low anxiety college students.** *Dissert. Abstr.*, 1961, 21(10), 3172.—*Abstract.*

440. Conrad, R. (Medical Research Council, Cambridge, England) **An association between memory errors and errors due to acoustic masking of speech.** *Nature, Lond.*, 1962, 193, 1314-1315.—A method is reported of studying change in the memory trace by observing whether recall errors show any systematic tendency. Sequences containing 6 letters of the alphabet formed the material to be recalled by 300 Ss. 2 sensory modes were involved: visual and auditory. Results showed systematic errors in immediate memory for certain letters of the alphabet. Significance of the experiment lies in the fact that neurological noise in the memory system seems to affect the memory trace of a stimulus in much the same way as acoustic noise affects its auditory perception.—*M. C. Benton.*

441. Goss, Albert, E., & Nelson, Jane Van Dyke. (U. of Massachusetts) **Retention of paired associates as a function of percentage of occurrence of response members.** *J. gen. Psychol.*, 1962, 66, 203-211.—Retention of anticipatory responses of a list of 8 nonsense-syllable

paired associates was measured 15 min., 24 hr., and 48 hr. after acquisition of those response to a $\frac{1}{2}$ criterion under 25% and 100% schedules of occurrence of response members. The nonsense syllables were of low similarity to each other and of intermediate Glaze association values. 10 undergraduate men and women were randomly assigned to each of 6 combinations of the 2 acquisition schedules and 3 retention intervals. There were more correct responses on the 1st relearning or recall trial and fewer trials and correct responses to the $\frac{1}{2}$ relearning criterion after 15 min. than after 24 hr. or 48 hr., but amount retained was apparently unrelated to the percentage of occurrence of response members under which the anticipatory responses were acquired.—*Author abstract.*

442. Hanawalt, Nelson G., & Tarr, Arlene G. (Rutgers U.) **The effect of recall upon recognition.** *J. exp. Psychol.*, 1961, 62(4), 361-367.—The effect of interpolated recall upon recognition was measured at different time intervals. Interpolated recall produced equivocal evidence for a facilitating effect upon recognition when recognition followed immediately after recall. When recognition was delayed 48 or 52 hr., the facilitating effect was unequivocal. The disagreement of the present results with some recent studies showing a depressing effect of recall upon recognition was discussed in the light of possible factors accounting for the differences.—*J. Arbib.*

443. Koppelaar, R. J., & Ohara, G. N. (U. Manitoba, Canada) **The combined effect of retroaction and proaction.** *Canad. J. Psychol.*, 1962, 16(2), 96-105.—To test for an interaction between proactive and retroactive inhibitory effects, lists of 2-syllable adjectives were learned by the method of paired associates. Under the combined condition (RIP) the prior, critical and interpolated learning, the brief retention interval, and the recall and relearning were all given in one continuous session. Control conditions had either prior learning (PI), interpolated learning (RI), or rests. Retroactive inhibition was greater than proactive. Intrusions from prior lists increased markedly from the PI to the RIP conditions, but there was no such increase in retroactive intrusions. Recall under RIP could be predicted from the sum of the RI and PI effects. Doubling the length of the PI or RI lists had less of an effect than the RIP condition.—*R. S. Davidson.*

444. Lloyd, Kenneth E. (Washington State U.) **Supplementary report: Short-term retention as a function of average storage load.** *J. exp. Psychol.*, 1961, 62(6), 632.—Previous studies found recall errors to be systematically related to the average number of items Ss were required to remember. The present study supplements this work by extending the average storage load to higher values, and by using as items words judged to be unrelated. Recall errors were found to increase regularly with average storage load with related or unrelated items and under conditions where Ss recalled one or several items at each recall point.—*J. Arbib.*

445. Mackworth, Jane F. (Defence Research Medical Lab., Toronto, Canada) **The effect of the response upon the immediate memory span.** *Canad. J. Psychol.*, 1962, 16(2), 120-127.—Messages of 9 or 10 digits were presented at 3 speeds, either as a block display or with digits shown separately, and S either dictated or pressed labelled buttons. Type of

display, speed, and response method had significant effects upon memory span. Manual response decreased the number of digits recalled, a difference not attributable to rate of response. The familiarity of the response situation may be important.—*R. S. Davidson.*

446. Mackworth, Jane F. (Defence Research Medical Lab., Toronto, Canada) **Presentation rate and immediate memory.** *Canad. J. Psychol.*, 1962, 16(1), 42-47.—Each of 8 or 9 digits of a message was projected on a screen in successive positions from left to right (2 or 3 rows). Rate varied from $\frac{1}{4}$ to 2 seconds per digit. More messages were correctly recalled at the slower rates, and the number of digits per message correctly recalled was greater. These results do not support the decay theory of memory.—*R. S. Davidson.*

447. Mackworth, Jane F. (Defence Research Medical Lab., Toronto, Canada) **The visual image and the memory trace.** *Canad. J. Psychol.*, 1962, 16(1), 55-59.—The duration of exposure of messages was varied from $\frac{1}{8}$ to 2 sec. for 8-digit messages, and from $\frac{1}{8}$ to 16 sec. for 12-digit messages. For durations of 1 sec. or less there was a linear relationship between duration and number of digits correctly recalled, and it is suggested that the visual image is the limiting factor. At durations of more than 4 sec. the limiting factor is memory capacity.—*R. S. Davidson.*

448. Murdock, Bennet B., Jr. (U. Vermont) **The retention of individual items.** *J. exp. Psychol.*, 1961, 62(6), 618-625.—“Three experiments were conducted on the short-term retention of individual items. Experiment I confirmed the findings of Peterson and Peterson and suggested that the number of items or ‘chunks’ of information in the to-be-remembered stimulus item may be a significant variable in short-term retention. Experiment II demonstrated a significant proactive inhibition effect and suggested that the effect may be a U shaped function of number of preceding items. Experiment III showed that the rate of interpolated activity did not have a significant effect on short-term retention. The implications for a decay theory and an interference theory of forgetting were briefly discussed.”—*J. Arbit.*

449. Reid, Lyne Starling; Lloyd, Kenneth E., Brackett, H. Ray, & Hawkins, William F. (U. Virginia) **Short-term retention as a function of average storage load and average load reduction.** *J. exp. Psychol.*, 1961, 62(5), 518-522.—“Two experiments are reported in which short-term retention was studied in a situation requiring S to remember familiar English words until their recall was requested. During the time S was required to remember these items he was presented other words or asked to recall previously presented items. . . . in a task where the recall of more than one item could be requested at a given point in the sequence, errors increased systematically as the average number of words to be remembered over blocks of recall points, average storage load, was increased. . . . when the average number of items to be remembered was held constant, errors decreased as the average number of items to be recalled at given points, termed average load reduction, was increased.”—*J. Arbit.*

450. Rothkopf, Ernst Z., & Coke, Esther U. (Bell Telephone Lab.) **The prediction of free re-**

call from word association measures. *J. exp. Psychol.*, 1961, 62(5), 433-438.—Hypothesized that the frequency of recall of a given word in a free recall situation depends directly on the number of cues which are provided by other words in the list. The cue number of word W was defined as the number of words in the learning list for which W is normally given as an association response in a word association test. High school students were presented with each of the 99 words on the Kent-Rosanoff list for 5 sec. and tested for recall after 15 min. Support was found for the hypothesis tested.—*J. Arbit.*

451. Smirnov, A. A. (Ed.) **Voprosy psikhologii pamiati.** [Problems in the psychology of memory.] Moscow, USSR: RSFSR Academy Pedagogical Sciences, 1958. 216 p.—This collection of articles presents the results of experimental investigations devoted to the study of the “conditions essential to successful memorization and memory development in children.” Major attention is directed to the development of meaningful memorization and to the role of visual imagery in memory processes.—*I. D. London.*

452. Tulving, Endel, & Patkau, Jeannette E. (U. Toronto, Canada) **Concurrent effects of contextual constraint and word frequency on immediate recall and learning of verbal material.** *Canad. J. Psychol.*, 1962, 16(2), 83-95.—Immediate recall on 6 successive learning trials was determined, with 2 levels of frequency of words orthogonally combined with 5 degrees of contextual constraint. An interaction between word frequency and context was found when number of words recalled was the response variable, but when “adopted chunks” (sequences from input lists) were counted there was no interaction nor difference in recall attributable to word frequency. The importance of subjective organization was discussed.—*R. S. Davidson.*

453. Underwood, Benton J., & Keppel, Geoffrey. (Northwestern U.) **An evaluation of two problems of method in the study of retention.** *Amer. J. Psychol.*, 1962, 75(1), 1-17.—The 2 methodological problems were (a) the control of rehearsal during the retention interval, and (b) the control measure to use so that measurements of retention would not be confounded by differences in degree of original learning. Experimental evidence showed that the 1st problem could not be solved by the use of instructions. 3 solutions to the 2nd were evaluated: a projection of the probable next trial learning score and use of control Ss who (a) were given an immediate recall or, (b) were continued through a postcritical trial. The 1st solution was rejected in favor of either the 2nd or 3rd alternative.—*R. H. Waters.*

454. Waugh, Nancy C. (Harvard U.) **Free versus serial recall.** *J. exp. Psychol.*, 1961, 62(5), 496-502.—The free and serial recall of lists of monosyllabic English words was compared over the course of 6 trials. The curve for serial recall is linear, the curve for free recall is negatively accelerated. This difference results from the fact that fewer new words are learned on each successive trial when recall is free, while an approximately constant number are learned when recall is serial. Free recall was not found to depend in any way on whether the words to be learned were scrambled before every trial or were presented in the same order on all trials. Thus contiguity does not appear to be an important variable. (19 ref.)—*J. Arbit.*

455. Wittrock, M. C., & Husek, T. R. (U. California, Los Angeles) Effect of anxiety upon retention of verbal learning. *Psychol. Rep.*, 1962, 10(1), 78.—Retention of a complex passage of Buddhism was significantly higher for a group of 96 undergraduates who learned the material immediately before a midsemester examination than for a group of 66 who learned during a regular class. The former also scored higher on an Anxiety Differential test.—B. J. House.

THINKING

456. Arieti, Silvano. (22 E. 72nd St. NYC) The microgeny of thought and perception: A psychiatric contribution. *Arch. gen. Psychiat.*, 1962, 6(6), 454-468.—Psychic and brain pathology give some clues to the unconscious processes through which both thinking and perception go before reaching the final result. Stages of "primary aggregation" and "formation of primary categories" showing fragmentation or false wholes can be observed in thinking. "Perceptions go through . . . pre-Gestalt stages." Examples from schizophrenic, neurotic, and brain-injured patients are presented and discussed. (84 ref.)—L. W. Brandt.

457. Bach, Sheldon. (New York U.) Symbolic associations to stimulus words in subliminal, supraliminal, and incidental presentation. *Dissert. Abstr.*, 1961, 21(11), 3519-3520.—Abstract.

458. Ennis, Robert H. (Cornell U.) A concept of critical thinking. *Harv. educ. Rev.*, 1962, 32(1), 81-111.—Construing critical thinking as "the correct assessing of statements," 12 overlapping characteristics of the critical thinker are presented along with appropriate lists of criteria. A logical analysis of the 12 abilities is made along 3 dimensions: logical, critical, and pragmatic. Possible research steps for the evaluation and teaching of critical thinking are suggested.—C. M. Franks.

459. Jodelet, François. Influence associative catégorielle dans l'association verbale à un couple de mots. [Categorical associative influence in verbal association to word pairs.] *Année psychol.*, 1961, 61, 341-359.—Associated response words are more frequently words of the same category as the stimuli words when the latter are drawn from the same semantic category than when they are drawn from different ones. 130 Ss reacting to 96 pairs confirm the hypothesis.—G. Rubin-Rabson.

460. National Physical Laboratory. Mechanization of thought processes. (2 vols.) London, England: Her Majesty's Stationery Office, 1959. 978 p. \$9.30. (2 vols.)—A symposium (No. 10) held at the National Physical Laboratory, November 24-27, 1958. A total of 32 papers and a number of lecture-demonstrations were presented. The material was organized in terms of the following sessions: general principles, automatic programming, mechanical language translation, speech recognition, learning in machines, implications for biology, and implications for industry.—M. J. Wayner, Jr.

461. North, George Everett. (U. Texas) Stereotypy and the role repertory test. *Dissert. Abstr.*, 1961, 21(12), 3855-3856.—Abstract.

462. Osgood, Charles E. (U. Illinois) Studies on the generality of affective meaning systems. *Amer. Psychologist*, 1962, 17, 10-28.—In connection

with work on the theory and measurement of meaning, a reasonably stable and reproducible set of dimensions within which meaningful judgments are made has been developed, and "efforts have been devoted to testing the generality of this semantic system." Major sections are: Learning Theory and Measurement Models, Generality Across People, Speculations on the "Why" of Generality Across People, Generality Across Concepts, Speculations on the "Why" of Concept/Scale Interaction. (3 fig., 13 tables, 27 ref.)—S. J. Lachman.

463. Sartre, Jean-Paul. Imagination: A psychological critique. (Trans. by F. Williams) Ann Arbor, Mich.: Univer. Michigan Press, 1962. xv, 162 p. \$3.95.—Objects exist in themselves; consciousness exists for itself. The problem arises when an image, existing for itself, is considered as an object. The question, "How can the existence of images be reconciled with the requirements of synthesis," contains the assumption of image as object. Then it is too late to consult experience. There are chapters on "Principal Metaphysical Systems," "Associationism," "Bergson," "Bergsonism," "Würzburg School," "The Classical Postulate," "Contradictory Consequences of the Classical Postulate," and "Phenomenology of Husserl."—R. S. Harper.

464. Vygotsky, Lev S. Thought and language. New York: Wiley, 1962. xxi, 168 p. \$4.95.—A translation by Hanfmann and Vakor (with annotations) of the original Russian book published in 1934. The book, consisting of a combination of originally separate essays, begins by outlining the author's approach to the problem of the interrelation of thought and language. This involves "semantic analysis—the study of the development, the functioning, and the structure of this unit, which contains thought and speech interrelated." After presenting critiques of Piaget and William Stern's theories of language development, the author presents his own views on the development of language and his general theoretical views. In addition, he presents empirical studies of concept formation and conceptual development in children. His experimental method of studying concept formation consists of the Vygotsky type block procedure.—H. Pick.

465. White, Leslie A. (U. Michigan) Symbolizing: A kind of behavior. *J. Psychol.*, 1962, 53(2), 311-317.—Symbolizing is a kind of behavior; only Homo sapiens is capable of it. It consists of originating and bestowing meanings, freely and arbitrarily, upon things (objects) and events (acts), and of comprehending such meanings. These meanings cannot be grasped and appreciated with the senses. Holy water, fetishes, rituals, and articulate speech are examples of products of symbolizing. All cultures and human behavior depend upon symbolizing. Symbolizing is to be preferred to symbolizing to designate this kind of behavior because the latter word has another, fundamentally different meaning.—Author abstract.

Problem Solving

466. Duncan, C. P. (Northwestern U.) Probability vs. latency of solution of an insight problem. *Psychol. Rep.*, 1962, 10(1), 119-121.—From a study in which 528 men and 560 women attempted solution of the Maier 2-string problem, probability of solution was found to be a roughly linear function

of log time of solution, "although a better fit could have been obtained with a more complex function. To the extent that the functions are linear, they are similar to log probability functions reported by others for anagram solving."—*B. J. House.*

467. Feather, N. T. (U. Michigan) The relationship of persistence at a task to expectation of success and achievement related motives. *J. abnorm. soc. Psychol.*, 1961, 63(3), 552-561.—This investigation examines the effects of S's motivation to achieve success or avoid failure (measured from TAT), his perception of the degree of difficulty of the task, and his probability of success upon continued attempts (persistence) to solve a given problem. Substantiating hypotheses derived from Atkinson's theory (1957, 1958), the results indicated that persistence occurs when motivation to achieve and anticipation of success are high, or when motivation to avoid failure and anticipation of failure are high.—*G. Frank.*

468. Gagné, Robert M., & Smith, Ernest C., Jr. (Princeton U.) A study of the effects of verbalization on problem solving. *J. exp. Psychol.*, 1962, 63(1), 12-18.—"A study was conducted to determine the effects of (a) requiring Ss to verbalize during practice, and (b) instructions to find a general principle to be stated verbally, on problem solving performance. The three-circle task described by Ewert and Lambert (1932) was used. The Ss were 28 ninth and tenth grade boys. . . . The results appear to indicate that requiring Ss to verbalize during practice has the effect of making them think of new reasons for their moves, and thus facilitates both the discovery of general principles and their employment in solving successive problems."—*J. Arbit.*

469. Glucksberg, Sam. (New York U.) The influence of strength of drive on functional fixedness and perceptual recognition. *J. exp. Psychol.*, 1962, 63(1), 36-41.—"A problem solving task and a perceptual recognition task were represented in S-R terms. Predictions derived from neobehavioristic drive theory were then tested in each situation. Each task was presented under one of two drive levels (high or low) and in one of two forms (dominant response correct or incorrect). High drive impaired performance in both tasks when the dominant response was incorrect. When the dominant response was correct high drive facilitated performance in the perceptual recognition task. The results in the problem solving task, although in the predicted direction, failed to achieve statistical significance. The major prediction of the theory, that there is an interaction between drive level and nature of the dominant response, was confirmed."—*J. Arbit.*

470. Gurova, L. L. (Inst. Psychology, Akad. Pedagogicheskikh Nauk, RSFSR) Myslitel'nye operatsii v protsesse osoznannogo resheniya zadach. [Cognitive operations and problem solving.] *Vop. Psikh.*, 1961, No. 6, 93-104.—To investigate conscious cognitive operations, 43 adult Ss were given geometric problems to solve. These consisted of the task of finding the shape of plane sections formed by passing planes through various solid geometric forms. The verbal reports of the Ss as to how they solved the problems were compared with the solutions found and with the steps of logical solution. Out of such data there appeared to be 2 stages to the process: the 1st is unconscious and results in an

approximate general solution and the 2nd is conscious resulting in a specific solution. The 2nd stage is characterized by "non-obvious" cognitive operations which consist of comparison of the various probable solutions with the initial conditions of the problem.—*H. Pick.*

471. Hoffman, L. R., & Maier, N. R. F. (U. Michigan) Sex differences, sex composition, and group problem solving. *J. abnorm. soc. Psychol.*, 1961, 63(2), 453-456.—Males and females solved Maier's (1952) horse trading problem while working alone or in groups. Men tended to solve the problem better individually but also to profit from group discussion. Women in mixed groups seemed better motivated to solve the problem than those in groups composed of all females.—*G. Frank.*

472. Jeffrey, W. E., & Kluppel, D. D. (U. California, Los Angeles) Mediation variables in concept formation. *Psychol. Rep.*, 1962, 10(1), 191-202.—In a series of experiments, grade school children were trained to associate color names to concrete object, abstract form, and number concepts. In 4 experiments, a variety of pretraining methods, in which appropriate labels or label-color associations or both were taught, improved overall level of performance but did not alter order of difficulty. Since providing labels for each concept failed to remove the order effect, it was inferred that differential difficulty is not the result of unequal availability of appropriate mediating responses. In a 5th experiment in which frequency of types of concepts was varied, support was found for an explanation of the order effect in terms of greater generalization within certain concept types.—*B. J. House.*

473. Johnson, Donald M. (Michigan State U.) Serial analysis of verbal analogy problems. *J. educ. Psychol.*, 1962, 53, 86-88.—A serial exposure method for separating a problem solving episode into 2 phases is applied to analogy problems constructed so that the difficulty can be attributed to either the inductive operation of the 1st phase or the deductive operation of the 2nd phase. When 25 problems of each type were solved by 60 college Ss, the time differences clearly supported this distinction. The problems were presented in 3 formats named, according to the second phase: multiple choice, initial letters, and production. In respect to time of the 2nd phase, initial letters resembled multiple choice, negating the hope that this format required a production process.—*Journal abstract.*

474. Karn, Harry W., & Gregg, Lee W. (Carnegie Inst. Technology) Supplementary report: Effects of instructions on the perception of multiple targets. *J. exp. Psychol.*, 1961, 62(5), 533-534.—In a previously reported perceptual learning study, learning proceeded slowly and the question of the facilitative effect of inducing a cognitive, problem solving set through various types of instruction was raised. In the present study, although instructions lowered the overall magnitude of errors, rate of error reduction was essentially constant. The importance of the perceptual process over the rational, information transmitting process is emphasized.—*J. Arbit.*

475. Luchins, Abraham S., & Luchins, Edith H. (U. Miami) The effect of the degree of freedom of choice on learning and perception.

J. soc. Psychol., 1962, 56, 187-205.—Ss who retraced paths of others, in checkerboard mazes, took more time to get to the goal and recalled fewer of the pictures that were on the mazes' squares than those whose paths they were tracing. Speed conditions produced more rapid responses, more errors, less variety of solutions, and less recall of pictures. Order of presentation affected the results. The results were discussed in terms of the goal gradient hypothesis, serial effects, Einstellung effects, and personal values as determinants of perception, and further research. The study suggests that what is learned when one imitates a solution is different from what is learned when one initiates a solution. Implications for education, social learning, and psychotherapy were considered.—*Author abstract.*

476. Sokolov, A. N. (Inst. Psychology, Akad. Pedagogicheskikh Nauk Moscow, USSR) *Graficheskoe sopostavlenie logicheskii predpolozhennogo i fakticheskogo khoda resheniya zadach.* [Graphical comparison of the logically predicted and actual course of solution of problems.] *Vop. Psikholog.*, 1961, No. 6, 77-92.—A method for presenting graphically the solution of any problem for which there is a logical algorithm. The algorithm solution is represented on a graph on which the ordinate represents the number of the step, the abscissa represents the number of the steps toward solution. Thus the algorithm solution would be a straight line with a slope of 45°. From the protocols of Ss asked to think aloud or record the steps of their thinking, the steps that they make are rated with respect to how many steps toward solution each step is. Thus the order of the step and its rating from a number couple (x,y) which defines the coordinate of each step. These steps are then represented graphically along with the algorithm solution. Various characteristics of the solution can be picked off the graph easily, e.g., which steps are omitted, how many steps are taken, etc. Examples of application to 3 physics problems are given.—*H. Pick.*

477. Tikhomirov, O. K. (Moscow State U.) *Reshenie myslitel'nykh zadach kak veroyatnostnyi protsess.* [Solution of cognitive tasks as a probabilistic process.] *Vop. Psikholog.*, 1961, No. 5, 63-76.—An analysis of conjunctive concept attainment is presented which follows closely that outlined by Bruner, Goodnow, and Austin in *A Study of Thinking* (see 31: 582). The analysis is generalized to cases where the various concept classes are assigned different probabilities of being correct. The strategy for minimum trial solution, when the entire array of instances is known to a person, is worked out with the help of Bayes' theorem. The actual behavior of the S is then compared to this ideal strategy. Departures from the ideal are attributed to the facts that Ss do not select choices which eliminate the largest number of hypotheses, particularly after having chosen a negative instance, and that they occasionally make wild guesses instead of systematically eliminating all alternative hypotheses.—*H. Pick.*

478. Tuckman, Jacob, & Lorge, Irving. (Dept. Public Health, Philadelphia) *Individual ability as a determinant of group superiority.* *Hum. Relat.*, 1962, 15(1), 45-51.—420 Air Force Reserve Officer Training Corps cadets were divided into 70 groups to solve a mined road problem. These control groups were compared to 70 individuals in their solution of

the problem, and again to the same individuals re-assembled into groups of 5 to re-solve the problem. The results indicate that groups are superior to individuals, not so much on account of the greater effectiveness of groups in solving problems, but rather on account of the greater probability of getting a good solution from a group of 5 than from any one individual.—*W. W. Meissner.*

Concepts

479. Alberoni, Francesco. (U. Cattolico Sacro Cuore, Milan) *Contribution to the study of subjective probability. Part I.* *J. gen. Psychol.*, 1962, 66(2), 241-264.—A "study of the mental processes by means of which the subject arrives at the idea of probability and the fundamental operations used to calculate it." Groups of university students were questioned about their expectations in 15 different probability situations. Their replies are discussed. (16 ref.)—*E. Y. Beeman.*

480. Alberoni, Francesco *Contribution to the study of subjective probability: Prediction. Part II.* *J. gen. Psychol.*, 1962, 66(2), 265-285.—A "study of the intellectual processes on which probabilistic prediction depend." In 8 experiments Ss were questioned about their expectations in probabilistic situations involving red and blue beads. Their reactions are discussed, and the types of reasoning being used are inferred.—*E. Y. Beeman.*

481. Davis, Keith G., & Hess, Harrie F. (U. Colorado) *The effectiveness of concepts at various levels of awareness.* *J. exp. Psychol.*, 1962, 63(1), 62-67.—"This experiment was a replication of the oft-cited study by Rees and Israel (1935) which reported that 6 out of 10 (60%) of experimental Ss developed and used highly effective concepts that were below the level of awareness. In the replication more Ss were used than in the original experiment, and a more systematic method of assessing awareness was employed. None of the Ss in the replication study developed efficient concepts at a level below awareness. Instead a close relation between awareness and anagram solving efficiency was noted, contrary to one of the main implications of the Rees and Israel study."—*J. Arbib.*

482. DiVesta, Francis J. (Syracuse U.) *Contrast effects in the verbal conditioning of meaning.* *J. exp. Psychol.*, 1961, 62(6), 536-544.—College students learned one concept-attitude based on words strongly representing the evaluative or potency dimension of meaning and another concept-attitude based on words having neutral meanings on the respective dimension being manipulated. Concept-attitudes were shown to develop specifically to the meaning dimension involved in the words used in conditioning. Also, concept-attitudes learned to neutral meanings, although conditioned to exactly the same words, were found to be rated in direct opposition to the respective critical concept. A mediation hypothesis, anchor effects, and the "boomerang" effect in the development of attitudes were employed in discussing the results.—*J. Arbib.*

483. Feigenbaum, Edward A. (U. California, Berkeley) *An experimental course in simulation of cognitive processes.* *Behav. Sci.*, 1962, 7(2), 244-245.—A graduate seminar in this area is described, and several student reports are appended.

The titles of the reports are: "A Simulation Program for Concept Attainment by Conservative Focusing"; "A Concept Attainment Program That Simulates a Simultaneous-Scanning Strategy"; "A Nerve Net Simulation"; "An IPL Program for Formal Integration Using Tables"; and "RECOG, A Computer Program for the Automatic Scanning of Bubble Chamber Photographs."—*J. Arbit.*

484. Gagné, Robert M., & Brown, Larry T. (Princeton U.) Some factors in the programming of conceptual learning. *J. exp. Psychol.*, 1961, 62(4), 313-321.—33 boys in Grades 9 and 10 were formed into 3 groups and learned materials in 1 of 3 ways: by rule and example, by guided discovery, and by the S's own discovery. Best performance was found with guided discovery, worst for rule and example, and intermediate for self-discovery. Discussion emphasizes "what is learned" by each method rather than the importance of "how it is learned."—*J. Arbit.*

485. Hunt, Earl B. (Yale U.) Memory effects in concept learning. *J. exp. Psychol.*, 1961, 62(6), 598-604.—"The utilization of information transmitted by a particular instance was investigated as a function of the position of the instance in a series of instances used to define a concept. Utilization of information was determined by observing S's action on a categorization task. An interference effect was found for instances intervening between the information transmitting instance and the beginning of the test."—*J. Arbit.*

486. Mayzner, M. S., & Tresselt, M. E. (U. Southern California) Verbal concept attainment: A function of the number and strength of positive instances presented. *J. Psychol.*, 1962, 53(2), 469-474.—"The present study examined the effect of the number and strength of positive instances presented on verbal concept attainment. The results, predicted on the basis of an S-R mediational model, showed a significant and systematic increase in the number of positive instances required to attain the correct concept as the response strength of the positive instances to evoke the correct concept decreased."—*Author abstract.*

487. Sagotovskii, V. N. Chuvstvennye osnovy poniatii. [Sensory bases of the concept.] *Vop. Fil.*, 1962, 16(1), 123-133.—The author discusses 2 related questions: (a) "how is a concept connected with its object" and (b) "in what way does a concept develop its general meaning"? The author feels that "apriorism" can be avoided only if the "roots of all elements of conceptual thinking be found in the sensory patterned reflection of reality" in accordance with Lenin's theory of reflection of reality in man's consciousness.—*I. D. London.*

488. Shevarev, P. A. (Inst. Psychology, Akad. Pedagogicheskikh Nauk RSFSR, Moscow, USSR) Abstragirovanie naglyadno dannykh sbolstv i osobennostei predmetov. [Abstraction of visually given properties and qualities of objects.] *Vop. Psikh.*, 1961, No. 6, 63-76.—An analysis of the meaning of the term abstraction particularly as it is involved in perception. Abstraction is considered to be a process of "mental discernment" of properties, position, numerosity, or relations of an object or group of objects. In order to determine what features of an object are discerned it is often necessary

to present a number of objects differing in various ways and noting which objects evoke similar and different responses. Abstraction includes discernment of properties peculiar to an individual object as well as class properties. As far as the process of abstraction is concerned the discernment of essential or unessential qualities represents no difference. But the discernment of essential and nonessential properties becomes significant in practical training.—*H. Pick.*

489. Smith, Raymond G. (Indiana U.) A semantic differential for speech correction concepts. *Speech Monogr.*, 1962, 29, 32-37.—An instrument involving 10 area-related concepts and 30 scales was developed on 100 Ss. Factor analyses by Varimax rotation were performed by ILLIAC. 4 factors appeared to be identifiable: Interestingness, measured by such scales as boring-interesting and colorless-colorful; Pleasantness, beautiful-ugly and pleasing-annoying; Honesty, honest-dishonest and true-false; and Difficulty, measured by difficult-easy and slow-fast scales. Further uses of the instrument are discussed.—*D. Lebo.*

DECISION & INFORMATION THEORY

490. Arnoult, Malcolm D., & Price, Charles W. (Texas Christian U.) Pattern matching in the presence of visual noise. *J. exp. Psychol.*, 1961, 62, 372-376.—4 patterns of dots were constructed and a number of test patterns varying from the basic design in terms of adding or subtracting dots (noise level) were constructed for each prototype pattern. Ss were college students whose task was to determine which of the prototype patterns each test pattern most resembled. As distortion level increased, the information transmitted decreased and errors increased.—*J. Arbit.*

491. Back, Kurt W. (Duke U.) Decisions under uncertainty: Rational, irrational, and non-rational. *Amer. behav. Scientist*, 1961, 6, 14-19.—2 models of decision-making have dominated thought and research on decisions in the behavioral sciences: rational models, of which game theory and statistical decision theory are examples, and irrational models, which derive choices among alternatives from psychodynamic factors or preferences of the person. The author analyzes the assumptions of each of these general classes of models and then suggests that an additional model, which he calls nonrational, is needed to account for many aspects of decision-making. Nonrational decisions are unique decisions occurring under conditions of either extreme or trivial importance in which the actor has insufficient knowledge of the probabilities associated with various alternatives. An important aspect of nonrational decisions is that the voluntary commitment to an alternative creates something new not contingent upon past internal and external factors.—*K. E. Davis.*

492. Brainard, Robert W., Irby, Thomas S., Fitts, Paul M., & Alluisi, Earl A. (Ohio State U.) Some variables influencing the rate of gain of information. *J. exp. Psychol.*, 1962, 63(2), 105-110.—Investigated the effects on information processing of (a) the use of self-paced serial reactions vs. discrete reactions, (b) the use of different types of stimuli and responses, and (c) the use of 3 levels

of stimulus uncertainty. Reaction time was an increasing linear function of the average amount of information transmitted. The self-paced and discrete tasks gave very similar results. The findings are interpreted as indicating the importance of overlearning in determining S-R compatibility effects. Also, S's familiarity in dealing with specific subsets drawn from familiar alphabets may affect his information-handling rates when restricted subsets of stimuli and responses are used.—*J. Arbit.*

493. Brichcín, M. (Charles U., Prague) *Rozbor problematiky volního úsilí*. [Analysis of the problems of volitional effort.] *Ceskoslov. Psychol.*, 1961, 5, 340-354.—Author's conclusions drawn subsequent to discussion of 8 psychologists about his original paper "Problems of Volitional Effort (see 36: 3CC21B). Volitional effort is a specific case of volitional regulation of activity. By its means man is capable of suppressing even very strong biological needs and, despite considerable obstacles, he can reach the aim decided upon in accordance with relatively weak but rationally well-founded incentives. It is a complex of cerebral processes, an inseparable component of which is the feeling of effort; the chief part of this complex is the dominant focus of excitation (Uchomski). The cerebral cortex dominant probably summarizes mainly the proprioceptive impulses. The leading role in the nervous mechanism of volitional effort belongs to the 2nd signal processes. Volitional effort is a special case of the adaptation and activation processes which prepare the whole organism for optimal control of the coming load. (44 ref., Russian & English summaries)—*V. Bricháček*.

494. Brillouin, Léon. *Science and information theory*. (2nd ed.) New York: Academic, 1962. xvii, 351 p. \$9.00.—The 2nd edition adds material on the role of errors in scientific observation and a critical discussion of determinism from the standpoint of information theory to the material of the 1st edition, which applied information theory to a great number of problems of physics, including: the analysis of signals; thermodynamics; Brownian movement; thermal agitation in electronic tubes, rectifiers, etc.; entropy; Maxwell's demon; Szilard's well-informed heat engine; observations and error; communication; and computing. The new material on determinism leads to Brillouin's "matter of fact" point of view that strict determinism is impossible in scientific prediction because the high cost at some point makes increasing accuracy unattainable. The limit of accuracy is a practical rather than an inevitable limitation in the logical sense. The limitations can be formulated in precise ways by quantum conditions and information theory and should be included in the physical theory.—*D. A. Grant*.

495. Brody, Nathan. (U. Michigan) *Demand for certainty, motivation, and the decision process*. *Dissert. Abstr.*, 1961, 21(12), 3842.—*Abstract*.

496. Bruner, Jerome S. (Harvard U.) *Quelques observations sur le choix*. [Observations concerning choice.] *J. Psychol. norm. pathol.*, 1961, 58(3), 271-289.—To the extent to which an individual's behavior is regulated by reward and punishment of each response, the prediction can be made from external conditions to internal processes. The behavior of an organism which has evolved a "strategy" is predictable in the opposite direction.

The author suggests that the latter condition obtains in most instances of complex behavior.—*M. L. Simmel*.

497. Campbell, Richard John. (Ohio State U.) *Team composition and group decision-making in a collective bargaining situation*. *Dissert. Abstr.*, 1961, 21(11), 3939-3940.—*Abstract*.

498. Dale, H. C. A. *On choosing between bets*. *Quart. J. exp. Psychol.*, 1961, 14(1), 49-51.

499. Deutsch, Morton. *The face of bargaining*. *Operat. Res.*, 1961, 9, 886-897.—A 2-person bargaining game was investigated experimentally. It was found that (a) when threat is available to both players, rather than one, agreement is most difficult; (b) payoff is maximized under conditions of no threat for either person; (c) permissive communication does not produce more payoff than when no communication is present; and (d) compulsory communication produces an improvement in payoff for the unilateral threat condition only. The findings were discussed with respect to the balance of cooperative and competitive motivational forces present and the players' need to retain "face" in interpersonal encounters.—*M. R. Marks*.

500. Erlick, Dwight E. (Wright-Patterson AFB) *Perception of the most frequent category of a random series as a function of the number of categories*. *J. exp. Psychol.*, 1962, 63(2), 115-118.—"The main variables of concern were: the relationship between information transmitted (T) and (a) the frequency difference between categories (ΔF), and (b) the information input (H). The different categories were 2, 4, 8, or 12 (H in bits = 1, 2, 3, and 3.6, respectively). Within each H condition a basic frequency of 20 was used for all except one category, which had an increased frequency of one of five values. Categories were presented randomly at the rate of four per sec. The Ss were instructed to indicate the category which appeared most frequently. The results indicate that approximately the same linear relationship exists between T and ΔF for all H conditions with $T = .0113 \Delta F - .1342$. The relationship between T and H indicates a slight decrease in T as H increases."—*J. Arbit.*

501. Gardner, R. Allen, & Forsythe, John B. (Wellesley Coll.) *Supplementary report: Two-choice decision behavior with many alternative events*. *J. exp. Psychol.*, 1961, 63(6), 631.—With multiple-choice versions of the probability learning experiment it has been shown that P (A), the relative frequency of A choices where A is the most frequent alternative, is an increasing function of the number of alternatives. "The present study was an attempt to reproduce this result by varying the number of alternative events in the series, A, B, C, . . . , N, while restricting S to two choices, A or not-A." There was no detectable effect of the number of alternative events. However, the outcome was distinctly different from that obtained when both the number of choices and alternative events were varied together.—*J. Arbit.*

502. Garner, Wendell R. (Johns Hopkins U.) *Uncertainty and structure as psychological concepts*. New York: Wiley, 1962. ix, 369 p. \$8.95.—A mathematical basis stemming from information

theory has been used "to develop ideas about and an understanding of some psychological problems." The 1st 4 chapters discuss uncertainty in reference to perceptual discrimination and information transmission. Chapter 5 deals with "the partitioning of structure and meaning." Pattern perception, language redundancy, other sequential behavior, and concept formation are considered in Chapters 6 through 10. Chapter 11 is a "Final Commentary."—*E. Y. Beeman.*

503. **Graham, Frances K., Ernhart, Clarie B., Thurston, Don, & Craft, Marguerite.** (U. Wisconsin School Medicine) **Development three years after perinatal anoxia and other potentially damaging newborn experiences.** *Psychol. Monogr.*, 1962, 76(3, Whole No. 522), 53 p.—The question was investigated of whether or not permanent impairment and/or a "continuum of reproductive casualty" follow perinatal anoxia or other trauma associated with birth. The study of 355 children shortly after birth, with a follow-up at 3 years of age, included neurological examination; anthropometric, intelligence, personality, and perceptual-motor measurements; and concept formation. Among the many findings were: (a) Anoxic Ss were poorer than controls on all cognitive function tests including Form L of the Stanford-Binet, a vocabulary test, and a concepts test. Impairment was found greatest in conceptual ability. (b) The blood-oxygenation of the newborn did not vary consistently with performance at age 3. (c) Prognosis worsened as the severity or the number of perinatal complications increased. The investigators concluded that anoxia does not appear to have an all-or-none effect.—*M. A. Seidenfeld.*

504. **Daming, D. R. J.** (Cambridge U.) **A statistical test of a prediction from information theory in a card-sorting situation.** *Quart. J. exp. Psychol.*, 1962, 14(1), 38-48.—Previous work with cards left the joint effects of varying entropy and discriminability on choice-reaction times somewhat in doubt. A card-sorting situation is here constructed in which entropy and discriminability can be varied independently. 2 experiments are described with naive Ss and 2 different treatments of the practice effect. The effect of varying entropy with discriminability held constant is shown to be significantly nonlinear, contrary to the prediction from information theory. Finally, a statistical model is proposed which shows at least qualitative agreement with the results of these experiments.—*Journal abstract.*

505. **Leont'ev, A. N., & Krinchik, E. P.** (Moscow State U.) **O primeneni teorii informatsii u konkretno-psikhologicheskikh issledovaniyakh.** [On the application of information theory to concrete psychological investigations.] *Vop. Psikh.*, 1961, No. 5, 25-46.—A review, mainly of American and British studies, relating the amount of information present in a sequence of stimuli to the reaction time to the various stimuli. The successes of an information analysis in predicting reaction time are described and limitations of such an analysis pointed out; e.g., the fact that an information analysis based solely on number of alternatives ignores the discriminability of the stimuli and the value of the possible responses. A brief description is presented of current investigations in the authors' laboratory in which reaction

time to separate signals differing in probability of appearance is under study.—*H. Pick.*

506. **Littig, L. W.** (U. Buffalo) **Effects of skill and chance orientations on probability preferences.** *Psychol. Rep.*, 1962, 10(1), 67-70.—10 probability-variance combinations were presented to 60 college students in the form of 45 paired comparisons. The S chose from each pair his preferred combination prior to play on a pinball machine with probabilities determined by E. Variance was controlled by size of wagers and prizes. Significant effects were preferences for higher winning probabilities, higher variance, and an interaction such that higher probability of winning is preferred when stakes are higher. No differences were found between Ss instructed that skill could influence results and uninstructed Ss.—*B. J. House.*

507. **Luce, R. Duncan.** (U. Pennsylvania) **An observable property equivalent to a choice model for discrimination experiments.** *Psychometrika*, 1962, 27(2), 163-167.—The choice model considered by Luce in an earlier work is stated in terms of unobservable parameters. In this paper a consequence of the model, involving only observables, is shown to be equivalent to the model.—*Journal abstract.*

508. **Luce, R. Duncan, & Shipley, Elizabeth F.** (U. Pennsylvania) **Preference probability between gambles as a step function of event probability.** *J. exp. Psychol.*, 1962, 63(1), 42-49.—College students chose repeatedly between pairs of gambles. Payoff on each trial was determined by the particular choice together with the outcome of a chance event which was completely independent of the choice. The mathematically derived prediction was tested that when certain inequalities are satisfied by the payoffs, S's choice probability is a step function of the event probability. It was tentatively concluded that the data support the step function hypothesis more strongly than an ogival one, and that indirect confirmation is given to the assumption underlying the prediction.—*J. Arbit.*

509. **Myers, Jerome L., Reilly, Raymond E., & Taub, Harvey A.** (U. Massachusetts) **Differential cost, gain, and relative frequency of reward in a sequential choice situation.** *J. exp. Psychol.*, 1961, 62(4), 357-360.—"Gain, cost, and frequency ratios were manipulated for two events in a sequential choice situation with monetary incentives. Percentage prediction of the events was strongly influenced by these variables and by their interaction. The relation between percentage prediction of an event and the expected value associated with it was discussed."—*J. Arbit.*

510. **Olmsted, Charlotte.** (Stanford U.) **Heads I win—tails you lose.** New York: Macmillan, 1962. 277 p. \$4.50.—A nontechnical examination of "games and the people who play them." The book discusses a wide range of organized and unorganized games of chance in various historical, cultural, and sub-cultural contexts. Attention is given to the "symbolism" of the specific games and the "motivation" of the gambler.—*R. E. Schutz.*

511. **Robertson, Joseph Gray, Jr.** (Pennsylvania State U.) **Decision making in two-person two-choice zero-sum games under different incentive conditions.** *Dissert. Abstr.*, 1961, 22(1), 337.—*Abstract.*

512. Roby, Thornton B. (Tufts U.) **Utility and futurity.** *Behav. Sci.*, 1962, 7(2), 194-210.—"This article is concerned with choice or decision situations in which the consequences of a given choice extend well beyond the immediate choice referents. This is taken to be typical of real-life decisions as opposed to most laboratory studies in which a choice response leads to a once-and-for-all 'payoff.' We shall propose a taxonomy for such extended consequence conditions and describe mathematical techniques for studying special, but important, cases. The framework is based on the assumed ability of the choosing organism to react to consistent probabilistic relationships in his environment."—*J. Arbit.*

513. Schoeffler, M. S. (Bell Telephone Lab.) **Response strength versus all-or-none interpretation of response occurrence.** *Psychol. Rep.*, 1962, 10(1), 255-258.—"Data from a two-choice discrimination task [using 234 students] were compared with predictions from an incremental response strength theory and with predictions from an all-or-none theory and indicate that the latter provides relatively good predictions while the former can be rejected confidently."—*B. J. House.*

514. Schwartz, Noel F. (Behavioral Sciences Lab.) **A game theory apparatus for psychological research.** *USAF ASD tech. Rep.*, 1961, No. 61-239. 6 p.—This report describes an electrical apparatus designed to facilitate psychological research in games of strategy for game matrices no larger than 3×3 . The description includes an operational procedure and an explanation of the circuitry with an accompanying photograph of the equipment and simplified schematic. The apparatus provides push-button selection of matrix columns by 1 S and rows by his opponent who may be another S or the E. These selections determine numerical payoff values of varying desirability for the players. This conflict situation allows the psychologist to study various aspects of human behavior, such as strategy formation.—*USAF ASD.*

515. Shinkman, Paul G. (IBM Research Cent., Yorktown Heights, N. Y.) **Perception of stimuli of varying dimensionality.** *J. exp. Psychol.*, 1961, 62(5), 626-627.—A study by Anderson and Fitts (see 33: 9544) found that more information was transmitted by numerals superimposed on color patches than by either numeral or color patches alone when these stimuli were presented for .1 sec. to Ss who had been instructed to write down what they saw. The present study attempted to replicate the previous work and to study the effect of differences in visual angle in producing the effect found. The results show that the Anderson and Fitts data are not only reproducible, but are also stable under minor procedural alterations, including changes in brightness level.—*J. Arbit.*

516. Shipley, Elizabeth F. (U. Pennsylvania) **Detection and recognition with uncertainty.** *Disser. Abstr.*, 1961, 21(12), 3847.—*Abstract.*

517. Teichner, W. H. (U. Massachusetts) **Psychophysical concepts of probability.** *Psychol. Rep.*, 1962, 10(1), 3-9.—32 undergraduates were required to guess which of 16 lights arranged in a 4×4 matrix would flash on each trial. Marginal probabilities ranged from .05 to .60. Subjective

probability, confidence, and value were measured by cell frequency of guesses, a rating scale, and size of wager, respectively. All 3 scales overestimated low and underestimated high probabilities, but were judged sufficiently independent to warrant consideration of 3 different processes.—*B. J. House.*

518. Yaryan, R. B., & Festinger, L. (Stanford U.) **Preparatory action and belief in the probable occurrence of future events.** *J. abnorm. soc. Psychol.*, 1961, 63(3), 603-606.—This study was conducted to determine the influence of behaving as if an event will occur on the belief that it will occur. It was hypothesized that such behavior should increase the belief in the likelihood of the event occurring. Ss (volunteer female high school students) were told that $\frac{1}{2}$ the Ss who volunteered would have to take an exam, but not whether they were in that group (50% probability). All Ss were required to do some preparatory study; $\frac{1}{2}$ were told to memorize the data in preparation for the exam, $\frac{1}{2}$ to only acquaint themselves casually with it. Ss were then asked their assessment of the probability that they were included in the group to be tested. A larger percentage of the group that had to make the greatest effort (memorize vs. acquaint) believed they would have to take the test.—*G. Frank.*

PHYSIOLOGICAL PSYCHOLOGY

519. Cole, Kenneth, & Kishimoto, Uichiro. **Platinized silver chloride electrode.** *Science*, 1962, 136(3514), 381-382.—A hybrid electrode made by platinizing silver-silver chloride has been found to combine the stable potential and low direct-current resistance properties of a silver-silver chloride electrode with the low high-frequency impedance characteristic of a platinized platinum electrode.—*Journal abstract.*

520. Davis, R. C. **Experiment and theory in physiological psychology.** In Sigmund Koch (Ed.), *Psychology: A study of a science*. Vol. 4 (see 37: 93). Pp. 242-279.—What physiological psychology is and what types of work it includes are discussed, 4 samples of experimental studies from the 1940's and '50's are described and summarized. 5 prominent theories are examined. Rashevsky's mathematical biophysics, McCulloch's binary digital theory, pattern theory, Hebb's theory, and Pribram's synthesis. The difficulties involved when theory and experiment work together are discussed. (37 ref.)—*E. Y. Beeman.*

521. Diamond, I. T., & Chow, K. L. (Duke U.) **Biological psychology.** In Sigmund Koch (Ed.), *Psychology: A study of a science*. Vol. 4. (see 37: 93). Pp. 158-241.—"In the first section, it was argued that species differences reveal behavior traits which organisms possess as they possess organs." The 2nd section traces the evolution of the cortex and thalamus. Sections 3 and 4 review and discuss work with ablations and electrical recording. Section 5 proposes there is room in psychology for neurologizing and analysis at the organ level. (176 ref.)—*E. Y. Beeman.*

522. Kaplan, Michael, Campbell, Sam L., Martin, John M., Wulp, David G., & Lipinski, C. Edward, Jr. (Creedmoor Inst. Psychobiologic Studies) **A restraining device for psychophysio-**

logical experimentation with dogs. *J. exp. Anal. Behav.*, 1962, 5(2), 209-211.—A detailed description of a restraining device used with beagle dogs.—*J. Arbit.*

523. Landahl, H. D. (U. Chicago) **Mathematical theory of the central nervous system.** *Ann. N. Y. Acad. Sci.*, 1962, 96, 1056-1070.—An attempt to treat psychological problems with neural net models is presented. A neural element acting once after each input impulse yields a "discrete" model. One whose frequency depends on average input frequency yields a "continuous" model. A number of transient effects such as the perception of movement and certain color effects can be accounted for by a simple model. Certain aspects of discrimination and conditioning (including overlearning, spaced practice effects, and initial response probability) are also formulable in terms of relatively simple nets. (37 ref.)—*B. S. Aaronson.*

524. Livingston, Robert B. (National Inst. Health, Bethesda, Md.) **How man looks at his own brain: An adventure shared by psychology and neurophysiology.** In Sigmund Koch (Ed.), *Psychology: A study of a science. Vol. 4* (see 37: 93). Pp. 51-99.—The history of neurophysiology in the Western and Russian traditions is presented as well as several concepts pertinent to psychology which have been changing rapidly, and sometimes radically, in the last few years. Some research is summarized from areas of comparative and developmental neurophysiology, circulation and metabolism, neuron biophysics and physiology, physiology of the neuroglia, and the study of brain circuitry. (55 ref.)—*E. Y. Beeman.*

525. Miller, Neal E. (Yale U.) **Analytical studies of drive and reward.** *Amer. Psychologist*, 1961, 16, 739-754.—An attempt was made to analyze some of the fundamental mechanisms involved in drive and reward. Topics covered are: the effect of drive on reward and learning, brain electrolytes and thirst, and a new conception of the brain. "The brain is an active organ which exerts considerable control over its own sensory input. The brain is a device for sorting, processing, and analyzing information. The brain contains sense organs which respond to states of the internal environment, such as osmotic pressure, temperature, and many others. The brain is a gland which secretes chemical messengers, and it also responds to such messengers as well as to various types of feedback, both central and peripheral." (21 fig., 36 ref.)—*S. J. Lachman.*

526. Morrell, F. (Stanford U. School Medicine) **Electrophysiological contributions to the neural basis of learning.** *Physiol. Rev.*, 1961, 41(3), 443-494.—The recent literature on alterations in spontaneous rhythms and in evoked potentials and on the formation of temporary connections is reviewed, after which long-term mechanisms of storage are discussed. The search for such mechanisms is "likely to involve a molecular or submolecular level of organization." (359 ref.)—*C. T. Morgan.*

527. Pribram, Karl H. (Stanford U. School Medicine) **Interrelations of psychology and the neurological disciplines.** In Sigmund Koch (Ed.), *Psychology: A study of a science. Vol. 4* (see 37: 93). Pp. 119-157.—After a discussion of "what is neuropsychology?" and its important variables, 5

experiments are summarized involving rate of lever pressing response under food deprivation, after amygdectomy, and after frontal lesions, and effects of amygdectomy in conditions of transposition and sequential discrimination. The methods of the neuro-psychologist are discussed. (51 ref.)—*E. Y. Beeman.*

528. Rashevsky, N. (Conf. Ed.) (U. Chicago) **Mathematical theories of biological phenomena.** *Ann. N. Y. Acad. Sci.*, 1962, 96, 895-1116.—Proceedings of a conference on the application of mathematical models to biology. Topics include enzyme reactions, pharmacology, respiration, circulation, mortality, cellular proliferation, electronics, the central nervous system (see 37: 523) and nerve processes, and some general papers on the application of mathematical methods to biology.—*B. S. Aaronson.*

529. Rosenblith, W. A., & Vidale, Eda B. (Massachusetts Inst. Technology) **A quantitative view of neuroelectrical events in relation to sensory communication.** In Sigmund Koch (Ed.), *Psychology: A study of a science. Vol. 4* (see 37: 93). Pp. 334-379.—Work in electrophysiology is discussed, including neural representations of time and intensity variables, localization, assessment of state variables, and responses to discrete stimuli. "... the important aspects of neural functioning seem to be represented by more or less complicated spatiotemporal patterns of neuroelectrical activity and are not merely given by absolute values of electrical changes as a function of time." (76 ref.)—*E. Y. Beeman.*

530. Rosner, Burton S. (West Haven VA Hosp.) **Psychophysics and neurophysiology.** In Sigmund Koch (Ed.), *Psychology: A study of a science. Vol. 4* (see 37: 93). Pp. 280-333.—"The first sections of this paper reviews modern neurophysiology... part 2 takes up the empirical variables of psychophysics and some general theoretical approaches to psychophysical processes. Discussion of current and possible future relationships between the two disciplines occupies the final section of this article." (107 ref.)—*E. Y. Beeman.*

531. Sniakin, P. G. **O tsentral'noy regulyatsii deyatel'nosti sensorn'ikh sistem.** [Central control over activity of sensory systems.] *Fiziol. Zh. SSSR*, 1961, 47(11), 1345-1351.

532. Spuler, H., Szekeley, E. G., & Spiegel, E. A. (Temple U. Medical Center) **Stimulation of the ventrolateral region of the thalamus: Its effect upon tremor induced by midbrain stimulation in cats.** *Arch. Neurol.*, 1962, 6, 208-219.—Lesions of the ventrolateral area of the thalamus reduce tremor and rigor in patients with Parkinsonism, while stimulation of this region results in facilitation or modification of tremor. This study analyzes the significance of stimulation effects with 78 anesthetized cats (some with combined degeneration of descending fibers of the internal capsule and of the pallidofugal fibers). (22 ref.)—*R. Gunter.*

533. von Bonin, Gerhardt. (U. Illinois, Coll. Medicine) **Brain and mind.** In Sigmund Koch (Ed.), *Psychology: A study of a science. Vol. 4* (see 37: 93). Pp. 100-118.—"... while the idea that the life of the mind and the life of the brain are correlated seems eminently reasonable and true, we cannot yet work it out in detail... To equate cor-

tical events with conscious events is certainly quite unjustified." The reticular system is a candidate for the oldest seat of consciousness and the contribution of the quadrigeminal bodies not fully understood. The anatomy of the brain places certain limits on the ways the brain can work, but an understanding of just how it does work will require many more years of study and research. (61 ref.)—E. Y. Beeman.

NEUROANATOMY & PHYSIOLOGY

534. Delov, V. E., Adamovitch, N. A., & Borgest, A. N. Vliyanie afferentnykh impul'sov s retseptorov vnutrennikh organov na bioelektricheskuyu aktivnost' kor'i limbicheskoi doli golovnogo mozga. [Relationship between cerebral cortex and hypothalamus in control of blood pressure.] *Fiziol. Zh. SSSR*, 1961, 47(9), 1083-1086.

535. Nachmansohn, David. (Columbia U.) The propagation of nerve impulses. *Yale scient. Mag.*, 1962, 36(5), 20-26.—In this paper, the mechanism of nerve impulse transmissions is summarized. In addition, the author presents a new theory of nerve conduction which greatly extends the role of acetylcholine beyond its former one of a neurohormone acting at the synapses.—*Journal abstract*.

536. Nekrasov, P. A. K fiziologii retseptorov perifericheskikh nervnykh stvolov. [Contribution to physiology of receptors of peripheral nerve trunks.] *Fiziol. Zh. SSSR*, 1961, 47(9), 1105-1113.

537. Snider, R. S., & Lee, J. C. (Northwestern U.) A stereotaxic atlas of the monkey brain (*Macaca mulatta*). Chicago, Ill.: Univer. Chicago Press, 1961. 130 p. \$12.50.—A series of 122 photomicrographs of brain sections reproduced at a magnification of 9.5 approximately labeled, and scaled for use with a stereotaxic instrument. There is an index of major structures.—C. T. Morgan.

538. Turbes, C. C., & Freeman, L. W. (Purdue U.) Morphologic findings in studies of regeneration of synapses in the mammalian spinal cord. *Neurology*, 1961, 11(11), 970-976.—Since little evidence was available concerning functional or morphological reestablishment of synaptic connections in mammals, the neurilemmal portion of the dorsal roots was inserted into the spinal cord to the depths of the gray columns in 27 female dogs. The authors summarized that "regenerating peridendritic and perisomatic nerve fibers and synaptic endings were found on neurons in regions adjacent to the inserted dorsal root. Regenerating nerve root fibers with neurilemmal cells, fibroblasts, and connective tissue were found growing around blood vessels and between ependymal cells in these areas. Preliminary physiologic studies indicate reestablishment of functional synaptic connections determined by stimulating the regenerating dorsal root and observing muscle contraction."—R. Gunter.

LESIONS & BEHAVIOR

539. Adey, W. R., Walter, D. O., & Lindsley, D. B. (U. California, Los Angeles) Subthalamic lesions: Effects on learned behavior and correlated hippocampal and subcortical slow-wave activity. *Arch. Neurol.*, 1962, 6, 194-206.—The study investigates the rhythmic slow waves as found during discrimination learning in hippocampus and sub-

thalamus, rostral midbrain, reticular formation, and sensory projection area of the cortex. The Ss were 5 implanted cats (2 of which died). The results confirmed previous findings the "6-cycles-per-second activity appeared in hippocampal structures during the approach performance and was accompanied by similar bursts of slow waves in diencephalic areas, including subthalamus and midbrain reticular substance, and in sensorimotor area of the cerebral cortex." Bilateral electrocoagulation resulted in performance changes which were accompanied by loss of normal slow wave patterns in hippocampus and extrahippocampal structures. Recovery of normal discriminatory functions was accompanied by return of normal wave patterns. "Even when discrimination was most gravely impaired, there was no interference with classical conditioned motor responses in the test situation." The subthalamic lesions resulted in awareness loss of contralateral $\frac{1}{2}$ of environment. (21 ref.)—R. Gunter.

540. Diamond, Irving T., Goldberg, Jay M., & Neff, William D. (U. Chicago) Tonal discrimination after ablation of auditory cortex. *J. Neurophysiol.*, 1962, 25, 223-235.—"After bilateral removal of auditory areas AI, AII and Ep, cats were unable to relearn a tonal discrimination in which the neutral signal consisted of tones of two frequencies (800 and 1000 c./sec.) and the avoidance signal of tones of only one of the frequencies (800 c./sec.). The discrimination could be relearned after ablation of most of AI together with all of AII and Ep provided that a small patch of AI and its thalamic connections were spared. The results are discussed in terms of a neural model of the activity of subcortical auditory centers after auditory cortex ablation."—G. Westheimer.

541. Inglis, James. (Queen's U., Canada) Dichotic stimulation, temporal-lobe damage, and the perception and storage of auditory stimuli: A note on Kimura's findings. *Canad. J. Psychol.*, 1962, 16(1), 11-17.—A reinterpretation of Kimura's data (see 36: 4JG56K) on the recognition of digits with dichotic stimulation, following temporal lobectomy to remove epileptogenic foci. A hypothesis is proposed that the impairment is one of auditory storage rather than of perceptual function. Modifications of Kimura's data analysis and possible additional research are discussed.—R. S. Davidson.

542. Isaacson, Robert L., Douglas, Robert J., & Moore, R. Y. (U. Michigan) The effect of radical hippocampal ablation on acquisition of avoidance response. *J. comp. physiol. Psychol.*, 1961, 54, 625-628.—Rats with hippocampal lesions were compared to normal rats and rats with cortical lesions in a shuttle-box situation. Animals were trained for 5 days, with extinction trials preceding shock trials on Days 2 to 5. Operates reached the learning criterion most rapidly; they showed lower latencies in extinction as well as on learning trials.—W. A. Wilson Jr.

543. Kimura, Doreen. (Montreal Neurological Inst., Canada) Perceptual and memory functions of the left temporal lobe: A reply to Dr. Inglis. *Canad. J. Psychol.*, 1962, 16(1), 18-22.—In reply, "Inglis' [see 37: 541] application of the Broadbent model to my data is not a convincing alternative to a perceptual interpretation. Moreover, the feasibility of separating short-term neural events into perceptual and storage systems along the lines suggested by

Broadbent has yet to be demonstrated."—R. S. Davidson.

544. Kruper, Donald C., Patton, Robert A., & Koskoff, Yale David. (U. Pittsburgh) Delayed object-quality discriminations in hemisectomized monkeys. *J. comp. physiol. Psychol.*, 1961, 54, 619-624.—Monkeys were tested on 3-trial object discrimination problems, in which intertrial intervals varied from 20 to 120 sec. Normals performed significantly better than a hemisectomized group on the task as a whole. "It was concluded that the delay variable, at the longest interval at least, interfered with the performance of both groups . . . but that the effect of other intervals was greater on the operated animals."—W. A. Wilson, Jr.

545. McCleary, Robert A. (U. Chicago) Response specificity in the behavioral effects of limbic system lesions in the cat. *J. comp. physiol. Psychol.*, 1961, 54, 605-613.—Cats were trained in 2 avoidance situations: a shuttle-box, which required an active avoidance response, and a food-trough shock situation, which elicited a passive avoidance response. Cats with subcallosal lesions were deficient only in passive avoidance, while cats with cingulate lesions were deficient only in active avoidance. The response-specific effects of these lesions are consistent with the opposing motor effects of stimulation of these structures.—W. A. Wilson, Jr.

546. Meyer, Patricia Morgan. (Ohio State U.) A behavioral analysis of cats with extensive neocortical ablations. *Dissert. Abstr.*, 1961, 21(10), 3174.—Abstract.

547. Nutsbidze, M. A. (Inst. Physiology, Tbilisi, USSR) Rol' gippokampovoi izviliny obrazovaniï vremennykh svyazei. [Role of the hippocampal convolution in the formation of conditioned connections.] *Soobshch. Akad. Nauk Gruz. SSR*, 1961, 27(6), 765-770.—Hippocampal destruction in cats leads postoperatively to the following changes: (a) difficulty in developing "conditioned automatized alimentary reactions," (b) poor expression of previously developed "conditioned automatized alimentary reactions," (c) difficulty in expression of behavioral reactions with change of experimental conditions, and (d) delay in extinction of the orienting reflex. The author concludes that these changes occur as a consequence of weakening of the visual and auditory functions following hippocampal destruction, and that the hippocampus participates in the formation of conditioned connections and in the extinction of the orienting reflex.—I. D. London.

548. Rougeul, A., & Buser, P. Effets de l'élimination transitoire d'une arie primaire sensorielle sur une performance motrice conditionnée chez le chat. [Effects of temporary elimination of one primary sensory area on motor conditioned performance in the cat.] *J. Physiol., Paris*, 1962, 54, 408.—Thermodes were implanted over certain cortical areas, allowing rapid and reversible cooling of the cortex, thus avoiding problems of vicarious function which may occur after lesions. Conditioned responses to light dropped out when the visual cortex was cooled, although auditory stimuli remained effective. The effect is contrasted with those of lesions, and is interpreted as an immediate cortical control of motor action, specific to the modality of the area studied.—C. J. Smith.

549. Skultety, F. Miles. (State U. Iowa) Experimental mutism in dogs. *Arch. Neurol.*, 1962, 6, 235-241.—Electrolytic lesions which involve the transverse extent of the periaqueductal grey matter beneath the superior colliculus resulted in life-long mutism in 3 dogs out of 7. 1 of these mute animals became hyperphagic. 4 Ss were mute for only a few days after the operation. The point is made that, apart from the cat and dog, experimental mutism has not been demonstrated in other species. (20 ref.)—R. Gunter.

550. Smith, Moncrieff H., Salisbury, Robert, & Weinberg, Harold. (U. Washington) The reaction of hypothalamic-hyperphagic rats to stomach preloads. *J. comp. physiol. Psychol.*, 1961, 54, 660-664.—Hypothalamic-hyperphagic rats were compared with sham operates on their reaction to preloads of water, nonnutritive bulk, and hypertonic solutions. When restricted to a 2-hour eating period, the hyperphagic rats ate no more than controls, and ate significantly less after any test procedure. It is suggested that hypothalamic hyperphagia is part of a generalized "exaggerated affective reaction."—W. A. Wilson, Jr.

551. Stamm, J. S., & Pribram, K. H. (Inst. Living) Effects of epileptogenic lesions of inferotemporal cortex on learning and retention in monkeys. *J. comp. physiol. Psychol.*, 1961, 54, 614-618.—Aluminum hydroxide cream was placed over inferotemporal cortex of monkeys, leading to persistent focal paroxysmal discharges beginning 2-3 mo. later. The epileptoid Ss were inferior to normals on visual pattern and object discriminations, but not on delayed alternation. Animals tested for retention of a preoperatively learned discrimination showed only temporary slight drops in proficiency, immediately after operation and again after the onset of discharges. "An epileptogenic focus . . . interferes with the efficient learning of a task but not with the memory for that task."—W. A. Wilson, Jr.

552. Trevarthen, C. B. (Inst. Technology, Pasadena) Double visual learning in split-brain monkeys. *Science*, 1962, 136(3512), 258-259.—Split-brain monkeys (with forebrain divided) were trained to perform 2 contradictory visual tasks simultaneously, 1 task being presented to each eye. Usually 1 cerebral hemisphere dominated, but in some cases the 2 halves of the brain learned simultaneously. Contradictory color discriminations showed interference or transfer of learning until midbrain commissures were also sectioned. The more extensive surgery failed to prevent transfer of simple brightness discriminations.—Journal abstract.

553. Warren, J. M., Warren, Helen B., & Akert, K. (Pennsylvania State U.) Umweg learning by cats with lesions in the prestriate cortex. *J. comp. physiol. Psychol.*, 1961, 54, 629-632.—Normal cats, cats with lesions of prestriate cortex (the middle suprasylvian gyrus), and cats with lesions of orbitofrontal cortex, were tested on the Hebb-Williams maze. The prestriate Ss were inferior to both of the other groups in original learning; both operate groups were inferior to normals in relearning 6 mon. later. Since 2 cats which were trained before prestriate operations showed no postoperate loss, it was suggested that "the prestriate region is necessary for adequate learning of some visual tasks but

less essential for retention of preoperatively learned habits."—*W. A. Wilson, Jr.*

554. Young, J. Z. (University Coll., London, England) **Memory mechanisms of the brain.** *J. ment. Sci.*, 1962, 108(453), 119-133.—Study of brain and behavior in the octopus suggests the possible physical system that constitutes a representation of past events. Animals trained to respond to food and to pain, and then operated, show retention of behaviors toward vertical and horizontal stimuli. A system of superposed circuits, with spreading amplifying and depressing parts to them, provides for a balanced system of motivation and optimizing response to reward.—*W. L. Wilkins.*

BRAIN STIMULATION

555. Rabe, Ausma. (U. Michigan) **The effect of subcortical stimulation on memory and responsiveness in rats.** *Dissert. Abstr.*, 1961, 21(12), 3864-3865.—*Abstract.*

556. Robinson, Bryan W., & Mishkin, Mortimer. (National Inst. Mental Health, Bethesda, Md.) **Alimentary responses evoked from forebrain structures in *Macaca mulatta*.** *Science*, 1962, 136(3512), 260-261.—Previous work on the mechanisms of hunger-satiety in mammals has led to the localization of these functions in the lateral and ventromedial hypothalamic areas. The present work indicates that portions of the frontal lobe, temporal lobe, cingulate gyrus, septum, and thalamus are involved as well.—*Journal abstract.*

557. Samuels, Ina. (U. Michigan) **The effect of electrical stimulation of the thalamus on the performance of rats during visual discrimination.** *Dissert. Abstr.*, 1961, 21, 3865.—*Abstract.*

558. Sheer, Daniel E. (Ed.) **Electrical stimulation of the brain.** Austin, Tex.: Univ. Texas Press, 1961. xiv, 641 p. \$17.50.—A comprehensive review of research and thinking on brain stimulation organized into 7 parts: "Introduction," "Techniques," "Neuroanatomical Correlates," "Neurophysiological Correlates," "Behavioral Correlates," "Experiential Correlates," and "Summary." The more behavioral papers are: "The Reticular Activating System and Perceptual Integration" (D. B. Lindsley), "Differential Effects of Drives and Drugs on Self-Stimulation at Different Brain Sites" (J. Olds), "Food Intake and Hypothalamic Stimulation" (O. A. Smith, Jr.), "Diencephalic Influences on Learning and Performance" (J. R. Knott & W. R. Ingram), "Effects of Hippocampal Afterdischarges on Conditioned Responses" (J. P. Flynn, P. D. MacLean, & C. Kim), "Learning and Performance Motivated by Direct Stimulation of the Brain" (N. E. Miller), "Conditioned Reflexes Formed and Evoked by brain Stimulation" (R. W. Doty), "Motivation-Emotional factors and Intracranial Self-Stimulation" (J. V. Brady), "Emotional Facilitation in Learning Situations with Subcortical Stimulation" (D. E. Sheer), "Interference and Improvement in Performance Produced by Cortical Stimulation" (N. M. Burns & G. J. Mogen-son), "Psychological Effects of Excitation in the Limbic System" (H. E. King), "Implications for Systematic Studies of Behavior" (K. H. Pribram), and "Implications for Theories of Reinforcement" (N. E. Miller). (1500 ref.)—*C. T. Morgan.*

Central Stimulation

559. Aarons, Louis; Masserman, Jules H., & McAvoy, Thomas. (Northwestern U. School Medicine) **Brain stimulation, experience, and behavior.** *Amer. J. Psychiat.*, 1962, 118(11), 982-994.—Electrodes implanted into the brain permitted electrical brain stimulation of 8 rhesus monkeys (4 with brain lesions) and 6 cats. Results showed that "threshold" stimulation of different brain regions had no interference effect on previously established auditory-visual discriminations. Other results obtained do not fit in with the notion of the specificity of brain "centers."—*N. H. Pronko.*

560. Egger, M. David, & Flynn, John P. (Yale U.) **Amygdaloid suppression of hypothalamically elicited attack behavior.** *Science*, 1962, 135(3510), 43-44.—Electrodes were implanted in the hypothalamus and in the amygdala of adult cats. Electrical stimulation of the amygdala suppressed attack behavior elicited by the hypothalamic stimulation.—*Journal abstract.*

561. Faure, J., Bensch, C., Albrecht, C., & Vigneron, G. **Action des formations mésencéphalo-limbiques et habénulaires dans les activités olfactobucco-ano-génito-sexuelle chez la lapin libre et éveillé.** [Action of the midbrain limbic and habenular formations in olfacto-bucco-ano-genito-sexual activities in the unrestrained, waking rabbit.] *J. Physiol., Paris*, 1962, 54, 334-335.—Stimulation of the tegmentum at the pontine-midbrain junction, the interpeduncular region, and the habenular area produces, in the female rabbit, the "post-reaction EEG," and at different stimulation parameters, oral behavior. Stimulation of the habenula at low frequency and voltage induces a posture similar to that adopted for copulation.—*C. J. Smith.*

562. Herberg, L. J. **Physiological drives investigated by means of injections into the cerebral ventricles of the rat.** *Quart. J. exp. Psychol.*, 1962, 14(1), 8-14.—A technique is described for permanently implanting a cannula in the lateral ventricle of the rat, and the effects on certain physiological drives of various substances injected by this route were investigated. Food intake was significantly reduced by intraventricular glucose, while intraventricular fructose, insulin, glucagon, and a lipid-mobilizing agent were without effect. Drinking was elicited by hypertonic saline and suppressed by hypotonic solutions. The intake of salt was not affected by intraventricular low-sodium solutions. Intraventricular procaine, but not alcohol, induced an akinetic state. Intraventricular glucose failed to relieve hypoglycaemic coma. The significance of some of these findings is discussed in relation to the hypothalamic regulation of hunger.—*Journal abstract.*

563. Krauthamer, G. **Inhibition par stimulation répétitive des corps striés de réponses évoquées par stimulation somatique au niveau de la formation réticulée et du thalamus.** [Inhibition by repetitive stimulation of the striatum of responses evoked in the reticular formation and thalamus by somatosensory stimulation.] *J. Physiol., Paris*, 1962, 54, 357-358.—Stimulation of the caudate nucleus or globus pallidus in cats under chloralose suppresses electrical responses, elicited by forepaw shock, in centrum medianum and ventralis lateralis of thalamus, the subthalamic nucleus, and the reticular

formation. This suppression is a true inhibition at some loci and with some stimulation parameters, and possibly an occlusion at others.—C. J. Smith.

564. Michael, Richard P. (Maudsley Hosp., London, England) **Estrogen-sensitive neurons and sexual behavior in female cats.** *Science*, 1962, 136(3513), 322-323.—The stimulation of mating behavior by means of the stereotaxic introduction of small implants of solid C¹⁴-diethylstilbestrol di-n-butyrate to the hypothalamus of ovariectomized cats is described. Autoradiographic examination of the brains of mating animals reveals that certain neurons in the region of these implants show a selective affinity for labeled estrogen.—*Journal abstract*.

565. Wasman, Marvin, & Flynn, John P. (Western Reserve U.) **Directed attack elicited from hypothalamus.** *Arch. Neurol.*, 1962, 6, 208-219.—Directed attack was obtained by hypothalamic stimulation in 15 cats originally selected for not attacking mice. Instances were observed where such stimulation also led to attack without rage, as well as to the occurrence of rage without attack. These behavior forms are related to different anatomical locations.—R. Gunter.

Electroshock

566. Williams, Gertrude J. (Division Health, St. Louis, Mo.) **The effect of electroconvulsive shock on an instrumental conditioned emotional response ("conflict").** *J. comp. physiol. Psychol.*, 1961, 54, 633-637.—Rats were trained to cross an electrified grid to reach water; conflict, measured as hesitation to cross the grid, was shown in no-shock test trials as long as 60 days later. However, a group which received a series of ECSs after the completion of conflict training showed no hesitation on the test trials. It was suggested that the impact of the stimuli associated with conflict is lessened by the increased variety of extraneous stimuli to which convulsed animals respond emotionally.—W. A. Wilson, Jr.

ELECTROENCEPHALOGRAPHY

567. Blozovski, M. **Electrocorticogramme du Lapin nouveau-né** [The electrocorticogram of the newborn rabbit.] *J. Physiol., Paris*, 1962, 54, 296-297.—Records were taken from curarized baby rabbits in a study of EEG development. On the 1st day of life, period of silence and 7/sec activity alternate. The predominant frequencies seen were 8/sec and of life, periods of silence and 7/sec activity alternate. 13-15/sec at 2 days; 10/sec and 18-22/sec at 3-4 days; 3.5/sec and 12/sec on the 8-10th day. The adult pattern emerges at the 15th day.—C. J. Smith.

568. Brazier, Mary A. B. (Ed.) **Computer techniques in EEG analysis.** *EEG clin. Neurophysiol. Suppl.*, 1961, No. 20. 98 p.—Proceedings of a conference sponsored by the Brain Research Institute of California in October 1960. Included are 4 papers on harmonic analysis (R. G. Bickford, W. G. Walter, J. R. Knott, H. G. Shipton), 3 on correlation techniques (J. S. Barlow, W. Storm van Leeuwen, W. R. Adey), 3 on averaging techniques with brain potentials (M. H. Goldstein, A. Remond, G. L. Gerstein), single papers on EEG pattern recognition (B. G. Farley) and digital techniques (W. A. Clark), and summary and commentary by W. G. Walter and W. A. Rosenblith.—L. C. Johnson.

569. Cadilhac, J., Passouant-Fontaine, T., & Passouant, P. **L'organisation des divers stades du sommeil chez le chaton le la naissance à 45 jours.** [Organization of various stages of sleep in the kitten, from birth to 45 days.] *J. Physiol., Paris*, 1962, 54, 305-306.—EEG study of normal sleep in the kitten reveals 4 stages. In the 1st, lasting 10 days, one can distinguish waking and agitated sleep; after the eyes open, a 3rd phase, calm sleep, emerges. From the 20th day on, synchronization of hippocampal EEG activity occurs during agitated sleep; after 40 days, hippocampal synchronization is well established during the waking state.—C. J. Smith.

570. Calvet, J. **Comparaison de l'activité électroencéphalographique dérivée par électrodes de surface et par électrodes transcorticales.** [Comparison of electroencephalographic activity derived from surface electrodes and from transcortical electrodes.] *J. Physiol., Paris*, 1962, 54, 308-309.—It is demonstrated that the usual monopolar EEG recording may falsely indicate activity in a cortical area, the true source lying at some distance from the electrode. Transcortical recording techniques eliminate this source of error, yielding only activity located between the 2 pickup electrodes.—C. J. Smith.

571. Faure, J. **Rôle du mésencéphale dans la phase "paradoxe" du sommeil chez le lapin.** [Role of the midbrain in the paradoxical phase of sleep in the rabbit.] *J. Physiol., Paris*, 1962, 54, 333-334.—Brain stimulation may influence the appearance of the paradoxical phase of sleep (waking-type EEG, loss of muscle tonus, and behavioral signs of sleep) in the rabbit. Stimulation of the tegmentum at the junction of midbrain and pons, and in dorsal and ventral midbrain tegmental nuclei, yields a long paradoxical phase, isolated, or followed by oral-anogenital behavior. Stimulation of central gray or middorsal paramedian tegmentum produces a shorter paradoxical phase followed by the same behavior. Paradoxical sleep depends on a circular pathway involving midbrain, hypothalamus, limbic areas, habenula, and midbrain, connected to the medulla.—C. J. Smith.

572. Genkin, A. A. (Leningrad Neurosurgical Inst.) **O vyyalenii v elektroentsefalogramme spetsificheskoi lokal'noi reaktivnosti mozga pri slozhnoi deyatel'nosti** [On the examination in electroencephalograms of specific local reactions of the brain during complex activity.] *Vop. Psikh.*, 1961, No. 6, 114-126.—This is an attempt to obtain characteristics of particular cortical areas during various mental processes. "34 EEG frames obtained for 5 subjects have been subjected to a quantitative analysis. By considering the correlations between EEG channels (recording from Brodmann areas 39, 37, and 18) it has been found that under certain conditions a specific reaction of particular brain fields under adequate intellectual activity is identified . . . in thinking processes based mainly on visual concepts a local reaction of the visual cortex is quite distinct." Problems involving symbolic manipulations yield reactions of the subsincipital portion. These reactions are reliable under identical experimental conditions but are less apparent when the alpha-rhythm is slightly suppressed.—H. Pick.

573. Horovitz, Zola P., & Chow, May-I. (Squibb Inst. Medical Research, New Brunswick, N. J.) **Desynchronized electroencephalogram in the deeply sleeping cat.** *Science*, 1961, 134(3483), 945.

—Electroencephalographic patterns of the different states of sleep in the cat are shown, with special reference to a desynchronized deep sleep. This sleep stage is characterized by an increase in reticular stimulation arousal threshold and by the reappearance of 5-6 spikes per second on the electroencephalogram immediately after threshold behavioral arousal.—*Journal abstract.*

574. Karp, Eric; Pollack, Max, & Fink, Max. (Hillside Hosp., Glen Oaks, N. Y.) Critical flicker frequency and EEG alpha: A reliability study. *EEG clin. Neurophysiol.*, 1962, 14, 60-63.—Correlations between resting percent time alpha activity and critical flicker frequency threshold were sought in 9 volunteer and 30 psychiatric Ss. Test-retest correlations for each test were high, but intercorrelations were insignificant.—L. C. Johnson.

575. Liberson, W. T., & Frazier, William H. (VA Hosp., Hines, Ill.) Evaluation of EEG patterns of newborn babies. *Amer. J. Psychiat.*, 1962, 118, 1125-1131.—A series of 136 neonates was given EEG examinations within a few hours of birth. Babies with caesarian section had more "ideal" EEGs than those with noncaesarian birth or those with obstetrical complications.—N. H. Pronko.

576. Mangan, G. L., & Adcock, C. J. EEG correlates of perceptual vigilance and defence. *Percept. mot. Skills*, 1962, 14, 197-198.—The findings for 11 Ss trained to a defensive criterion and 10 to a vigilance criterion permit several conclusions. The frontal limits (FI) index measures something which decreases significantly when critical and neutral stimuli are presented to defensive Ss, and when critical but not neutral material is presented to vigilance Ss. Defensive Ss show significant differences from vigilant Ss with neutral and critical stimuli. Since FI is a negative measure of emotionality, it appears that defensive Ss become emotional under test conditions, but that this is less of a specific reaction to critical words than is the case with vigilant Ss.—W. H. Guertin.

577. Verley, R., & Mourek, J. Evolution post-natale de l'amplitude de l'activité électrocorticale. [Postnatal development of the amplitude of electrocortical activity.] *J. Physiol., Paris*, 1962, 54, 427-428.—The development of 8-14/sec EEG activity was followed in young cats and rabbits. The amplitude of these spindles, measured with transcortical electrodes, increases from 15-25 microvolts in the 1st days of life to 400-500 microvolts by one month. Hypotheses about growth in amplitude of cerebral waves are proposed.—C. J. Smith.

578. Williams, Harold L., Granda, Allen M., Jones, Richard C., Lubin, Ardie, & Armington, John C. (Walter Reed Army Medical Center, Washington, D. C.) EEG frequency and finger pulse volume as predictors of reaction time during sleep loss. *EEG clin. Neurophysiol.*, 1962, 14, 64-70.—7 Ss were tested during a baseline period, during 64 hours of sleep loss and during recovery from sleep deprivation to determine the relationship between perceptual motor reaction time, EEG frequency, and finger pulse volume. With sleep loss, the distribution of EEG frequencies became bimodal in 5 Ss alternately showing alpha waves and low amplitude theta waves. During this period, the EEG showed increasing correlation with reaction time. For 2 Ss

whose EEG never showed the theta rhythm there was no relationship between EEG and reaction time. Pulse volume was never as good a predictor of reaction time as was EEG.—L. C. Johnson.

EVOKED POTENTIALS

579. Albe-Fessard, D., Bowsher, D., & Mallart, A. Réponses évoquées dans la formation reticulée bulbaire au niveau du noyau giganto cellulaire d'Olszewski: Rôle de ce noyau dans la transmission vers le centre médian du thalamus des afférences somatiques. [Evoked responses in Olszewski's nucleus gigantocellularis of the bulbar reticular formation: The role of this nucleus in transmission of somatosensory afferent impulses to thalamic nucleus centrum medianum.] *J. Physiol., Paris*, 1962, 54, 271.—A study on cats under chloralose revealed convergence of sensory volleys from different parts of the body on the same cell in reticular nucleus gigantocellularis (GC). Stimulation of this nucleus produced responses in thalamic centrum medianum (CM); cooling of GC blocked somatosensory responses in CM. The authors conclude that most somatosensory information destined for CM passes via GC.—C. J. Smith.

580. Bach y Rita, P. Caractéristiques des activités évoquées dans diverses régions de la rétículo bulbaire et mésentéphalique. [Characteristics of activities evoked in various regions of the bulbar and midbrain reticular formation.] *J. Physiol., Paris*, 1962, 54, 283-284.—Acoustic and somatic responses were mapped throughout the reticular formation in cats under chloralose or curare. Responses with latencies less than 20 msec. were picked up from the entire extent of the reticular formation. A secondary response, often larger than the first, and with a latency of 100-200 msec., was recorded from nuclei pontis and gigantocellularis. A rhythmical afterdischarge was sometimes observed.—C. J. Smith.

581. Bruner, J., & Sindberg, R. Différenciation de deux catégories de projections visuelles non primaires sur le cortex associatif suprasylvien du chat: Influences de la formation réticulée et du cortex visuel. [Differentiation of two categories of nonprimary visual projections on the suprasylvian associative cortex of the cat: Influences of the reticular formation and of the visual cortex.] *J. Physiol., Paris*, 1962, 54, 303.—Visual responses from the associative suprasylvian cortex of the cat under chloralose are divided into those from a well-localized lateral zone, similar to the primary visual response, and others from a medial zone. Distinguishing features of the medial zone are greater sensitivity to 1/sec stimulation, short-latency response to stimulation of midbrain reticular formation, large reaction to electrical stimulation of visual cortex, and response to somatic and acoustic stimuli.—C. J. Smith.

582. Burns, B. Delisle; Heron, W., & Pritchard, R. (McGill U.) Physiological excitation of visual cortex in cat's unanaesthetized isolated forebrain. *J. Neurophysiol.*, 1962, 25, 165-181.—Responses of single neurones in the visual cerebral cortex of the unanaesthetized, isolated cat's forebrain to excitation of the retina with patterned light were studied. Eye movements were prevented. All visual units examined displayed continual activity in the unstimulated preparation. An appropriately lo-

cated change of retinal illumination, produced by movement or flashing of a pattern, would drive these units away from their mean frequency of discharge for a short time. Stationary, continuously illuminated patterns produced no detectable influence upon the behaviour of cortical neurones except at "on" and "off." The behaviour of cortical units was not the same following each of a series of identical retinal stimuli. The mean frequency of discharge per minute of visual units is commonly unaffected by repetitive retinal excitation. Cells that gave "on" responses to patterns in one part of the visual field often gave "off" responses to the same pattern presented in another part of the field. Small cyclical oscillations in the position of retinal patterns provided an extremely efficient way of exciting cortical units. Oscillations of a black-white border (in one line at right angles to the boundary) were most exciting when the amplitude was 50 min. arc and the frequency was 2-4 cps.—G. Westheimer.

583. Crescitelli, Frederick. (U. California, Los Angeles) Some characteristics on on- and off-responses to flashes of colored light in ground squirrel visual system. *J. Neurophysiol.*, 1962, 25, 141-151.—"A wavelength specific effect was noted in the electrical potentials evoked at the visual cortex of the antelope ground squirrel by long flashes of colored light delivered to the contralateral eye. This effect was indicated by the presence of a discontinuity in behavior between 454 m μ and 469 m μ . Responses to 454 m μ and 424 m μ were characterized by large on-components and by off-waves which were one sixth (or less) the size of the on-potentials. Responses to flashes at wavelengths of 469 m μ or longer possessed both on- and off-components which were of about equal magnitude."—G. Westheimer.

584. Deura, Shigeyuki. (Northwestern U.) Long-latency cerebellar responses in cerebellar pedunculi and cortex. *Neurology*, 1961, 11, 940-949.—After the posterior pole of one cerebral hemisphere was ablated, the anterior lobe of that side of the cerebellum and the posterior lobes of both sides were exposed and explored in 28 cats. Stimulations were carried out by concentric or paired silver wire (2 mm. separation) lightly applied to the pial surface of various areas of the cerebral cortex. "Cerebrocerebellar connections indicated by the short-latency responses were more widely distributed than the long-latency ones. Action potentials in response to stimulation of the cerebral cortex were observed in the contralateral lobe anterior, lobulus simplex, tuber vermis, pyramis, lobulus paramedianus, crus I lobulus ansiformis and lobulus parafloccularis. Responses were present in the homolateral lobulus paramedianus occasionally. The short-latency responses were elicited after stimulation of the anterior sigmoid, posterior sigmoid, anterior lateral, anterior suprasylvian, middle suprasylvian and middle ectosylvian gyri. No responses were seen after stimulation of the posterior lateral, posterior suprasylvian, posterior ectosylvian, and posterior sylvian gyri. Thresholds of cerebral stimulation which evoke the cerebellar responses increased after section of the superior, middle and inferior cerebellar pedunculi.—R. Gunter.

585. Fourment, A., & Scherrer, J. Réponses extra-primaires chez le lapin implanté. [Extra-primary responses in the implanted rabbit.] *J.*

Physiol., Paris, 1962, 54, 342-343.—Implanted transcortical electrodes in the motor, somatosensory, and visual areas of the cortex all picked up responses to visual, somatic, and auditory stimuli. These non-primary responses appeared during the vigilant state, and disappeared during arrest reactions, somnolence, or after barbiturates.—C. J. Smith.

586. Frommer, Gabriel P. (Brown U.) Gustatory afferent responses in the thalamus. In Morley R. Kare & Bruce P. Halpern (Eds.), *The physiological and behavioral aspects of taste* (see 37: 256). Pp. 50-59.—". . . the responses to gustatory stimuli may be recorded from the medial extension of the ventral nucleus of the thalamus. The ventral nucleus of the thalamus is the homologue of Rose and Mountcastle's (1952) ventrobasal complex. These responses have properties similar to those observed in many peripheral sites, and the localization of the responsive area is in good agreement with tongue experiments on thalamic lesions resulting in taste deficits."—E. Y. Beeman.

587. Galifret, Y. Evaluation de l'efficience d'une stimulation à partir de réponses unitaires centrales. [Evaluation of the efficacy of a stimulus by means of central unit responses.] *J. Physiol.*, Paris, 1962, 54, 343-344.—A study of single neurons in the pigeon's lateral geniculate nucleus shows that the classical law of frequency of discharge as a function of log intensity of the photic stimulus is incorrect. The empirical function resembles an inverted U. Latency, however, is related logarithmically to stimulus intensity. By plotting the slope of the generator potential of a receptor (e.g., Pacinian corpuscle) as a function of log stimulus, it is seen that the latency of the 1st sensory volley depends on the time required for the generator potential to reach critical voltage.—C. J. Smith.

588. Geisler, C. Daniel, & Rosenblith, Walter A. (Massachusetts Inst. Technology) Average responses to clicks recorded from the human scalp. *J. Acoust. Soc. Amer.*, 1962, 34, 125-127.—"The use of a method of electronic averaging in the detection of electrical responses from human Ss is briefly discussed. The correlation of such data with psychophysical data from the same S is discussed."—A. M. Small, Jr.

589. Hirsch, J. F., Benoit, O., & Hungerford, D. Réponses corticales à longue latence chez l'animal chronique. [Long-latency cortical responses in the chronic animal.] *J. Physiol.*, Paris, 1962, 54, 353.—In cats with implanted electrodes, shocks to the skin on one side produced fluctuating responses on both sides of the brain. The latencies were 30-40 msec., and locations included associative areas, and primary visual, auditory, and somatosensory cortex. When S is resting quietly or sleeping, long-latency responses are found easily; they disappear completely during arousal, either spontaneous or induced by reticular stimulation. Auditory and visual long-latency responses were similar to the somatic type.—C. J. Smith.

590. Lelord, G., & Kummer, J. L. Réponses évoquées au niveau du cortex somatique primaire du chat éveillé libre par des stimulations sonores, alternées avec des stimulations non douloureuses du nerf radial. [Responses evoked in the primary somatosensory cortex of the waking, unrestrained

cat by acoustic stimuli, alternated with painless stimulation of the radial nerve.] *J. Physiol., Paris*, 1962, 54, 368.—Do conditioned responses, normally obtained by paired stimuli, also appear for alternated stimuli? To answer this question, an acoustic beep and a small electric shock to the radial nerve were presented alternately, with intervals varying between 15 sec. and 2 min., and with order randomized. No consistent acoustic responses were seen in somatosensory I for beeps alone; when the stimuli were alternated, responses started to appear. These auditory responses occurred only when the background EEG was characteristic of an alert state.—C. J. Smith.

591. Libouban, S. Mise en évidence au niveau du cortex moteur du rat de réponses évoquées par stimulation somatique. [Demonstration of responses evoked by somatic stimulation recorded from the motor cortex of the rat.] *J. Physiol., Paris*, 1962, 54, 370.—Somatic sensory responses may be found in the frontal pole including the entire extent of the motor cortex in curarized rats under chloralose or thiopentone. All 4 paws and the face converged upon any given spot studied; occlusion was demonstrated with paired shocks to different parts of the body. Stimulation of the pretectal nuclei gives responses very similar to these somatic potentials.—C. J. Smith.

592. Marty, R. Aspects évolutifs des activités sensitivo-sensorielles au cours du développement. [Genetic aspects of sensory activities during development.] *J. Physiol., Paris*, 1962, 54, 373.—An electrophysiological study of postnatal development of cat and rabbit shows that somatosensory responses occur before auditory responses, and that visual activity is the last to appear. Thus electrophysiology confirms behavioral observations.—C. J. Smith.

593. Naquet, R., Denavit, M., & Albe-Fessard, D. Ralentissements et accélérations de l'activité corticale obtenus par refroidissement localisé de la formation réticulée mésencéphalique du chat éveillé. [Slowing and acceleration of cortical activity obtained by localizing cooling of the midbrain reticular formation of the waking cat.] *J. Physiol., Paris*, 1962, 54, 386.—A new method of localized cooling of certain areas of the brain is used to produce local blockade of activity. When the cooling probe is placed in the reticular formation of the curarized cat posterior to stereotaxic level A3, there is bilateral acceleration of EEG activity. Between A3-5, cooling produces ipsilateral slowing of the cortical record. All effects are quite reversible.—C. J. Smith.

594. Rhodes, J. M., Smith, C. J., Lanor, J., & Naquet, R. Nouvelle approche des effets de la stimulation réticulée sur les réponses évoquées de long de la voie visuelle. [A new approach to the effects of reticular stimulation on evoked responses along the visual pathway.] *J. Physiol., Paris*, 1962, 54, 405-406.—Responses to photic stimulation, recorded from the chiasm and optic tract of the unanesthetized cat, are stable both during and between periods of reticular stimulation. Cortical visual responses have a high degree of variability, related to background EEG activity. Significant changes in the cortical response occur as a function of frequency of photic stimulation, and as a consequence of reticular stimulation.—C. J. Smith.

595. Schwartz, Marvin, & Shagass, Charles. (State U. Iowa) Effect of different states of alertness on somatosensory and auditory recovery cycles. *EEG clin. Neurophysiol.*, 1962, 14, 11-20.—Evoked auditory and somatosensory potential and recovery functions were examined in different states of alertness, as defined by the EEG in 3 cats with chronic preparations. Additional observations were made on 7 acutely prepared cats. Consistent results between cats were found for only the somatosensory modality. Both early and late components of somatosensory potentials were reduced during alerting. Cortical recovery consistently shifted between cats and between modalities. With a nonalert EEG there was greater peak recovery. It was concluded that recovery changes are probably not cortical in origin and reflect generalized changes in excitability of the CNS.—L. C. Johnson.

596. Steriade, M., & Demetrescu, M. (Neurological Inst., Bucharest). Reticular facilitation of responses to acoustic stimuli. *EEG clin. Neurophysiol.*, 1962, 14, 21-36.—Responses evoked by single or rhythmic clicks at the level of cortical and subcortical, specific and nonspecific structures, were recorded in 37 encéphale isolé cats. Diminution of acoustic response is not a global event during electrocortical arousal induced by mesencephalic reticular formation stimulation. Simultaneous suppression and facilitation of potentials recorded in the same sensory area were found to a single mono or binaural click. Cortical potentials, evoked by rhythmic clicks, exhibit reticular facilitation. From rates of 5/sec upward reticular facilitation is extended to all recorded areas of the auditory cortex. Reticular stimulation causes responses to recover their initial amplitude after habituation. These results confirm previous data concerning responses to flickering light.—L. C. Johnson.

597. Uttal, W. R., & Cook, L. Systematics of the evoked somatosensory cortical potential. *IBM J. Res. Developm.*, 1962, 6(2), 179-199.—This paper presents the results of a series of experimental studies in which a digital computer averaging technique was used to explore the dynamics of the electric response of the human somatosensory cortex evoked by pulse electrical stimulation of nerves in the wrist. A nomenclature is presented for the typical components of the complex waveform which the authors consider to be representative of the evoked potential. The effects of stimulus amplitude, bilateral and bitemporal stimulation, and sleep on the evoked corticogram were investigated. Psychophysical studies were also carried out which complemented the evoked potential studies, and comparisons were made between the neurological and psychological data.—W. R. Uttal.

SENSORY PHYSIOLOGY

598. Ali, M. A. (U. Montreal) Retinal response in enucleated eyes of atlantic salmon (*Salmo salar*). *Rev. Canad. Biol.*, 1962, 21, 7-15.—Enucleated eyes from light and dark adapted fish were subjected to light and darkness for one hour, fixed in Bouin's, sectioned, and examined. The state of retinal epithelium was not affected by placing it in light or dark. Cone myoids of dark adapted fish remained expanded while those from light adapted eyes became expanded and both were independent of

having been previously in the light or dark. The retina probably dies one hour after enucleation and it is difficult to determine whether the cones of enucleated eyes are capable of responding to light or darkness.—*M. J. Wayner, Jr.*

599. Dawson, William W. (Florida State U.) The corneal afferent system: A deviation from Helmholtz's theory of specific fiber energies. *Dissect. Abstr.*, 1961, 21(12), 3860-3861.—*Abstract.*

600. De Valois, Russell L., Jacobs, Gerald H., & Jones, Arthur E. (Indiana U.) Effects of increments and decrements of light on neural discharge rate. *Science*, 1962, 136(3520), 986-987.—Neurons in the lateral geniculate nucleus of the monkey discharge impulses periodically under conditions of both dark and light adaptation. Brief intensity changes in one direction produce decreases in firing rate roughly proportional to the logarithm of the intensity; intensity changes in the other direction produce corresponding increases in firing in the same neuron.—*Journal abstract.*

601. Dzendolet, E. Electrical stimulation of single human taste papillae. *Percept. mot. Skills*, 1962, 14, 303-317.—2 Ss reported salty taste at near threshold stimulation. Results do not support the hypothesis of direct stimulation of either the receptors or the nerves. Suprathreshold cathodal and anodal stimulation were reported as pain or tactile sensations rather than taste. The order of thresholds at different concentrations of salt suggested that concentration is not the primary variable in taste stimulation. The results suggested that the threshold is a function of the rate at which ions are presented to the receptors.—*W. H. Guertin.*

602. Elenius, V., & Ahlas, A. (U. Turku) The effect of intensity of light adaptation on the recovery in the dark of the human electroretinogram. *Acta ophthalm., Copenhagen*, 1961, 39(6), 1020-1028.—The rate of ERG b-wave recovery was analyzed for one S, using stimulus flashes of 0.1 sec. duration, or flickering light at 30 cps. Following light adaptation with light of about 0.01 mV intensity and of 5 min. duration, a nearly maximal amplitude of the b-wave is obtained after about 10 min. in the dark. After light adaptation with light of about 1 mV intensity, the b-wave has regained about 80% of its maximal amplitude after 6 min. in the dark, and about 90% after about 10 min. If lights more intense than about 1 mV are used for light adaptation, the subsequent dark adaptation is much slower. Stimulation intensities above 1 mV are sufficient to evoke photopic flicker potentials and negative components of the single flash electroretinogram.—*M. S. Katz.*

603. Ercoles, Anna Maria, & Ronchi, Lucia. (Ist. Nazionale Ottica-Arcetri, Florence, Italy) Reliability of the electroretinogram as a response to a light stimulus. *Aerosp. Med.*, 1962, 33, 69-74.—During visual experiments, ERG records were obtained from 3 Ss, either well trained or naive. The shape of the ERGs appeared to vary as a function of the S's experience. The changes occurred independently of either the intensity of the stimulus or the adaptation state of the retina. It was suggested that factors such as "training" and "expectation" may affect the ERG response.—*J. C. G. Loring.*

604. Flanagan, James L., & Bird, Carol M. (Bell Telephone Lab., Murray Hill, N. J.) Minimum

phase response for the basilar membrane. *J. Acoust. Soc. Amer.*, 1962, 34, 114-118.—Appreciable experimental data exist for the amplitude of basilar membrane displacement as a function of sound frequency. Data on the phase of displacement vs. frequency are meager. A digital computer was programmed to calculate: (a) minimum phase functions corresponding to the experimental amplitude vs. frequency responses, (b) inverse Fourier transforms of the experimental amplitude and phase data, and (c) inverse transforms of the experimental amplitude and calculated minimum phase data. The results show that at low frequencies the experimental amplitude and phase data do not seem completely compatible. For several reasons, the phase data seem more likely to include a small imprecision than do the amplitude data.—*A. M. Small, Jr.*

605. Jung, Richard, & Kornhuber, Hans. (Eds.) (U. Freiburg, Germany) *Neurophysiologie und Psychophysik des visuellen Systems*. [The visual system: Neurophysiology and psychophysics.] West Berlin, Germany: Springer, 1961. viii, 524 p. DM 85.—Uniting subjective and objective sensory physiology of the visual system was the goal of a symposium held at Freiburg in the fall of 1961. The papers and discussions of this meeting are collected in the above volume. Emphasis at the symposium was mainly on electrophysiology as well as on research aiming at understanding and explaining the functions and capabilities of the visual system by quantitative comparisons of neural or psychophysiological effects of visual stimuli. The topics covered at the symposium were: (a) the retina, (b) lateral geniculate body, (c) peripheral and central bases of color vision, (d) tectum opticum, (e) the visual cortex, (f) informational value of different neuron types in the visual system, (g) synopsis of subjective and objective sensory physiology of vision.—*K. M. Newman.*

606. Karli, P. Absence des cellules visuelles et fonction photoréceptrice de la rétine chez la souris. [Absence of visual cells and photoreceptive function of the retina in the mouse.] *J. Physiol., Paris*, 1962, 54, 355-356.—A strain of mice in which there is hereditary disappearance of visual photoreceptors and loss of ERG is described. These animals have a pupillary reaction to light, and can learn a visually guided task which, however, disappears if the optic tracts are cut. The spectral sensitivity curve is essentially normal in shape but much less sensitive. Visual purple seems to disappear during degeneration, indicating that a number of problems regarding photosensitivity in these mice have yet to be solved.—*C. J. Smith.*

607. Kitchell, Ralph L. (U. Minnesota) Neural response patterns in taste. In Morley R. Kare & Bruce P. Halpern (Eds.), *The physiological and behavioral aspects of taste* (see 37: 256). Pp. 39-48.—A discussion of "some of the features of the neural responses from a peripheral receptor field . . . [and the] variables which must be considered in obtaining, recording, and interpreting the neural responses."—*E. Y. Beeman.*

608. Knoll, M., Kugler, J., Eichmeier, J., & Hofker, O. Note on the spectroscopy of subjective light patterns. *J. anal. Psychol.*, 1962, 7(1), 55-69.—In a method employing electrodes applied with a strap to the forehead, the authors elicit a wide

range of subjective light patterns, some of which alter their shape during constant excitation. All patterns were of an abstract nature. "The number of subjective patterns excitable in each individual was larger for mental patients than for the healthy control sub-group." It is "probable that, besides the retinal ganglion network, the visual (but not the temporal) cortex or the primary visual pathway participates in the pattern excitation phenomenon." (22 ref., German summary.)—*D. A. Santora.*

609. Lawrence, Merle; Wolsk, David, & Schmidt, Pieter. (U. Michigan) Inner ear response to high-level sounds. *J. Acoust. Soc. Amer.*, 1962, 34, 102-108.—The cochlear ac potentials in response to a stimulating tone of rapidly increasing intensity undergo a rapid reduction in amplitude after reaching a certain maximum. The record seen on the cathode ray screen is indistinguishable from that reported for middle ear muscle action, yet the response described here occurs in the absence of muscles of the entire middle ear. This effect is ascribed to overloading in the inner ear. The rate of rise of a tone makes no difference in the form of the cochlear ac response. This finding suggests that the inner ear behaves the same in the presence of impact noise as it does in the presence of steady-state or slowly rising tones.—*A. M. Small, Jr.*

610. Mallart, A. Sur quelques propriétés des champs récepteurs des cellules du relais thalamique somatique primaire. [Some properties of the receptive fields of cells of the primary somatosensory thalamic relay.] *J. Physiol., Paris*, 1962, 54, 372-373.—Some neurons in nucleus ventralis posterior lateralis of the cat under chloralose respond to stimulation anywhere on a limb, indicating a high degree of convergence. Inhibition (depression of spontaneous activity or of the response to a 2nd stimulus) can be shown by applying a subthreshold stimulus to the center of a receptive field, or by stimulating an adjacent part of the body, and rarely, by stimulating any point on the entire body. Thus there is in the thalamic somatic relay both convergence of excitation, and interference between excitatory and inhibitory inputs.—*C. J. Smith.*

611. Mei, Lei. (Kirov Military-Medical Acad., USSR) O zavisimosti élektricheskoi reaktsii zritel'nogo analizatora ot tsvet svetovogo razdrazheniia. [Electric reaction of the visual analyzer as a function of color of photic stimulation.] *Biophysika*, 1962, 7(2), 218-224.—The electrical reaction of the retina and the initial cortical responses to intense flashes of different hues were studied in pigeons. There is disclosed an intensified initial portion of the electroretinogram (the a-complex) with 6 functional components (a_1 to a_6), which precede the b-wave. The magnitude of the 1st component (a_1) depends on the brightness of the colored stimulus. It is the same for all hues of equal brightness. The character of development of the succeeding components as a whole and the characteristic property of the 2nd component (a_2) are found to depend in particular on the wave-length of the light. The ratio of a_2 to a_1 does not depend on brightness and is always different for different hues. It is concluded that cortical elements react selectively to differently colored signals, sent from the retina.—*I. D. London.*

612. Naka, Ken-Ichi. (Kyushu U. Fukuoka, Japan) Effect of background illumination on the retinal action potential. *Science*, 1962, 136(3519), 877-878.—A study of the relation between the membrane potential and the amplitude of the slow component of the retinal action potential obtained from inside a single insect photoreceptor cell suggests that the slow component is equivalent to the change in the membrane potential caused by background illumination.—*Journal abstract.*

613. Pfaffmann, Carl. (Brown U.) Sensory processes and their relation to behavior: Studies on the sense of taste as a model S-R system. In Sigmund Koch (Ed.), *Psychology: A study of a science. Vol. 4* (see 37: 93). Pp. 380-416.—The historical background of sensory psychology is briefly sketched. The application of electronic instrumentation gave a major impetus to the study of receptor processes, permitting a direct study of the mechanism. Studies of taste and its mechanism of discrimination are reviewed. Classical theories need recasting as 2 or more primary taste stimuli can activate the same sensory-neural units. Gustatory stimulation has important behavioral consequences. Studies on the role of taste in reinforcement are reviewed. (99 ref.)—*E. Y. Beeman.*

614. Ruben, R. J., Fisch, U., & Hudson, W. (Johns Hopkins U.) Properties of the eighth nerve action potential. *J. Acoust. Soc. Amer.*, 1962, 34, 99-102.—"The 8th nerve action potential in the cat was recorded from the round window and from the 8th nerve. The conduction velocity, measured directly and computed from the fiber diameter, was found to be approximately 25 m/sec. Comparison of the onset of the action potential at the round window and its appearance in the eighth nerve showed a delay of 0.3 msec, based upon the theoretical time of transmission according to the conduction velocity. As the stimulus intensity was increased, a decrease in the latency of the action potential of the eighth nerve was noted."—*A. M. Small, Jr.*

615. Trehub, Arnold; Tucker, Irving, & Casavellan, Jane. (VA Hosp., Northampton, Mass.) Epidermal b-waves and changes in basal potentials of the skin. *Amer. J. Psychol.*, 1962, 75(1), 140-143.—In 9 adult Ss "significantly more b-waves (the positive components of the endosomatic GSR) occurred when basal potential shifted in a negative direction than when there was either no basal change or a change in the positive direction. These results support . . . the explanation of skin-potential in terms of polarization and depolarization." The general belief in 2 separately reacting neurophysiological mechanisms to explain the a- and b-wave components is thus unnecessary.—*R. H. Waters.*

616. von Békésy, G. (Harvard U.) Comments of the measurement of the relative size of dc potentials and microphonics in the cochlea. *J. Acoust. Soc. Amer.*, 1962, 34, 124.—It is suggested that because of the complex interaction of generator voltage and shunt and series impedances, investigations to date are not conclusive as to the mechanism of the aural microphonic.—*A. M. Small, Jr.*

617. Wendt, R. Rôle du thalamus et du cortex dans la transmission des afférences somatiques vers l'amygdala chez le chat anesthésié au chloralose. [The role of the thalamus and cortex in

transmission of somatosensory afferent volleys to the amygdala in the cat anesthetized with chloralose.] *J. Physiol., Paris*, 1962, 54, 428-429.—The pathways by which somatosensory impulses arrive at the lateral nucleus of the amygdala have been traced using the technique of temporary blockade by localized cooling of brain tissue. Somatic information travels to the amygdala via ipsilateral somatosensory area II of the cortex.—C. J. Smith.

618. Windelmann, R. K. (Mayo Clinic & Found., Rochester, Minn.) **Cutaneous sensory end organs of some anthropoid apes.** *Science*, 1962, 136(3514), 384-386.—The organized end organs of nerves in glabrous skin of the chimpanzee, orangutan, and gibbon are similar to those of man in form and distribution but are more numerous on the soles of the feet than in man. The author found cholinesterase in all the end organs of all these animals and, in the gibbon, alkaline phosphatase as well.—*Journal abstract.*

ENDOCRINE, BIOCHEMICAL, & CIRCULATORY EFFECTS

619. Beadle, Kathryn R., & Crowell, David. (Dept. Education, Hawaii) **Neonatal electrocardiographic responses to sound: Methodology.** *J. speech hear. Res.*, 1962, 5(2), 112-123.—One full-term, clinically normal, female neonate, 41 hours old, was used to demonstrate the feasibility of utilizing heart rate as a measure of response to sound stimulation. A recordable neonatal electrocardiographic response to sound did occur, but no consistent pattern of response was evident.—M. F. Palmer.

620. Blatt, S. J. (Michael Reese Hosp.) **Patterns of cardiac arousal during complex mental activity.** *J. abnorm. soc. Psychol.*, 1961, 63(2), 272-282.—The purpose of the study was to explore the relationship between cardiac rate, as a measure of autonomic activity, and degree of efficiency in complex mental activity. Following Hebb, it was postulated that motivation to solve problems is accompanied by increased action in the autonomic nervous system; specifically, that efficient problem solving would be accompanied by increased and more variable cardiac activity as compared to nonefficient problem solvers. The results support the hypotheses.—G. Frank.

621. Harlan, William R., Osborne, Robert K., & Graybiel, Ashton. **A longitudinal study of blood pressure.** *USN Sch. Aviat. Med. res. Rep.*, 1962, Proj. MR005.13-3001, Subtask 2, Rep. No. 4. 19 p.—Serial blood pressure determinations have been analyzed in a group of 785 healthy young men followed over an 18-year period. Frequency distribution curves of blood pressure yielded a continuous distribution with a tendency for each individual to maintain his relative ranking in the population during the period of study. Significant relationships could be demonstrated between interval change in blood pressure and weight gain as well as increase in body mass. The increment of blood pressure during the follow-up period was related to somatotype as determined on initial evaluation. A positive family history of vascular disease was associated with a greater increase in blood pressure. Analysis of the characteristics of groups from the upper and lower ends of the frequency distribution curves confirmed the importance of these factors in influencing blood pressure.—*USN SAM.*

622. Heggeness, Franklin W. (U. Rochester School Medicine) **Metabolic factors in food intake and utilization in weanling rats.** In Morley R. Kare & Bruce P. Halpern (Eds.), *The physiological and behavioral aspects of taste* (see 37: 256). Pp. 104-109.—Weanling rats fed high carbohydrate diets showed a metabolic rate "elevated approximately 20 per cent above predicted values for the first week of feeding. The results of further studies of this metabolic response suggest that it is associated with a limited capacity for lipogenesis."—E. Y. Beeman.

623. Heller, J. **The influence of the nervous system on renal function: VI. Changes in renal function in unconditioned and conditioned elevation of bile secretion in the dogs.** *Physiol. Bohemoslov.*, 1961, 10(5), 427-431.—The urine flow, clearance of "endogenous" creatinine, and sodium and potassium excretion were measured in dogs with biliary and ureteral fistulas and a denervated left kidney, during unconditioned and conditioned elevation of bile secretion. No change in renal function occurred during unconditioned elevation of bile secretion induced by the peroral administration of phenylbutylcarbinol. During the conditioned increase in bile secretion, renal function showed a slight decrease which was not statistically significant. Denervation of the kidney had no basic effect.—*Journal abstract.*

624. Heller, J. (Charles U., Prague, Czechoslovakia) **Some changes in the urine and blood of dogs during conditioned water, osmotic and mercury diuresis.** *Physiol. Bohemoslov.*, 1961, 10(6), 510-521.—Conditioned water, osmotic, and mercury diuresis "were elaborated in dogs with ureteral fistulae and a denervated left kidney. . . . In every case polyuria was less and of shorter duration in conditioned diuresis. Conditioned water diuresis differs from unconditioned diuresis by an increase in the sodium, potassium and urea concentration in the urine." Changes in the blood are the same in both diuresis. Conditioned osmotic and mercury diuresis differ from the unconditioned by a reverse change in the urine potassium concentration. "Denervation of the kidney had no effect." The composition of the urine was the same in all 3 conditioned diureses.—E. Y. Beeman.

625. Jakoubek, B. **Changes of the ascorbic acid content in adrenal glands and of locomotor activity during the preparatory reaction.** *Physiol. Bohemoslov.*, 1961, 10(6), 534-541.—Using rats, periods of waiting for nociceptive stimuli were compared with periods of being in a new environment. "During the first 3 conditionings, there is a decrease in ascorbic acid levels during the preparatory period to nociceptive stimulation, as well as to muscular activity; the unconditioned stimulus itself does not cause any further changes in ascorbic acid levels. A similar reduction, however, was observed after 60 min. stay in the conditioning cage only. There is no decrease in ascorbic acid levels during the preparatory period on further conditioning, the decrease is present, however after application of the nociceptive stimulus. When animals are placed in the cage only without any additional stimulation, the decrease persists. Following 14 conditioning sessions the levels of ascorbic acid do not decline either in the course of the preparatory period to nociceptive stimulation or to muscular activity, or after application of nociceptive stimulation. The decrease of ascorbic acid fol-

lowing muscular activity, however, is preserved. From the third conditioning session onwards, a conditioned emotional reaction appears being accompanied by a marked reduction in locomotor activity during the first 10 min. of the preparatory period."—*E. Y. Beeman.*

626. Küppers, Waltraut. (Jugenheim/Bergstr., Tannenstr. 3, Germany) Über eine Methode, Messungsergebnisse der psychogalvanischen Reaktion darzustellen. [A method of representing the measurement results of psychogalvanic skin response.] *Z. exp. angew. Psychol.*, 1961, 8(4), 623-632.—In order to simplify the representation of a complex PGR curve, a quotient was developed consisting of the product between number of directional changes of the curve and the absolute height of the curve in mm. divided by the time in seconds. This quotient allows an easy survey of various practical and diagnostic questions.—*W. J. Koppitz.*

627. Onel, Yusef; Friedman, Arnold P., & Grossman, Jacob. (Columbia U.) Muscle blood flow studies in muscle-contraction headaches. *Neurology*, 1961, 11, 935-939.—"This study was undertaken to determine the effective blood flow in the neck muscles in muscle-contraction headache. . . . The results indicate that, during the type of headache described, the effective (capillary) blood flow in the muscle studied or permeability to Na^{24} is increased. Of the two factors, blood flow probably is more important. The likelihood of muscle ischemia is therefore reduced since muscle contraction headache appears to be associated with increased blood flow."—*R. Gunter.*

628. Seifula, Hk. I. Deistvne adrenokortotropnogo gormona na uslounpefektornuyu deyatel'nost' bel'ikh kr'is. [The action of adrenocorticotrophic hormones on the conditioned reflex activity of white rats.] *Farmakol. Toksikol.*, 1961, 24(3), 267-271.

629. Tepperman, Jay. (State U. New York Upstate Medical Center) Metabolic and taste interactions. In Morley R. Kare & Bruce P. Halpern (Eds.), *The physiological and behavioral aspects of taste* (see 37: 256). Pp. 92-98.—Different patterns of interrelations among taste, metabolism, and nutrition are discussed. Research data is cited to show examples of effects of metabolic changes upon food intake presumably mediated by taste, and effects of taste preferences upon the "metabolic mixture" available and the body's adjustment to it.—*E. Y. Beeman.*

630. Wilcott, R. C. (Western Reserve U.) Effects of partial puncture of the epidermis on skin resistance and skin potential. *Psychol. Rep.*, 1962, 10(1), 27-32.—Results from Shackel's skin-drilling technique suggest that the skin-resistance base level and responses, and skin-potential base level and positive wave of the skin-potential response originate in the region of the stratum lucidum and the granular layer of the epidermis while the negative wave of the skin-potential originates below the granular layer.—*B. J. House.*

PSYCHOPHARMACOLOGY

631. Anastasopoulos, George, & Photiades, Harry. (Aristotle U., Thessaloniki, Greece) Effects of LSD-25 on relatives of schizophrenic patients. *J. ment. Sci.*, 1962, 108, 95-98.—The drug was given to 97 parents, uncles, aunts, and siblings

of patients. Of the 20 families at least 1 parent in 18 showed some pathological intoxication. The parents' siblings showed such pathology only when the related parent himself showed the pathology. From the 44 patients' siblings to whom LSD was given, pathological manifestations were observed in 19.—*W. L. Wilkins.*

632. Anisimova, A. P. Nov'ie dann'ie o vliyani barbamila, Lyuminala i khloragidrata na v'isshuyu deyatel'nost'. [Fresh data on the effect of barbamil luminal, and chloralhydrate on higher nervous activity.] *Farmakol. Toksikol.*, 1961, 24(4), 387-394.

633. Bradley, P. B. (Medical School, Birmingham, England) Diffuse systems of the brain: Physiological and pharmacological mechanisms. *Develpm. Med. child Neurol.*, 1962, 4(1), 49-54.—The effects of drugs (amphetamine, the barbiturates, physostigmine, atropine, and the tranquilizers and hallucinogenic drugs) on the electrical activity of the brain and on behavior are considered. It is suggested that the tranquilizers and the hallucinogenic drugs produce their effects by disturbing the relationship between the sepecific and nonspecific afferent pathways in the brain.—*T. E. Newland.*

634. Briskin, A. I., & Flerov, B. A. Vliyanie kurarepodobn'ikh veshchestv na uclovnorefektornuyu deyatel'nost' bel'ikh kr'is. [The effect of curare-like substances on the conditioned reflex activity of white rats.] *Farmakol. Toksikol.*, 1961, 24(5), 523-529.

635. Chorover, Stephan L. (Massachusetts Inst. Technology) Effects of mescaline sulfate on extinction of conditional avoidance response (CAR). *J. comp. physiol. Psychol.*, 1961, 54, 649-652.—Rats trained to avoid shock in a shuttle-box with a buzzer as CS showed immediate and persistent suppression of avoidance responses following injection of mescaline sulfate, although they showed orienting responses to CS onset. Escape responses and locomotor activity in an open-field test were not affected. The results contrast with the effects of mescaline on classical aversive responses.—*W. A. Wilson, Jr.*

636. Chorover, Stephan Lewis. (New York U.) Effects of mescaline on several behavior patterns in the rat: A psychopharmacological study. *Dissert. Abstr.*, 1961, 22(1), 330.—*Abstract.*

637. Clark, Robert; Jackson, James A., & Brady, Joseph V. Drug effects on lever positioning behavior. *Science*, 1962, 135(3509), 1132-1133.—A technique is described for generating a continuous lever positioning response in the rhesus monkey. The effects of several drugs on this behavior were studied.—*Journal abstract.*

638. Consalvi, Conrad. (Vanderbilt U.) A pharmacological study of electrocortical activity and learning in the rat. *Dissert. Abstr.*, 1961, 22(1), 330-331.—*Abstract.*

639. Delost, P., & Prulhière, N. Résépine et croissance. [Reserpine and growth.] *J. Physiol. Paris*, 1962, 54, 322-323.—A study on female Swiss mice shows that 0.25-1.0 mg/kg/day reserpine depresses growth, as measured both by weight and size. The effect is not a specific one, but is secondary to decreased food intake caused by the drug.—*C. J. Smith.*

640. Feinberg, Irwin. (National Inst. Health, Bethesda, Md.) A comparison of the visual hal-

lucinations in schizophrenia with those induced by mescaline and LSD-25. In Louis West (Ed.), *Hallucinations* (see 37: 1588). Pp. 64-73.—19 schizophrenic patients who had experienced visual hallucinations were given a questionnaire "designed to elicit the essential features of the drug syndromes." The major differences between the visual hallucinations of these patients and those reported to occur in the mescaline-LSD syndrome are: (a) those of schizophrenics appear suddenly, without prodromata; (b) those in schizophrenia "occur in a psychic setting of intense affective need or delusional preoccupation"; (c) schizophrenic hallucinations are usually imposed on a normal visual environment, while drugs produce diffuse distortions of the existing visual world; and (d) "schizophrenic hallucinations are generally seen with the eyes open, drug induced hallucinations are most readily seen with closed eyes or in darkened environment." Possibilities are reviewed concerning the relative rarity of visual hallucinations in schizophrenia.—J. B. Thompson.

641. Ferster, C. B., Appel, J. B., & Hiss, R. A. (Indiana U. Medical Center) The effect of drugs on a fixed-ratio performance suppressed by a pre-time-out stimulus. *J. exp. Anal. Behav.*, 1962, 5(1), 73-88.—"Pecking was reinforced by a fixed-ratio schedule with food, and responses during a red light produced a time out. If the bird did not respond during the red light, the light terminated and the bird could complete the FR schedule of positive reinforcement uninterrupted. . . . In general, the pre-time-out stimulus suppressed responding more when the FR schedule was large than when it was small. The occurrence of the pre-time-out stimulus in the fixed ratio produced FR strain and extreme curvature atypical of normal fixed ratios of this size. Amobarbital, pentobarbital, chlorpromazine, and d-amphetamine injected when the FR performance was strained by the pre-time-out procedure marked increases in responding." (17 ref.)—*Author abstract*.

642. Frankenhaeuser, Marianne, & Järpe, Gundla. Psychophysical reactions to infusions of a mixture of adrenaline and noradrenaline. *Scand. J. Psychol.*, 1962, 3(1), 21-29.—Psychophysiological reactions to a mixture of adrenaline and noradrenaline (average dose $6.99 \pm 6.99 \mu\text{g}/\text{min}$) given as a continuous intravenous drip for periods of about 40 min. were studied in 11 Ss. Control data were obtained from placebo infusions. The catecholamine infusions produced marked subjective and overt symptoms as well as changes in heart rate and blood pressure. These reactions were, on the whole, similar to those produced by infusions of adrenaline only. Time experience was also affected by the catecholamines in that more was retained of the previously perceived time intervals.—*Journal abstract*.

643. Gonzales, R. C., & Ross, Sherman. (Bryn Mawr Coll.) The effects of chlorpromazine on the course of discrimination-reversal learning in the rat. *J. comp. physiol. Psychol.*, 1961, 54, 645-648.—In a Lashley jumping apparatus a series of discrimination reversals was given to rats receiving chlorpromazine injections and to a control group. For half of each group the problem was a visual discrimination; for the remainder a spatial problem was used. Some of the controls, but none of the drug group, adopted rigid position fixations on the visual problem. In both problems, the drug group reached a

lower error-per-reversal asymptote. The possibility that the drug acts upon the disrupting effect of punishment is discussed.—W. A. Wilson, Jr.

644. Gonzales, R. C., & Shepp, Bryan. (Bryn Mawr Coll.) The effects of chlorpromazine on instrumental learning based on conditioned fear. *Canad. J. Psychol.*, 1962, 16(1), 64-71.—Chlorpromazine was administered to 1 of 2 experimental groups of rats from the outset of a series in which light and tone together were paired with shock. No response could terminate the shock. After the training series the CS was presented repeatedly without shock, and an escape response was instrumental in ending the CS. Only the group which had not received the drug gave evidence of learning. Whether the drug impaired "fear conditioning" or reduced acquired fear was tested in a 2nd experiment in which the time of introduction of the drug was varied. When given subsequent to "fear conditioning" chlorpromazine still inhibited learning, evidence that it reduced acquired fear.—R. S. Davidson.

645. Hehman, K. N., Vonderahe, A. R., & Peters, J. J. (Xavier U.) Effect of serotonin on behavior, electrical activity of the brain, and seizure threshold of the newly hatched chick. *Neurology*, 1961, 11, 1011-1016.—Earlier investigators stated that "central pharmacological effects of serotonin are difficult to evaluate because the quantities which cross the blood-brain barrier after parenteral administration are too small to permit chemical detection." The newly hatched chick was selected as the experimental animal because its blood-brain barrier is not yet fully developed. 300 chicks between 2 and 6 days after hatching were used. Low doses of serotonin, injected intraperitoneally, produced ataxia, decreased muscle tone and motor activity, and stupor. Electrical activity increased in amplitude of the slow waves with a diminution to complete elimination of the low-voltage, fast-frequency background activity. Auditory and tactile stimuli evoked an immediate arousal reaction. Depression of the reticular activating system was advanced as the basis for these effects. Higher doses of serotonin produced positive spike potentials, similar to the 14-per-second and 6-per-second positive spike potentials of autonomic epilepsy. In sufficiently high doses, serotonin causes a clonic convulsion which is usually followed by death.—R. Gunter.

646. Hudspeth, W. J., & Thomson, C. K. (San Jose State Coll.) A further study of the facilitative effect of 5-7-diphenyl-1-2-diazadamantan-6-ol (1757 I.S.) on maze learning. *Psychol. Rep.*, 1962, 10(1), 222.—10 rats injected with 1757 I.S. solution 30 sec. after each maze trial made significantly fewer errors than 10 control rats injected with a neutral solution.—B. J. House.

647. Irwin, Samuel. Drug screening and evaluative procedures. *Science*, 1962, 136(3511), 123-128.—Current approaches do not provide the information needed for properly predicting drug effects in man.—*Journal abstract*.

648. Kirkham, J., Goldstone, S., Lhamon, W. T., Boardman, W. K., & Goldfarb, J. L. Effects of alcohol on apparent duration. *Percept. mot. Skills*, 1962, 14, 318.— $\frac{1}{2}$ of the Ss reported that time appeared to "drag" and a depressed affect, while the other $\frac{1}{2}$ reported acceleration and euphoria. It was suggested that Ss with depressed affect also had de-

creased SEP, but the number was too small for statistical treatment. The lack of a consistent effect of alcohol upon time judgment conforms to the finding of Laties and Weiss. Future studies should consider individual tolerance and type of affective response.—*W. H. Guertin.*

649. Kobayashi, Tsukasa. Drug administration to cerebral cortex of freely moving dogs. *Science*, 1962, 135(3509), 1126-1127.—A method is described to implant a permanent indwelling polyethylene tube venting to the surface of the cerebral cortex of the dogs. Morphine, amobarbital, or imipramine was administered through the tube, and behavioral changes were observed in unanesthetized and unrestrained animals. The results are different from those occurring after intraventricular injection.—*Journal abstract.*

650. Krus, D. M., & Wapner, S. Effect of LSD on pace of performing a variety of tasks. *Percept. mot. Skills*, 1962, 14, 255-259.—The effect of LSD on the pace of performing 6 routine tasks was assessed in a group of 12 males and 12 females. It was found that, under LSD, pace of card "dealing," handwriting, and addition was slower in comparison to a placebo condition; pace of tapping and of drawing lines alternately over and under a series of dots were not significantly different under LSD as compared to placebo. Significant interactions of sequence by conditions were found in 5 of the 6 conditions. This latter result was discussed as reflecting the influence of cognitive attitudes and expectancies on speed of performance.—*W. H. Guertin.*

651. McDonald, R. L., & Gynther, M. D. (Medical Coll. South Carolina) Effects of verbal stimuli on autonomic responsivity of medicated and nonmedicated schizophrenics and character disorders. *J. gen. Psychol.*, 1962, 66, 287-299.—The purpose of this study was to assess the differential effects of compazine and equanil on the heart rate, PGR reactivity and recovery time, and respiratory reactivity of schizophrenics and character disorders under emotion-provoking stimulus conditions. 36 white male hospitalized patients, $\frac{1}{2}$ schizophrenic, $\frac{1}{2}$ character disorders, were randomly divided into nonmedicated, equanil, and compazine groups. Medicated patients received standard dosages (equanil-400 mg. tid; compazine-10 mg. tid) for 3-4 days prior to testing. Stimuli were 12 incomplete sentences, selected to represent conflict areas for these diagnostic categories. The results generally supported the hypothesis that compazine reduces the intensity of ANS reaction to anxiety-provoking stimuli more effectively than equanil; but the verbal stimuli did not elicit the differential physiological reactivity between schizophrenics and character disorders presumably associated with mother relations, guilt feelings, authority figures, and the early family constellation.—*Author abstract.*

652. McGeer, Patrick L. (U. British Columbia) Mind, drugs and behavior. *Amer. Scientist*, 1962, 50, 322-338.—A discussion of recent advances in neurophysiology, neuropharmacological studies, and neurochemical investigations indicates their significance in the growing concepts of mind-brain relationships. Although discoveries in these fields give little insight into how creative thinking and decision making occur in the brain, they do give an inkling of how the motivations for such things are provided,

and how they may be modified. (18 ref.)—*M. Benton.*

653. Malitz, Sidney; Wilkens, Bernard, & Esecover, Harold. (Columbia U.) A comparison of drug-induced hallucinations with those seen in spontaneously occurring psychoses. In Louis West (Ed.), *Hallucinations* (see 37: 1588). Pp. 50-61.—100 chronic schizophrenics showed a 50% incidence of auditory hallucinations and 9% incidence of visual hallucinations. These hallucinations could often be classified as having a positive or negative adaptive value. 86 nonhallucinating patients and volunteers were given LSD, MLD, and ALD. The predominant hallucinatory response was visual, predominantly abstract images. "Use of Phenothiazine blocking agents was associated with a transient increase in restlessness . . . [and] with intensified visual hallucinations . . . symbolic of the affect produced by the unpleasantness of the experience."—*J. B. Thompson.*

654. Marrazzi, Amedeo S. (U. Pittsburgh) Pharmacodynamics of hallucination. In Louis West (Ed.), *Hallucinations* (see 37: 1588). Pp. 36-49.—A review of some experimental data in support of the hypothesis that exogenous and endogenous hallucinogens act by means of synaptic inhibition. It is suggested that this inhibition may result in the dissociation of the primary receiving area and the association area for a given sense modality and consequent "failure of adequate reality checking." (21 ref.)—*J. B. Thompson.*

655. Mirsky, A. F., & Cardon P. V. (National Inst. Health, Bethesda, Md.) A comparison of the behavioral and physiological changes accompanying sleep deprivation and chlorpromazine administration in man. *EEG clin. Neurophysiol.*, 1962, 14, 1-10.—Attentive behavior and changes in EEG, finger plethysmogram, and respiration were studied simultaneously in 8 normal Ss under the influence of sleep loss or chlorpromazine. Both sleep deprivation and chlorpromazine produced marked impairment in performance. Errors in the sleep deprivation condition were associated with slowing of EEG, increased respiratory cycle length and increased finger pulse amplitude. In the chlorpromazine condition, physiological accompaniments of performance were less marked. EEG appeared to be the least accurate physiological measure in reflecting variations in alertness.—*L. C. Johnson.*

656. Nash, Harvey. (Northwestern U.) Psychological effects of amphetamines and barbiturates. *J. nerv. ment. Dis.*, 1962, 134(3), 203-217.—240 male inmates of a penitentiary served as Ss in a double-blind experiment to determine the effect of amphetamines and barbiturates on intellectual tasks. It was found that "amphetamines exert rather uniformly positive effects on a wide range of measures." There was an easier flow of associations under barbiturates but the dose was too small to effect statistically significant results.—*N. H. Pronko.*

657. Segal, Evalyn F. (Walter Reed Army Inst. Research) Effects of dl-amphetamine under concurrent VI DRL reinforcement. *J. exp. Anal. Behav.*, 1962, 5(1), 105-112.—Three adult, food-deprived rats were given IP injections of dl-amphetamine sulfate under DRL and concurrent VI DRL reinforcement schedules. . . . These results

imply that the primary behavioral effect of di-amphetamine was a motor excitatory one. The drug's disruption of timing behavior was not due to a derangement of internal timing mechanisms, nor to interference with the topography or pattern of behavior. Rather, it might be a secondary result of the accelerated emission of overt behavior patterns mediating the temporal spacing of DRL bar presses." (30 ref.)—*Author abstract*.

658. Shteinberg, A. D. Vliyanie snotvorn'ikh i ikh kombinatsy s pentaminom na vneshnee tormozhenie uslovnikh polozhntel'n'ikh pishchev'ikh refleksov. [The effect of somniferous agents and their combinations with pentamine, a ganglioblocking preparation, on the external application of positive conditioned alimentary reflexes.] *Farmakol. Toksikol.*, 1961, 24(4), 397-403.

659. Singer, Jerome Everett. (U. Minnesota) The effects of epinephrine, chlorpromazine, and dibenzylamine upon the flight responses of rats under stress and non-stress conditions. *Dissert. Abstr.*, 1961, 22(1), 318-319.—*Abstract*.

660. Singh, S. D. Effects of stimulant and depressant drugs on physical persistence. *Percept. mot. Skills*, 1962, 14, 270.—The effects of a stimulant and a depressant on Ss' persistence on a physical task. The depressant significantly increased and the stimulant slightly decreased persistence scores as measured by holding a hand dynamometer.—*W. H. Guertin*.

661. Singh, S. D., & Singh, V. The effect of stimulant and depressant drugs on the latency of autokinetic illusion. *Acta psychol., Amsterdam*, 1961, 18(5), 354-359.—Stimulant, depressant, and placebo treatments were administered to 30 students, who, after 1 hour, were tested for autokinetic latency. The latency was significantly decreased by the depressant drug, and increased by the excitant drug. The results support the cortical satiation theory of autokinetic illusion. Only the effect of the depressant drug was found to be positively and significantly correlated with the extraversion scores of the Maudsley Personality Inventory.—*G. Rubin-Rabson*.

662. Sinitsin, L. N. Vliyanie anal'getikov na reaktivn'ie potentsnal'i afferentn'ikh sistem golovnogo mozga. [The effect of analgetics on reactive potentials of afferent systems of the brain.] *Farmakol. Toksikol.*, 1961, 24(3), 259-267.

663. Steiner, W. G., & Himwich, H. E. (Thudichum Psychiatric Research Lab.) Central cholinolytic action of chlorpromazine. *Science*, 1962, 136(3519), 873-874.—Chlorpromazine was found to have an antagonistic action against the electroencephalographic (EEG) alerting produced in rabbits by cholinergic agents, particularly eserine salicylate and acetylcholine chloride. This cholinolytic action occurs at a preoptine, precolicular level where adrenergic agents fail to elicit EEG alerting. These results emphasize the importance of cholinergic mechanisms in EEG alerting.—*Journal abstract*.

664. Uhr, L., Clay, Margaret; Platz, A., Miller, J. G., & Kelley, E. L. (U. Michigan) Effects of meprobamate and prochlorperazine on positive and negative conditioning. *J. abnorm. soc. Psychol.*, 1961, 63(3), 546-551.—The comparative effect of 2 tranquilizing drugs (miltown and thorazine) upon conditioning in normal adults was investigated.

Conditioning involved GSR to a noxious (shock) and positive (sexually stimulating picture) stimulus. Both tranquilizers were observed to be ineffective in affecting classical conditioning procedures when the noxious UCS was used. Only miltown effected conditioning in the predicted direction when the positive UCS was used. The results are related to the differential effect of each tranquilizer upon the nervous system.—*G. Frank*.

665. Waller, Marcus B., & Waller, Patricia F. (Roscoe B. Jackson Memorial Lab.) Effects of chlorpromazine on appetitive and aversive components of a multiple schedule. *J. exp. Anal. Behav.*, 1962, 5(2), 259.—"A multiple schedule having both an appetitive and an avoidance component was maintained in two dogs to create a complex behavioral base line for observing the effects of chlorpromazine. Both soluble and 'Spansule' chlorpromazine generated similar functions relating drug dose to measures of behavioral output. . . . There was no evidence that chlorpromazine had a differential depressing effect as a function of type of reinforcement. . . . These results are discussed with reference to some of the logical and experimental difficulties inherent in making comparisons across components of a multiple schedule and across schedules in general."—*Author abstract*.

666. Weiss, Arthur J., Mancall, Elliott L., Koltes, John A., White, Joseph C., & Jackson, Laird G. (Jefferson Medical College Hosp., Philadelphia, Pa.) Dimethylacetamide: a hitherto unrecognized hallucinogenic agent. *Science*, 1962, 136(3511), 151-152.—Dimethylacetamide in large doses was found to be a potent hallucinogenic drug in the human. Characteristic electroencephalographic changes accompanied the clinical abnormalities.—*Journal abstract*.

667. Weiss, Bernard, & Laties, Victor G. (Johns Hopkins U.) Enhancement of human performance by caffeine and the amphetamines. *Pharmacol. Rev.*, 1962, 14, 1-36.—The relevant literature is reviewed under the following headings: physical endurance and capacity, motor coordination and control, monitoring, learning, simple and complex verbal and arithmetic tasks. The effects on mood and judgment are also surveyed. The authors' discussion takes up 2 main issues: (a) Can caffeine and the amphetamines actually produce superior performance or do they merely restore to a normal level performance degraded by fatigue, boredom, or other influences? (b) Are the performance-enhancing effects of these drugs counterbalanced by untoward effects to such an extent that their practical use is not feasible or desirable? (118 ref.)—*Author abstract*.

668. Wendt, G. R., Cameron, Jean S., & Specht, Priscilla G. (U. Rochester) Chemical studies of behavior: VI. Placebo and dramamine as methodological controls, and effects on moods, emotions and motivations. *J. Psychol.*, 1962, 53(2), 257-279.—Changes in moods, emotions and motivations after drug and placebo were obtained by use of Adjective Check Lists in 4 studies (total N = 112). Placebo effects were successfully eliminated and the random character of the changes in 130 adjectives was shown by $r = -.07$ to $+.05$ for the correlation of the changes between repeat administrations of placebo. Changes after dramamine in 6

determinations were pronounced and consistent, indicated by $r = +.92$ between the changes in 130 adjectives on repeat administrations of the drug. Dramamine was sedative at 100 mg., tranquilizing at 50. —*Author abstract.*

669. Wenzel, Bernice M. (U. California, Los Angeles) Changes in heart rate associated with responses based on positive and negative reinforcement. *J. comp. physiol. Psychol.*, 1961, 54, 638-644.—Cats were trained to press the appropriate bar for food or to avoid shock, using 2 tones as CSs; heart rate (HR) increased during the food CS and decreased during the shock CS. These HR responses to tone were not found outside of the experimental situation. The effects of reserpine were to reduce the HR response to the food CS, and to diminish the bar-press response to the shock CS. "Either reserpine . . . interrupts whatever mechanism intervenes between the heart and the skeletal musculature, or . . . classically conditioned changes in HR do not mediate instrumental avoidance responses."—*W. A. Wilson, Jr.*

670. Zakirov, U. B. Vliyanie melerazina na uslovnoreflektornuyu deyatelnost'. [The effect of camazine on the conditioned reflex activity.] *Farmakol. Toksikol.*, 1961, 24(3), 271-275.

ENVIRONMENTAL EFFECTS

671. Cronholm, Börje; Eriksson, Ingrid, & Lindgren, S. Åke. (Karolinska Sjukhuset, Stockholm, Sweden) Memory and concentration performances after protracted occupational exposure to carbon monoxide. *Acta psychiat. Scand., Copenhagen*, 1961, 37(2), 127-142.—"The test battery comprised three memory tests: the 30 word pair, the 30 figure and the 30 personal data tests, a cancellation test, and a Swedish modification of the Wechsler-Bellevue Intelligence scale, the CVB scale. The level of exposure of the workers was rather low. In 22 cases it was relatively high, in 38 cases relatively low, and in the remaining 44 cases that could be paired off with workers with another type of shift work only, it was varying. There were no significant differences in the memory tests or the cancellation tests between exposed and non-exposed groups. The only significant difference found was that the IQ was significantly lower in the exposed group of shift workers than in the non-exposed group of day workers. The same difference was found, however, when 24 non-exposed shift workers were paired off and compared with as many non-exposed day workers."—*R. Kaelbing.*

672. Reynolds, Herbert H., Grunzke, Marvin E., & Rohles, Frederick H., Jr. The effects of exposure to simulated launch and re-entry profiles on chimpanzee performance. *USAF ARL tech. docum. Rep.*, 1962, No. 62-1. 15 p.—5 chimpanzees trained to perform a continuous avoidance task were exposed to the acceleration profiles simulating the conditions of launch and re-entry which exist when a capsule is placed into orbit. Performance during launch and re-entry differed from the base-line period which immediately preceded each of the 3 launches. However, performance immediately following launch and re-entry indicated that the animals recovered rapidly and tolerated the insults well.—*USAF ARL.*

Radiation

673. Arbit, Jack. (Northwestern U. Medical School) Emotionality and avoidance conditioning to X radiation. *J. comp. physiol. Psychol.*, 1961, 54, 653-657.—The preference of rats for a black box or a white box was measured before and after the animals received training trials consisting of confinement to the black box paired with X irradiation, and confinement to the white box without irradiation. Emotionally reactive animals spent less time in the black box than nonreactive animals before training, and only reactive animals showed a decrease in black box preference after irradiation. It was concluded that radiation produces an increment to the inherent drive level.—*W. A. Wilson, Jr.*

674. Furchtgott, E. (U. Tennessee) Comment on "Prenatal Anoxia and Irradiation: Maternal-Fetal Relations." *Psychol. Rep.*, 1962, 10(1), 115-118.—Experimental evidence is reviewed which fails to support Meier's hypothesis that the previously reported behavioral changes in prenatally irradiated rats are due to secondary effects.—*B. J. House.*

675. Levinson, B. (U. Buffalo) Comment on Meier's "Prenatal Anoxia and Irradiation: Maternal-Fetal Relations." *Psychol. Rep.*, 1962, 10(1), 173-174.—A discussion of evidence relevant to Meier's theory of maternal influence in radiation damage.—*B. J. House.*

676. Scarborough, Barron B., & Addison, Robert G. (Florida State U.) Conditioning in fish: Effects of X-radiation. *Science*, 1962, 136(3517), 712-713.—Fish were subjected to different levels of high intensity X radiation to ascertain the effects of X rays on acquisition and retention of conditioning. Lethal dosages were also determined. Light was the conditioned stimulus, and electric shock the unconditioned stimulus. Responses were forward darting and backward swimming movements accompanied by increased gill movement. Acquisition of conditioned responses was suppressed by higher dose levels.—*Journal abstract.*

677. Weckin, Stanley; Elder, Riley F., Jr., & Furchtgott, Ernest. (U. Tennessee) Motor performance in the rat as a function of age and prenatal X irradiation. *J. comp. physiol. Psychol.*, 1961, 54, 658-659.—Ability to climb an inclined plane was studied in rats of 4, 15, or 20 months of age. Age was inversely related to climbing ability, and rats that had been irradiated in utero were inferior to controls, but the interaction was not significant.—*W. A. Wilson, Jr.*

Stress

678. Aiken, L. R., Jr. (U. North Carolina) Stress and anxiety as homomorphisms. *Psychol. Rec.*, 1961, 11, 365-372.—An outline of a proposal to define stress reactions in terms of physicochemical, motor, and ideational components. The term "stressors" is given to those stimuli or patterns thereof "which are reliably and contiguously precedent" to the above reactions for any given organism. Stress is a 2nd-order concept applied to stressor-stress reaction sequences. Anxiety is considered as a variety of stress with the term "anxior" for stimulus and "anxiety reaction" for response. Programs of research should proceed toward the end of adequately delimiting these concepts within the proposed context.—*R. J. Seidel.*

679. Bharucha-Reid, Rodabe P. (U. Oregon) **The internal modulating system and stress: A neurophysiological model.** *J. gen. Psychol.*, 1962, 66, 147-158.—This deals critically with theories and experiments relating to disorganization-organization effects of stress (sensory deprivation) and emotions. The hypothesis is presented that whether an emotional state, or stress, eventuates in disorganized or organized behavior will depend on the role of an internal modulating system (IMS). The IMS is described within the framework of a neurophysiological "model" which shows (a) how disorganization-organization can take place either within a specific sense modality or in general; (b) how between individuals and within individuals, differences to stress stimuli may be explained on the basis of threshold, change, and rate of change of stimulation and the nonlinear relationship between stress and disorganization; (c) how stress may replicate the action of pharmaceutical anesthetics so that stress operates as a "behavioral anesthetic" and the blockage of input is either partial or complete; and (d) the psychophysiological data that the brain stem and thalamic reticular system prepotency is responsible for organized and disorganized behavior, respectively.—*Author abstract.*

NUTRITION

GENETICS & BEHAVIOR

680. David, Paul R., & Snyder, Laurence H. (U. Oklahoma) **Some interrelations between psychology and genetics.** In Sigmund Koch (Ed.), *Psychology: A study of a science. Vol. 4* (see 37: 93). Pp. 1-50.—After presenting an introduction to the scope of genetics and the principles of gene action the essay discusses the interrelations of genetics and differential, abnormal, and comparative psychology, summarizing relevant research. Methodological aspects are discussed with the suggestion that a major rapprochement can be made between genetics and abnormal psychology by shifting the focus to the family rather than the individual as a unit of study. (212 ref.)—*E. Y. Beeman.*

681. Dunn, L. C. (Columbia U.) **Cross currents in the history of human genetics.** *Amer. J. hum. Genet.*, 1962, 174(1), 1-13.—In this historical review the connections between eugenics and human genetics are traced. Eugenics as conceived by Galton emphasized positive traits, but soon the movement became more concerned with mental deficiency and other types of (undesirable) abnormalities. Lack of understanding of the implications of Mendel's work led to a split between "Mendelians" and "Biometricians." Modern eugenic proposals such as those of H. J. Muller are still to be viewed with caution and scepticism. While the biometrical tradition is merging with the main stream of human genetics, the possibilities for sound social action based on knowledge of human genetics are still limited, and recent experiences in Germany show the risks of legislative ventures into eugenics.—*S. G. Vandenberg.*

682. McClearn, Gerald D. (U. California, Berkeley) **Genotype and mouse activity.** *J. comp. physiol. Psychol.*, 1961, 54, 674-676.—"Mice of the C57BL/Crgl and A/Crgl inbred strains, and of the F₁, F₂, and backcross generations derived from these

strains were tested for locomotor activity. A clear relationship is shown between activity and the percentage of C57BL genes present. Estimates are made of the degree of genetic determination of the F₂ variance, and dominance, preponderantly in the direction of higher activity, is shown."—*W. A. Wilson, Jr.*

683. McGauch, J. L., Jennings, R. D., & Thomson, C. W. (San Jose State Coll.) **Effect of distribution of practice on the maze learning of descendants of the Tryon maze bright and maze dull strains.** *Psychol. Rep.*, 1962, 10(1), 147-150.—"Rats from the Tryon S₁ (maze bright) and S₈ (maze dull) strains were given five rewarded trials in a Lashley III alley maze. Different sub-groups were trained with inter-trial intervals of 30 sec., 5 min. or 1 day. The S₈ Ss were inferior to the S₁ Ss only in the 30-sec. inter-trial interval condition." Results are discussed in terms of neural consolidation.—*B. J. House.*

684. Sheba, C., Ashkenazi, I., & Szeinberg, Aryeh. (Government Hosp., Tel Hashomer, Israel) **Taste sensitivity to phenylthiourea among the Jewish population groups in Israel.** *Amer. J. hum. Genet.*, 1962, 14(1), 44-50.—Taste thresholds for phenylthiourea were measured in several Jewish communities in Israel. The total number of Ss examined was 1687. The highest frequencies of nontasters were found among 41 Jews from Cochín (31%) and 41 from the Island of Gerba on the Tunisian coast of the Mediterranean (41%). A close similarity of taste distribution was observed among 213 females from Eastern Europe (Ashkenazic); 60 from the Balkan countries (non-Ashkenazic); 65 from Kurdistan; 169 from Iraq and Persia; 166 from Algeria, Tunisia, Morocco and Tripolitania; and 129 from Yemen (15%-20% of nontasters). Significant differences were found between 227 European males (21%-27% of nontasters) and those from North Africa (n = 174), Iraq and Persia (n = 169, 11%-13% of nontasters).—*S. G. Vandenberg.*

685. Sutton, H. E., Vandenberg, S. G., & Clark, P. J. (U. Michigan) **The hereditary abilities study: Selection of twins, diagnosis of zygosity and program of measurements.** *Amer. J. hum. Genet.*, 1962, 14(1), 52-63.—The organization of a study of 45 pairs of identical and 37 pairs of fraternal twins is described. 6 blood group systems, tested by 12 antisera, were used to establish the twin zygosity. Separate papers will report on the results of anthropometric traits, biochemical measures, cardiovascular studies, ophthalmologic studies, and psychological studies. The blood test results are reported in a table, with the probability of monozygosity for each twin pair.—*S. G. Vandenberg.*

686. Vanderpool, D. L., & Davis, R. T. (U. South Dakota) **Differences in spontaneous behavior among inbred strains of mice.** *Psychol. Rep.*, 1962, 10(1), 123-130.—A method is described for recording spontaneous behavior in terms of pre-selected categories in a device which lessen peripheral stimulation. Data were obtained from 5 Ss from each of 3 strains of mice. Strain differences were found in behavior described as inanimate-object-directed, food-directed, water-directed, olfactory survey, and miscellaneous.—*B. J. House.*

687. Winchester, A. M. (Stetson U.) **Heredity and your life.** New York: Dover, 1960. xii,

333 p. \$1.45 (paper).—A paperback edition of the 1960 revised edition. The 1st edition was published in 1956. 3 chapters ("Nature and Nurture," Heredity and Intelligence," and "Mental Disorders") discuss the more psychologically oriented questions.—*E. Y. Beeman.*

LATERAL DOMINANCE

688. Ghent, Lila. (George Washington U.) Developmental changes in tactual thresholds on dominant and nondominant sides. *J. comp. physiol. Psychol.*, 1961, 54, 670-673.—Pressure sensitivity on the thumb was measured in 108 children from 5 to 11 years of age. Girls had greater sensitivity on the dominant hand at the age of 5, but thereafter the opposite (adult) pattern appeared. For boys, the adult pattern appeared at 11 years; for younger groups, there were no laterality differences. Possible sex differences in perception are discussed.—*W. A. Wilson, Jr.*

689. Weinstein, Sidney, & Sersen, Eugene A. (Albert Einstein Coll. Medicine) Tactual sensitivity as a function of handedness and laterality. *J. comp. physiol. Psychol.*, 1961, 54, 665-669.—Pressure sensitivity of the palms, soles, and forearms was tested in 136 Ss. A majority had greater sensitivity on the left side than on the right, principally among the right-handed Ss. A tendency for the right side to be more sensitive appeared among left-handed Ss with a familial history of sinistrality, especially if the mother was left-handed. Theories of cerebral dominance are discussed.—*W. A. Wilson, Jr.*

ANIMAL PSYCHOLOGY

690. Bliss, Eugene L. (Ed.) *Roots of behavior: Genetics, instinct, and socialization in animal behavior.* New York: Harper, 1962. xi, 339 p. \$16.00.—31 authors contributed to this text of animal behavior. Part I deals with the genetics of behavior, presenting research with many different species. "Part II is devoted to analysis of drive states and instinctual behavior." Sexual, maternal, aggressive, and emotional behaviors are among those considered. Part III is concerned with early experience, including imprinting, infantile stimulation, and social development. "Part IV is devoted to studies of animals as members of groups and societies."—*E. Y. Beeman.*

691. Moment, G. B. (Goucher Coll.) Reflexive selection: A possible answer to an old puzzle. *Science*, 1962, 136(3512), 262-263.—With the color vision and learning abilities of birds and telosts now proved, it appears possible that the hitherto puzzling massive variation in color and pattern of certain species, distributed through at least 5 phyla, is not the result of the mere free play of mutation but represents a protective variation and is the product of what may be called reflexive selection.—*Journal abstract.*

NATURAL OBSERVATION

692. Reese, Ellen P., & Reese, T. W. (Mount Holyoke Coll.) The quail, *Coturnix coturnix*, as a laboratory animal. *J. exp. Anal. Behav.*, 1962, 5(2), 265-270.—Presents a general description of this quail with some experimental findings and concludes that "we believe that *C. coturnix* should prove

a useful experimental animal for comparative studies, for basic research in learning, motivation, and perhaps social behavior, and for teaching the analysis of behavior in demonstrations and laboratory courses."—*J. Arbit.*

693. Yuen, Heeny S. H. (United States Dept. Interior, Honolulu) Bow wave riding of dolphins. *Science*, 1961, 134(3484), 1011-1012.—Dolphins riding bow waves were observed through underwater viewing ports. The postures assumed by the dolphins show that they present their bodies rather than the ventral surfaces of their flukes to the propellant forces of the bow wave.—*Journal abstract.*

EARLY EXPERIENCE (INCLUDING IMPRINTING)

694. Amsel, Abram, & Penick, Elizabeth C. (U. Toronto) The influence of early experience on the frustration effect. *J. exp. Psychol.*, 1962, 63(2), 167-176.—3 variables were manipulated from the birth of 40 hooded rats until the time of testing in a double-runway apparatus: size of litter in which raised, differential frustrative-feeding procedures in a feeding apparatus discriminable from the home environment, and no-food-present vs. food-present-but-inaccessible in the 1st goal box of the runway on nonreward trials. The results are discussed in terms of previous findings and hypotheses regarding the frustration effect.—*J. Arbit.*

695. Bambridge, R. (Queen's U., Kingston, Ontario) Early experience and sexual behavior in the domestic chicken. *Science*, 1962, 136(3512), 259-260.—Newly hatched chickens were imprinted to 1 of 2 moving objects. From the 5th day of life on, the chickens were injected with male sex hormone. When later presented with a choice between the 2 objects, they addressed induced sexual responses to the object to which they were imprinted.—*Journal abstract.*

696. Denenberg, Victor H., & Karas, George G. (Purdue U.) Interactive effects of infantile and adult experiences upon weight gain and mortality in the rat. *J. comp. physiol. Psychol.*, 1961, 54, 685-689.—The effects of infantile handling and adult avoidance training upon body weight and susceptibility to starvation were studied. Handling in the first 20 days of life led to lower weight at 21 days of age; weight at 69 days was a complex function of amount of handling and adult experience. Avoidance learning reduced survival time, but to a lesser extent for rats which had been handled in infancy.—*W. A. Wilson, Jr.*

697. Denenberg, Victor H., Morton, John R. C., Kline, Ned J., & Grotta, Lee J. (Purdue U.) Effects of duration of infantile stimulation upon emotionality. *Canad. J. Psychol.*, 1962, 16(1), 72-76.—With the assumption that infantile handling is stress-producing and tends to reduce responsiveness to later stressful situations, it was hypothesized that "emotionality" in adult rats would be inversely related to amount of handling during the 1st 20 days. In an open field test unhandled rats were significantly less active on Days 77-79 than those handled for the 1st 10 or 20 days. Following shock on Day 80 the 20-day group defecated least, and the unhandled group the most.—*R. S. Davidon.*

698. Denenberg, Victor; Ottinger, Donald R., & Stephens, Mark W. (Purdue U.) Effects of

maternal factors upon growth and behavior in rats. *Child Developm.*, 1962, 33(1), 65-71.—"The purpose of this experiment was to attempt to modify the growth and behavior of rat pups by the experimental manipulation of the mother. Some females were shocked and/or were alternately rotated between their own litter and another litter. It was found that the variable of shocking the mothers resulted in significant emotionality on the part of the offspring in adulthood and reduced body weight after avoidance learning. The rotation variable resulted in significant infantile mortality and reduced weaning weights of the surviving young as well as heightening emotionality following the stress of avoidance learning."—*W. J. Meyer.*

699. Eells, Janet F. (Northwestern U.) Inconsistency of early handling and its effect upon emotionality in the rat. *J. comp. physiol. Psychol.*, 1961, 54, 690-693.—Rats were subjected to 1 of 4 kinds of handling from 15 to 62 days of age. Tests of activity, timidity, etc. at the end of this period disclosed that unhandled controls were the most emotional, and gently handled rats were the least emotional. Rats that were consistently roughly handled, and rats that were petted and mistreated in a random order were near the middle of the range of emotionality, providing no evidence that inconsistent treatment produces the greatest emotional instability.—*W. A. Wilson, Jr.*

700. Harlow, Harry F. (U. Wisconsin) The heterosexual affectional system in monkeys. *Amer. Psychol.*, 1962, 17(1), 1-9.—"We believe that the heterosexual affectional system in the rhesus monkey, like all the other affectional systems, goes through a series of developmental stages—an infantile heterosexual stage, a preadolescent stage, and an adolescent and mature heterosexual stage." Isolation-raised monkeys later displayed severe social abnormalities—a sociopathic syndrome. Monkeys raised with surrogate mothers—rejecting wire frame mothers, air-blast mothers, and infant-shaking mothers—have seldom displayed normal sex behavior. "Month after month female monkeys that never knew a real mother, themselves become mothers—helpless, hopeless, heartless mothers devoid, or almost devoid of any maternal feeling."—*S. J. Lachman.*

701. Hockman, Charles H. (Brown U.) Prenatal maternal stress in the rat: Its effects on emotional behavior in the offspring. *J. comp. physiol. Psychol.*, 1961, 54, 679-684.—Pregnant rats were exposed daily to the presence of a stimulus which had previously been the CS in an avoidance situation. Compared to controls, the "stressed" group had a smaller percentage of live litters. The offspring of the "stressed" group were relatively inactive in an open-field at 30-45 days of age, but only in the subgroup that was raised by foster mothers. Explanations in terms of endocrine activity are offered.—*W. A. Wilson, Jr.*

702. Lindholm, Byron Walter. (U. Illinois) Critical periods and the effects of early shock on later drinking behavior in the white rat. *Dissert. Abstr.*, 1961, 21(11), 3531-3532.—*Abstract.*

703. McMichael, Robert Edwin. (U. Illinois) The effects of preweaning shock and gentling on later resistance to stress. *Dissert. Abstr.*, 1961, 21(11), 3532-3533.—*Abstract.*

704. Meyers, William James. (U. Oregon) Physiological and behavioral effects of early experienced stressors and gentling. *Dissert. Abstr.*, 1961, 21(10), 3174-3175.—*Abstract.*

705. Ottinger, Donald Ray. (Purdue U.) Some effects of maternal inconsistency and emotionality level upon offspring behavior and development. *Dissert. Abstr.*, 1961, 22(1), 324-325.—*Abstract.*

706. Peterson, Neil. (Harvard U.) Effect of monochromatic rearing on the control of responding by wavelength. *Science*, 136(3518), 774-775.—The wavelength of a discriminative stimulus exerted no control over the behavior of ducklings raised in a monochromatic environment. Stimulus control was established, however, when responding was reinforced in the presence of one wavelength and not in the presence of another.—*Journal abstract.*

707. Smith, Shirley Allen. (Purdue U.) Effect of early experience and age upon learning. *Dissert. Abstr.*, 1961, 22(1), 327.—*Abstract.*

REFLEXES & INSTINCTIVE BEHAVIOR

708. Benjamin, Lorna Smith. (U. Wisconsin) Nonnutritive sucking and dental malocclusion in the deciduous and permanent teeth of the rhesus monkey. *Child Developm.*, 1962, 33(1), 29-35.—"The nonnutritive sucking behavior of 10 rhesus monkeys was sampled during late infancy, during the time permanent teeth were appearing, and after permanent front teeth had arrived. The daily measure was the percentage of 10-sec. periods out of a possible 25 during which nonnutritive sucking was observed to occur. Under nembutal anesthesia, dental impressions of deciduous and permanent teeth were taken with Kerr permalastic impression material. Models were made of Castone dental stone. A single measure of malocclusion reflected deviation in the vertical, front-to-back, and left-to-right dimensions. Infantile thumbsucking was found to be significantly correlated with malocclusion shown in both deciduous and permanent teeth."—*W. J. Meyer.*

709. Benjamin, Lorna Smith. (U. Wisconsin) Nonnutritive sucking and the development of malocclusion in the deciduous teeth of the infant rhesus monkey. *Child Developm.*, 1962, 33(1), 57-64.—"To trace the relation of thumbsucking to the development of malocclusion during early infancy, the nonnutritive sucking of 16 monkeys was sampled continuously from birth to 180 days of age. The measure of thumbsucking was the number of 10-sec. periods out of a possible 25 during which nonnutritive sucking was observed to occur." Impressions were taken at birth, 30, 90, and 180 days of age. A significant correlation ($\tau = .50$) between average sucking and average dental displacement was found.—*W. J. Meyer.*

710. Besharat, Jalal. (Cornell U.) Maternal deprivation and adoption in sheep and goat: An ethological study. *Dissert. Abstr.*, 1961, 21(10), 3171-3172.—*Abstract.*

711. Voronin, L. G. et al. (Eds.) *Orientirovochnyi refleks i orientirovochno-issledovatel'skaia deiatel'nost'.* [The orienting reflex and orienting-investigatory activity.] Moscow, USSR: RSFSR Academy Pedagogical Sciences, 1958. 351 p.—The book reproduces the papers read at the conference on

the orienting reflex, held in Moscow in 1957 under the joint sponsorship of the Institute of Defectology and the Departments of Higher Nervous Activity and Psychology at Moscow State University.—*I. D. London.*

MOTIVATION & EMOTION

712. Benjamin, Lorna Smith. (University Hosp., Madison, Wis.) The effect of frustration on the nonnutritive sucking of the infant rhesus monkey. *J. comp. physiol. Psychol.*, 1961, 54, 700-703.—Monkeys were observed from 90 to 165 days of age in a cage which was divided in half by a transparent partition. Experimental monkeys were frustrated by restraining them in one half of the cage while food was visible in the other half. These Ss showed more nonnutritive sucking than controls which never received or saw food in the cage. Difficulties in certain theoretical explanations of the data are discussed.—*W. A. Wilson, Jr.*

713. Bolles, R. C., & De Lorge, J. (Hollins Coll.) Effect of hunger on exploration in a familiar locale. *Psychol. Rep.*, 1962, 10(1), 54.—Latency of leaving home cage was significantly shorter for 23-hr. hungry rats than for ad lib feeders.—*B. J. House.*

714. Broadhurst, P. L. (Inst. Psychiatry, U. London) A note on further progress in a psychogenetic selection experiment. *Psychol. Rep.*, 1962, 10(1), 65-66.—"Data for defecation and ambulation for five additional generations of Maudsley Reactive and Nonreactive strains (163f and 163g) of rats are given."—*B. J. House.*

715. Collier, George, & Willis, Frank N. (U. Missouri) Deprivation and reinforcement. *J. exp. Psychol.*, 1961, 62(4), 377-384.—"The relations between initial and terminal rate of bar pressing and concentration, volume per reinforcement, and interval between reinforcements, were explored as functions of deprivation. The slopes of the initial rate-concentration and initial rate-interval functions were functions of deprivation while the initial rate-volume function was not. The rate of 'shutoff' was most sensitive to deprivation at large concentrations, large volumes, and short intervals. Three independent loci of events controlling food ingestive behavior were suggested: the proximal reinforcing stimuli, the momentary post-ingestive load, and the nutritive state."—*J. Arbitt.*

716. Dufort, Robert H., & Wright, John H. (Wake Forest Coll.) Food intake as a function of duration of food deprivation. *J. Psychol.*, 1962, 53(2), 465-468.—Rats were deprived of food for 0, 12, 24, 36, 48, 72, 96, 120, 144, 168, or 192 hours and tested for food intake during a subsequent 2-hour eating period. Intake increased for deprivations up to 24 hours and then remained relatively constant for the longer deprivation periods. The results were interpreted as supporting the general conclusion that food intake is not a useful measure of the effects of different durations of food deprivation.—*Author abstract.*

717. Isaac, Walter, & Reed, Walter G.* (Emory U.) The effect of sensory stimulation on the activity of cats. *J. comp. physiol. Psychol.*, 1961, 54, 677-678.—The cage activity (light-beam crossings) of Siamese cats was greater in the dark than

in the light, regardless of whether the room was quiet or "noisy." These results for this nocturnal animal are contrasted with the opposite findings in the monkey, a diurnal animal, and the reticular formation is suggested as the site for the influence of sensory input upon activity.—*W. A. Wilson, Jr.*

718. Jacobs, Harry L. (U. Rochester School Medicine) The osmotic postingestion factor in the regulation of glucose appetite. In Morley R. Kare & Bruce P. Halpern (Eds.), *The physiological and behavioral aspects of taste* (see 37: 256). Pp. 16-27.—Data is presented to show that "water intake is primarily affected by deprivation dehydration. Glucose intake is primarily affected by the amount of glucose in the load and is not a function of its osmotic properties." Apparent osmotic effects in earlier experiments were artifactual. Caloric value is suggested as an alternative explanation for these data.—*E. Y. Beeman.*

719. Klopfer, F. D.* (Washington State U.) Threat distance in ovigerous crayfish. *J. comp. physiol. Psychol.*, 1961, 54, 710-712.—Stimulus crayfish of various sizes were allowed to approach ovigerous females until the latter displayed threat behavior. The distance between the crayfish when threat behavior occurred was directly related to the size of the stimulus animal, and inversely related to the size of the S. Control tests showed that the relationship to stimulus size was visually mediated, although threat occasionally occurred when vision was excluded.—*W. A. Wilson, Jr.*

720. McGill, T. E. (Williams Coll.) Reduction in "head-mounts" in the sexual behavior of the mouse as a function of experience. *Psychol. Rep.*, 1962, 10(1), 284.—Observation of 200 matings of 5 strains of mice showed number of headmounts to decrease as a function of number of previous ejaculations.—*B. J. House.*

721. Premack, David, & Schaeffer, Robert W. (U. Missouri) Distributional properties of operant-level locomotion in the rat. *J. exp. Anal. Behav.*, 1962, 5(1), 89-95.—"Four rats had continuous access to activity wheels first, then access for 1 hr per day, and, subsequently, continuous access. Limiting S's access to the wheel substantially increased the total frequency of running. A distributional analysis of response duration, burst duration, and interburst interval showed that the increased frequency arose almost entirely from a shortening of the interval between successive bursts. In contrast, speed of the individual response and number of responses per burst changed only negligibly. If S were running, the probability that it would either stop or continue did not differ appreciably for the conditions of continuous or limited access to the wheel. But if S were not running, the probability that it would start running was appreciably greater for limited than for continuous access."—*Author abstract.*

722. Reese, T. W., & Hogenson, Marilyn J. (Mount Holyoke Coll.) Food satiation in the pigeon. *J. exp. Anal. Behav.*, 1962, 5(2), 239-245.—Attempted to determine the food satiation curves of the pigeon as a function of hours of deprivation or percentage of free-feeding weight, and to study the fluctuation in free-feeding weight as a function of deprivation and satiation. Nearly 64% of the satiation curves were straight with an abrupt stop; 18%

were straight with a curvilinear stop. During the early part of each satiation session the pigeons responded at fairly constant rates or did not respond at all: the critical weight above which they did not respond was 85% of free feeding.—*J. Arbib.*

723. Schiff, William; Caviness, James A., & Gibson, James J. (Cornell U.) Persistent fear responses in rhesus monkeys to the optical stimulus of "looming." *Science*, 1962, 136, 982-983.—The approach of an object corresponds with a spatio-temporal optical stimulus consisting of a symmetrical expansion of a closed contour in the field of view. The visual equivalent of impending collision was isolated and compared with its sequential inversion. Infant and adult rhesus monkeys manifested persistent avoidance responses to "looming" but not to the inverse. This visual stimulus alone is a stronger exciter of avoidance, and the response appears early in life.—*Journal abstract.*

SENSORY PROCESSES

724. Baylor, Edward R., & Shaw, Evelyn. (Woods Hole, Mass.) Refractive error and vision in fishes. *Science*, 1962, 136(3511), 157-158.—The eyes of living immersed herring and silversides are farsighted and require greater hypermetropic correction for lateral vision than for anterior vision. Comparisons of lens-to-retina distances in frozen material with focal lengths of lenses are consistent with the degree of hypermetropia found by retinoscopy.—*Journal abstract.*

725. Christensen, Kent R. (U. Illinois) Methodology in preference testing. In Morley R. Kare & Bruce P. Halpern (Eds.), *The physiological and behavioral aspects of taste* (see 37: 256). Pp. 79-86.—A discussion of the methods used by P. T. Young "throughout the years in the laboratories at Illinois" and a "detailed account of the methods . . . [now being used] since the incorporation of the electronic preference tester."—*E. Y. Beeman.*

726. Christensen, Kent Ronald. (U. Illinois) Isohedonic contours in the sucrose-sodium chloride area of gustatory stimulation. *Dissert. Abstr.*, 1961, 21(12), 3860.—*Abstract.*

727. Gary, Norman E. (Cornell U.) Chemical mating attractants in the queen honey bee. *Science*, 1962, 136(3518), 773-774.—Drone attraction to ether extracts of virgin queens (*Apis mellifera* L.) demonstrated that chemical communication enables the drones to orient themselves to queens during mating flights. The primary source of queen mating attractants is the mandibular glands. Fractionation of mandibular gland lipids yielded several attractive fractions that may act jointly. One fraction was queen substance (9-oxodec-2-enoic acid).—*Journal abstract.*

728. Kare, Morley R. (Cornell U.) Comparative aspects of the sense of taste. In Morley R. Kare & Bruce P. Halpern (Eds.), *The physiological and behavioral aspects of taste* (see 37: 256). Pp. 6-15.—A review of studies done by the author and others on taste acuity in fowl and other animals. The questions of possible survival value of the sense of taste, the role of the taste buds, and the significance of their number are discussed.—*E. Y. Beeman.*

729. Mazokhin-Porshniakov, G. A. (Inst. Biological Physics, Moscow, USSR) Kolorimetriches-

koe dokazatel'stvo trikhromazii tsvetovogo zreniia pchelinykh (na primere shmelei). [Colorimetric demonstration of trichromatization of color vision in bees (bumblebees by way of example).] *Biofizika*, 1962, 7(2), 211-217.—The author presents evidence to show that the bumblebee is a trichromat, possessing 3 types of receptors with different spectral sensitivities. But the trichromatic system of color vision in the bumblebee is constructed so that each spectral illumination simultaneously excites basically not more than 2 different receptors. The systems of color vision in the bee and the bumblebee completely coincide with the exception that the long-waved receptor of the bumblebee is more sensitive to red rays.—*I. D. London.*

730. Robinson, John S., & Voneida, Theodore J. (California Inst. Technology) Mask for controlling visual input in cats. *Science*, 1962, 135(3509), 1134.—Analysis of visual function frequently requires control of visual input. The present report describes a mask which can be used for achieving this control in a variety of experimental situations.—*Journal abstract.*

731. Suckling, E. E. (State U. New York, Brooklyn) Lateral line in fish: Possible mode of action. *J. Acoust. Soc. Amer.*, 1962, 34, 127.—"The proposal is made that fish detect low-frequency sounds as 'internal vibrations' rather than as direct oscillations of the water."—*A. M. Small, Jr.*

732. Symmes, David. (Yale U.) Self-determination of critical flicker frequencies in monkeys. *Science*, 1962, 136(3517), 714-715.—5 rhesus monkeys have been successfully trained by operant conditioning techniques to continuously adjust the rate of flicker of an illuminated target above and below what is presumed to be their fusion threshold.—*Journal abstract.*

LEARNING

733. King, William J. (General Dynamics Corp., Groton, Conn.) Continuous compensatory tracking by a Cebus monkey. *Science*, 1961, 134(3483), 947-948.—A Cebus monkey was trained to hold a continuously moving voltmeter needle on-target for 60 sec. to obtain a food pellet reinforcement. The task confronting the animal was relatively complex in that the high-frequency error voltage fed to the voltmeter needle was nulled by the animal by means of a joystick physically separated from the stimulus display.—*Journal abstract.*

734. Mason, William A., & Harlow, Harry F. (Yerkes Lab. Primate Biology) The effects of age and previous training on patterned-strings performance of rhesus monkeys. *J. comp. physiol. Psychol.*, 1961, 54, 704-709.—Performance on patterned-string problems was investigated in 81 monkeys ranging in age from 60 days to adulthood. Learning was shown on all patterns in every age group, and performance generally improved with increasing age. "The perceptual capabilities of rhesus monkeys . . . are not fully developed at one year of age and probably not even at puberty."—*W. A. Wilson, Jr.*

735. Moriguchi, Noritaka. (U. Tokyo) [A study of experimental extinction: I. The effect of extinction of a response system on learning of another response system.] *Jap. J. Psychol.*, 1961, 32(5),

296-302.—The problem studied was whether the experimental extinction of a conditioned lever pressing response, under 3 conditions (Extinction to no response for 40 sec., for 2 min., and for 6 min.), affects the subsequent learning of a running response. Ss were 26 male and 35 female white rats, 6-7 months of age. It was concluded that "a relatively short time extinction in one response neither reduces the response tendency of another response nor inhibits its learning, but rather facilitates the learning of another response," and that this is a result of an increment in the original drive. (English summary) —J. Lyons.

736. O'Connell, Richard Howard. (U. Michigan) Factors affecting the choice-point behavior of the rat: Alternation and stimulus change. *Dissert. Abstr.*, 1961, 21(12), 3863.—Abstract.

737. Thetford, Paul E., & Amsel, Abram. (Menninger Found.) Generalization of reactive inhibition. *Canad. J. Psychol.*, 1962, 16(2), 138-144.—To study the generalization of response decrements, groups of rats were given preliminary training on both linear and circular runways, and were then given 20 massed trials on one or the other, or both (3-14-3). Final running times were significantly higher than initial ones in the test series, a decrement attributed to accumulation of I_R and/or drive reduction. The transfer of decrements from one response to another was taken as evidence that I_R represents relatively central processes, in contrast to Hull's position.—R. S. Davidson.

Conditioning

738. Behrend, Erika R., & Bitterman, M. E. (Bryn Mawr Coll.) Avoidance-conditioning in the goldfish: Exploratory studies of the CS-US interval. *Amer. J. Psychol.*, 1962, 75(1), 18-34.—Another of a continuing series of studies directed toward a comparative psychology of conditioning in the fish and the rat. In this series a suggested difference of the effect of variation in the CS-US interval between the 2 species is reported and examined.—R. H. Waters.

739. Green, Phillip C. (U. Wisconsin) Learning, extinction, and generalization of conditioned responses by young monkeys. *Dissert. Abstr.*, 1961, 21(10), 3172-3173.—Abstract.

740. Mosidze, V. M., & Kuchava, M. A. K voprosu o parnoi i razdel'noi rabote bol'shikh polusharii golovnogo mozga sobaki. [On joint and separate functioning of the brain in the dog.] *Soobshch. Akad. Nauk Gruz. SSR*, 1962, 28(1), 89-96.—When the skin of one side of a dog is pricked, excitation is registered in both cerebral hemispheres, but more strongly in the contralateral hemisphere. Pricking in combination with a conditioned auditory stimulus produces asymmetry in the salivary responses, particularly suppression of the contralateral conditioned salivary reflex. The conditioned salivary reflex to pricking is formed much more quickly on the ipsilateral than on the contralateral side.—I. D. London.

741. Napalkov, A. V. (Moscow State U.) Fiziologicheskii analiz nekotorykh slozhnykh form povedeniya. [Physiological analysis of some complex forms of behavior.] *Vop. Psikh.*, 1961, No. 6, 136-146.—This article reviews and summarizes a number

of experiments on chaining of reflexes. Chains of reflexes have been established in a variety of species including rabbits, rats, and man. The chains are ordinarily established by a method of successive approximation. Each link consists of a stimulus and a conditioned response finally ending with an unconditioned consummatory or defense reflex. In establishing the chain each stimulus serves as a reinforcer for the preceding response. A chain once established seems to function as a unit. Other experiments include making the operation of a food reinforced chain conditional upon the appearance or disappearance of a discriminable stimulus. This stimulus can then serve as the reinforcement for an additional chain of reflexes. Separation in time of the 2 chains doesn't appear to effect the strength of the latter chain. Reference is further made to use of complex stimuli as conditioned stimuli and omission of components of these stimuli in further experiments. The implications of these results for interpretation of complex systems of behavior are discussed.—H. Pick.

Discrimination

742. Clayton, F. L. (Brown U.) Two measures of the "cue strength" of a stimulus and its conditioned reinforcing value. *Psychol. Rep.*, 1962, 10(1), 231-240.—"Sixteen albino rats were given discrimination training under food deprivation in an operant training box. Panel pushing during S^D (white noise) was reinforced on a VI 15" schedule for one group of eight animals and on a VI 75" schedule for the other group." After training, extinction, and retraining, an attempt was made to condition bar pressing using the S^D as the only reinforcing stimulus. Significant effects were a higher S^D response rate for the VI 75" group during extinction and a higher S^D/S^A ratio for the VI 75" group during discrimination training. No significant evidence for a strong conditioned reinforcer was found.—B. J. House.

743. Falk, J. L., & D'Amato, C. J. (Cancer Research Inst. of N. E. Deaconess Hosp.) Automation of pattern discrimination in the rat. *Psychol. Rep.*, 10(1), 24.—Apparatus and procedure are described for training pattern discrimination in rats with automatic equipment.—B. J. House.

744. Hearst, Eliot. (National Inst. Mental Health) Concurrent generalization gradients for food-controlled and shock-controlled behavior. *J. exp. Anal. Behav.*, 1962, 5(1), 19-31.—Monkeys were trained to press a lever to avoid shock and to pull a chain for a food reward in a bright light condition. Generalization gradients were determined for each response to other light intensities. Additional gradients were obtained after training in a brightness discrimination and under several free-shock conditions. (23 ref.)—J. Arbit.

745. Mackintosh, J. An investigation of reversal learning in octopus vulgaris lamarck. *Quart. J. exp. Psychol.*, 1962, 14(1), 15-22.—18 octopuses were trained by a method of successive discrimination training to discriminate between a vertical and a horizontal rectangle. They were then overtrained for either 20 or 60 trials, after which they learned the reverse discrimination. At the beginning of each reversal they were given 20 trials pretraining on the new positive stimulus. The Ss completed from 2 to

9 reversals. It was found that the amount of overtraining had no effect on the rate of learning the subsequent reversal. The 1st 4 reversals all took significantly longer to learn than the original problem, but did not differ significantly from one another. However, examination of the raw data suggests that later reversals do take longer to learn. The performance when learned (i.e., on the 1st day of overtraining) was as good after reversal learning as after the learning of the original problem. The results do not show definite signs that could be interpreted as an exhaustion of a limited supply of neurones available for learning.—*Journal abstract.*

746. Pierrel, Rosemary, & Sherman, J. Gilmour. (Barnard Coll.) **Generalization and discrimination as a function of the S^D - S^A intensity difference.** *J. exp. Anal. Behav.*, 1962, 5(1), 67-71.—3 groups of 4 rats each were trained on an auditory-intensity discrimination for 21 days. The S^D - S^A difference was different for each of the groups. Following this discrimination training the animals were tested for generalization of the bar-press response to 7 novel S^A 's which were presented intermingled with the original S^D and S^A values. Generalization gradients exhibit a maximum displaced from S^D in a direction also away from S^A . Additional results are also discussed.—*J. Arbit.*

Avoidance

747. Azrin, N. H., Holz, W. C., & Hake, D. (Anna State Hosp., Ill.) **Intermittent reinforcement by removal of a conditioned aversive stimulus.** *Science*, 1962, 136(3518), 781-782.—"Brief electric shocks were delivered [to squirrel monkeys] at irregular time intervals but only while a light was on. A response was reinforced on a ratio schedule by the termination of the light. This method produced a high rate of response quite similar to that produced by a comparable schedule of food reinforcement."—*E. L. Borrowman.*

748. Baron, Alan, & Antonitis, Joseph J. (U. Maine) **Punishment and preshock as determinants of bar-pressing behavior.** *J. comp. physiol. Psychol.*, 1961, 54, 716-720.—Unconditioned bar pressing was studied in 4 groups of mice. The groups were determined by whether or not Ss received a series of unavoidable preshocks, and whether or not they were given shocks for bar pressing on the first 2 days of tests. Preshock depressed bar pressing in the not-punished groups, but produced higher response levels in the punished animals. "The findings support the hypothesis that exposure to aversive stimulation results in an adaptive process which reduces the emotionalizing and depressing effects of such stimulation on later occasions."—*W. A. Wilson, Jr.*

749. Brethower, Dale M., & Reynolds, G. S. (Harvard U.) **A facilitative effect of punishment on unpunished behavior.** *J. exp. Anal. Behav.*, 1962, 5(2), 191-199.—2 pigeons pecked keys on a variable-interval schedule during the presentation of each of 2 stimuli. At different times punishment followed every response emitted in the presence of one of the stimuli. Generally, when the rate of punished responding changed during the presentation of one stimulus, the rate of unpunished responding during the other stimulus changed in the opposite direction. This is called behavioral contrast. The effects of dif-

ferent programs are discussed as well as extinction and no punishment.—*J. Arbit.*

750. Dinsmoor, James A. (Indiana U.) **Variable-interval escape from stimuli accompanied by shocks.** *J. exp. Anal. Behav.*, 1962, 5(1), 41-47.—Conventional techniques for studying conditioned aversive stimulation separate the procedure for testing the stimulus from the procedure for making it aversive. In measuring the effectiveness of the stimulus, tests can be conducted only during the process of decline from a previous level. The present report is of a technique for measuring conditioned aversive stimulation that is continually maintained in effectiveness by further pairing with shock. Thus, continued measurement of a stable state is possible over an extended period of time.—*J. Arbit.*

751. Elder, T., Noblin, C. D., & Maher, B. (Louisiana State U.) **The extinction of fear as a function of distance versus dissimilarity from the original conflict situation.** *J. abnorm. soc. Psychol.*, 1961, 63(3), 530-533.—An earlier study (see 30: 4198) studied the behavior of rats running down alleys in which they had been shocked in comparison to alleys resembling, to various degrees, the original shock alley. Since the least similar alley was always furthest away from the original, alley similarity and distance were confounded. The present investigation was an attempt to correct this confounding. It was shown that the rat's capacity to overcome the inhibitory effects of shock experienced in one alley was related to distance from the original alley, not dissimilarity.—*G. Frank.*

752. Hanson, Harley M. (Merck Inst. Therapeutic Research) **Response patterns following manipulandum change.** *J. exp. Anal. Behav.*, 1962, 5(2), 237-238.—Much difficulty was encountered in attempting to train squirrel monkeys on an avoidance schedule. These difficulties were not found after the manipulandum was changed.—*J. Arbit.*

753. Holz, William C., & Azrin, Nathan H. (Anna State Hosp., Ill.) **Interactions between the discriminative and aversive properties of punishment.** *J. exp. Anal. Behav.*, 1962, 5(2), 229-234.—"Punishment acquires a discriminative property when it is selectively paired with either reinforcement or extinction. At the milder punishment intensities, the discriminative control exerted by punishment is similar to the discriminative control exerted by a response-produced neutral (nonaversive) stimulus. However, the effect of the aversive property is apparent as the intensity of the punishment is increased. The aversive property of the punishment acts to enhance the discriminative control when the punishment is selectively applied during extinction periods, and to attenuate the discriminative control when the punishment is selectively applied during reinforcement periods. One major difference was found between the control exerted by the punishment and the response-produced neutral stimulus: Responding greatly increased after the S^A punishment but not after the S^A neutral stimulus; this increase in responding was independent of the punishment intensities studied."—*Author abstract.*

754. Iwahara, S. (Nara Women's U.) **Response vs. stimulus fixation in the shocked rat.** *Psychol. Rep.*, 1962, 10(1), 41-42.—For 120 rats, trained to escape shock by running to either goal box of a T

maze, responses were repeated more often than stimuli when the T was reversed. The effect was not affected by changing intertrial interval from 5 min. to 30 sec. nor by pretraining for position preference reduction.—*B. J. House.*

755. Sidman, Murray. (Walter Reed Army Inst. Research) **An adjusting avoidance schedule.** *J. exp. Anal. Behav.*, 1962, 5(2), 271-277.—"A shock-avoidance schedule is described in which the animal accumulated 5 sec of safe time whenever it pressed a lever. With this schedule, the animal was not differentially reinforced for long pauses between responses; and, consistent with this property of the schedule, the probability that the animal would press the lever was not related in any regular way to the amount of time that had elapsed since its preceding lever press. Other features of the performance are also described. If the animal was given a warning stimulus whenever it came within 5 sec of a shock, it tended to spend more time in the close temporal vicinity of the shock and less time at the maximum temporal distance from shock."—*Author abstract.*

756. Sidman, Murray. (Walter Reed Army Inst. Research) **Classical avoidance without a warning stimulus.** *J. exp. Anal. Behav.*, 1962, 5(1), 97-104.—"White rats were scheduled to be shocked every 15 sec; but they were given a limited time interval between shocks when they could prevent the next scheduled shock from occurring if they pressed a lever. The duration of this limited avoidance period was varied, as was its location within the interval between scheduled shocks. Response rate, shock frequency, and the temporal distribution of lever presses were examined. Conditions were generated in which the formation of a temporal discrimination prevented the animals from maintaining successful avoidance behavior."—*Author abstract.*

757. Sidman, Murray. (Walter Reed Army Inst. Research) **Reduction of shock frequency as reinforcement for avoidance behavior.** *J. exp. Anal. Behav.*, 1962, 5(2), 247-257.—"An avoidance technique was used in which rats had two levers available, with independent shock schedules associated with each. Behavioral patterns in initial conditioning and in the maintenance of the responses with various response-shock intervals led to the suggestion that reduction of shock density be considered an important variable in avoidance behavior."—*Author abstract.*

758. Trabasso, Thomas R., & Thompson, Richard W. (Michigan State U.) **Supplementary report: Shock intensity and unconditioned responding in a shuttle box.** *J. exp. Psychol.*, 1962, 63(2), 215-216.—Kimble (1955) studied UCRs of rats to different intensities of shock. He found that shock elicited 2 kinds of responses, "flinching" at lower intensities and "jumping," which increased in frequency as shock intensity increased. Since the order of shock presentation may influence the frequency of responding and the dimensions of the shuttlebox have been found to limit the response repertoire of S, the present study was designed to replicate Kimble's with modification of these variables. The findings support the generality of Kimble's results.—*J. Arbit.*

Reinforcement

759. Aivazashvili, I. M. (Inst. Physiology, Tbilisi, USSR) **O vozmozhnosti vyrabotki uslovnogo pe-**

redvizheniia sobaki bez kakogo-libo podkrepleniia. [On the possibility of developing conditioned locomotion in the dog without any reinforcement.] *Soobshch. Akad. Nauk Grus. SSR*, 1962, 28(2), 227-233.—In the absence of alimentary reinforcement, forcibly leading a dog a given distance to a source of sound does not lead to positive conditioned locomotion, however often the procedure is repeated. But, if after 6-8 leadings, a single reinforcement is given, the dog can be positively conditioned. After a great number of leadings without reinforcement a negative conditioned reaction is formed, after which it becomes quite difficult to form a positive conditioned reaction to the sound-source with alimentary reinforcement.—*I. D. London.*

760. Barnes, Henry William. (U. Pittsburgh) **An investigation of the effects of some schedules of intermittent reinforcement on the precisely timed response of the rat.** *Dissert. Absr.*, 1961, 22(1), 329-330.—*Abstract.*

761. Berryman, R., & Nevin, J. A. (Hunter Coll.) **Interlocking schedules of reinforcement.** *J. exp. Anal. Behav.*, 1962, 5(2), 213-223.—"Four male pigmented rats were exposed to a procedure designed to investigate the relation between several performance measures and a schedule continuum ranging from FR 36 to FI 2 through four intermediate interlocking schedules. On all schedules, each subject developed a stable performance that was generally break-and-run. Analysis of the cumulative records, post-S^R breaks, and running rates showed a continuum of performance related to the schedule continuum."—*Author abstract.*

762. Bolles, R. C. (Hollins Coll.) **Percentage timing reinforcement schedules.** *Psychol. Rec.*, 1961, 11, 349-353.—Reinforcement was given during percentages of a fixed temporal cycle (15 sec.). "Seven rats were run in a two-bar operant situation to determine the discrimination threshold of differential pay-off probabilities between the two bars. The threshold was found to be just less than the difference between reinforcement 23% and 37% of the time cycle. Other features of percentage timing schedules, particularly the behavioral effects of using different pay-off probabilities, were investigated and are discussed."—*R. J. Seidel.*

763. Brownstein, Aaron J. (U. Missouri) **Predicting instrumental performance from the independent rates of contingent responses in a choice situation.** *J. exp. Psychol.*, 1962, 63(1), 29-31.—4 albino rats "were given bar-press tests with 8% and 32% sucrose concentrations presented singly and simultaneously. When tested singly, bar-press rate was inversely related to concentration. When tested simultaneously, a direct relationship was obtained. The direct relationship is due to the much suppressed responding on the 8% contingent bar with no change in rate of the 32% contingent bar. The fact that the bar-press rates parallel rates obtained for drinking in single and simultaneous tests supports Premack's (1959, 1961) theory."—*J. Arbit.*

764. Capaldi, E. J., & Senko, Monte G. (U. Texas) **Acquisition and transfer in partial reinforcement.** *J. exp. Psychol.*, 1962, 63(2), 155-159.—Rats were trained to traverse a runway under conditions of 33% reinforcement. Pattern of reinforcement and color of box in which reinforcement or

nonreinforcement occurred were varied. Predictions were derived from an aftereffects hypothesis. It was found that some of the results could not be accounted for by the serial patterning version of the discrimination hypothesis.—*J. Arbit.*

765. Catania, A. Charles. (Harvard U.) Independence of concurrent responding maintained by interval schedules of reinforcement. *J. exp. Anal. Behav.*, 1962, 5(2), 175-184.—"A pigeon's responses were reinforced on a variable-interval schedule on one key; and, concurrently, either a multiple or a fixed-interval schedule of reinforcement was in effect on a second key. These concurrent schedules . . . were programmed with or without a changeover delay (COD). Because the COD provided that responses on one key could not be followed by reinforced responses on the other key, responding on one key was not likely to accidentally come under the control of the reinforcement schedule of the other. When the COD was used, the performances on each key were comparable to the performances maintained when these interval schedules are programmed separately. . . . The concurrent performances, however, did include certain interactions involving the local characteristics of responding and the over-all rates of responding maintained by the various schedules. The relevance of the present findings to an inter-response time analysis of VI responding, a chaining account of FI responding, and the concept of the reflex reserve was discussed."—*Author abstract.*

766. Clark, Fogle C. (Evansville State Hosp., Ind.) Some observations on the adventitious reinforcement of drinking under food reinforcement. *J. exp. Anal. Behav.*, 1962, 5(1), 61-63.—"The development of strong postreinforcement drinking behavior under variable-interval food reinforcement in rats was found to be influenced by the proportion of short intervals in the VI and the proximity of the water tube to the lever."—*Author abstract.*

767. Collier, George; Knarr, Frederick A., & Marx, Melvin H. (U. Missouri) Some relations between the intensive properties of the consummatory response and reinforcement. *J. exp. Psychol.*, 1961, 62(5), 484-495.—2 groups of rats were run in a 16-ft. runway to a drinking tube. One group received 4% sucrose and the other, 32%. Both groups were allowed a fixed time on the drinking tube. The number of licks, amount consumed, and the times to traverse successive segments of the runway were measured. Variation in consummatory activity was not associated with variation in running. Introducing a delay did not result in variations in consummatory activity commensurate with those produced in running. Shift in reinforcement magnitude (up or down) disrupted consummatory behavior. Additional findings relating these variables are discussed.—*J. Arbit.*

768. Dyal, James A. (Southern Methodist U.) Latent extinction as a function of number and duration of pre-extinction exposures. *J. exp. Psychol.*, 1962, 63(1), 98-104.—96 rats were trained in a Y maze and then given differential treatment with regard to number and duration of unrewarded goal box placements. Control 9s were placed in a neutral box. A strong latent extinction effect was obtained for speed of entering the goalbox and number of errors. This effect was influenced by number and

duration of placements and by total exposure time, sometimes independently and sometimes in interaction. 2 theories of latent extinction were examined—frustration and r_g diminution. Both could accommodate the effects of number and duration of placements, with the exception that r_g theory had difficulty explaining the transitory nature of the effects.—*J. Arbit.*

769. Gonzaliz, R. C., & Bitterman, M. E. (Bryn Mawr Coll.) A further study of partial reinforcement in the turtle. *Quart. J. exp. Psychol.*, 1962, 14(2), 109-112.—2 matched groups of mature painted turtles, *Chrysemys picta picta*, were trained in a simple runway, one with partial and the other with consistent reinforcement, following which both groups were extinguished. The partially reinforced animals ran more slowly in acquisition, but showed somewhat greater resistance to extinction. The results are compared with those obtained in analogous experiments with other animals.—*Journal abstract.*

770. Hodos, William. (Walter Reed Army Inst. Research, Washington, D. C.) Progressive ratio as a measure of reward strength. *Science*, 1961, 134(3483), 943-944.—4 rats were trained to press a lever on a ratio schedule of reinforcement in which the number of lever presses required on each consecutive run increased by a fixed increment. Both concentration and volume of the reward were varied. Relationships were obtained between reward and deprivation variables and the size of the final completed ratio run.—*Journal abstract.*

771. Hulse, Stewart H., & Bacon, W. Edward. (Johns Hopkins U.) Supplementary report: Partial reinforcement and amount of reinforcement as determinants of instrumental licking rates. *J. exp. Psychol.*, 1962, 63(2), 214-215.—A previous study used large and small wet-mash rewards and examined resistance to extinction of a running response after 50% and 100% reinforcement. After partial reinforcement, the larger reward produced much faster running than the small reward; but after continuous reinforcement, the large reward produced slower running than the small reward. The present study generalizes this observation to instrumentally-conditioned licking.—*J. Arbit.*

772. Hurwitz, H. M. B. (Birkbeck Coll., U. London, England) Periodicity of response in operant extinction following continuous and fixed ratio reinforcement. *Quart. J. exp. Psychol.*, 1962, 14(1), 1-7.—The rate of response during an extinction session of 2 groups of rats, trained under a continuous and a fixed ratio reinforcement schedule, respectively, was examined. It was found that both sets of data required a 2-factor analysis, Factor r_A describing the rate of response during response burst periods and Factor t_0 the rate of quiescent, non-response periods. Both reinforcement and extinction sessions were analysed with respect to response pattern distributions. It was found that on this variable the 2 groups differed significantly from each other.—*Journal abstract.*

773. Ison, James Ratcliffe. (U. Michigan) Changes in instrumental response speed following rewarded endbox placement. *Dissert. Abstr.*, 1961, 21(12), 3861.—*Abstract.*

774.* Jensen, Glen D. (U. New Mexico) Partial reinforcement effects (PREs) and inverse

PREs determined by position of a nonrewarded block of responses. *J. exp. Psychol.*, 1961, 62(5), 461-467.—9 groups of 10 rats each were run through conditions of successive blocks of rewarded (R) and nonrewarded (NR) bar presses in a Skinner box. Animals that had a series of R trials following a block of NR trials pressed faster during a NR test series than a control group. When the R trials preceded the NR trials, slower rates of pressing were found on the test series.—*J. Arbit.*

775. Kelleher, Roger T., & Fry, William T. (Smith, Kline & French Lab.) Stimulus functions in chained fixed-interval schedules. *J. exp. Anal. Behav.*, 1962, 5(2), 167-173.—"Pigeons were required to complete three successive fixed-interval components to obtain food. When the same exteroceptive stimulus was correlated with the three components, responding was positively accelerated between food deliveries. When different exteroceptive stimuli were correlated with each component in a fixed sequence, prolonged pauses developed in the first component; low response rates developed in the second component; and responding was positively accelerated in the second and third components. When different exteroceptive stimuli were correlated with each component in a variable sequence, responding was positively accelerated in each component. Because the response and reinforcement contingencies were the same in all three procedures, the differences in performances must be due to the changes in the sequence of stimuli."—*Author abstract.*

776. Kelleher, Roger T., Riddle, William C., & Cook, Leonard. (Smith, Kline & French Lab.) Observing responses in pigeons. *J. exp. Anal. Behav.*, 1962, 5(1), 3-13.—"Pigeons were trained on an observing-response procedure in which periods of VR 100 and EXT alternated unpredictably during a white light (mixed stimulus). During VR 100, responses on a food-producing key were intermittently reinforced. Responses on the observing key produced a green light (positive stimulus) when VR 100 was in effect, and a red light (negative stimulus) for EXT. The birds did not respond on either key during the negative stimulus, but they responded on the food-producing key when the positive stimulus appeared. When observing responses produced the positive or negative stimulus on FR, observing responses were maintained until the FR reached a maximum. . . . When observing responses did not produce either stimulus, the observing-response rates fell to zero." The effect of chlorpromazine on observing-response rates is noted.—*J. Arbit.*

777. Kish, George B., & Barnes, Gerald W. (VA Hosp., Richmond, Va.) Reinforcing effects of manipulation in mice. *J. comp. physiol. Psychol.*, 1961, 54, 713-715.—Nondeprived mice were tested in a box containing a lever, which was rigid for one group and movable for the other. The movable bar produced longer durations of separate contacts, without changing the number of contacts. The results are felt to support the hypothesis that any environmental change may be reinforcing.—*W. A. Wilson, Jr.*

778. Kliens, Herbert Lionel. (U. Pittsburgh) Asymptotic effects of absolute and differential magnitudes of reinforcement on instrumental performance. *Dissert. Abstr.*, 1961, 22(1), 385-336.—*Abstract.*

779. McCain, Garvin Marvin. (U. Texas) Acquisition and reversal of a discrimination habit as a function of pre- and post-schedule of reinforcement and length of training series. *Dissert. Abstr.*, 1961, 21(12), 3862.—*Abstract.*

780. Notterman, J. M., & Mintz, D. E. (Princeton U.) Exteroceptive cueing of response force. *Science*, 1962, 135(3508), 1070-1071.—Food pellet reinforcement for rats was made contingent upon the peak force of a bar-pressing response falling within restricted limits. 2 such "bands," 5 to 10 grams and 15 to 20 grams, were established the momentarily correct "band" indicated by one of two exteroceptive stimulus values. Peak force of response tended to conform to the reinforcement requirements, the 2 stimulus values setting the occasion for differentiated distributions of response force.—*Journal abstract.*

781. Premack, David, & Collier, George. (U. Missouri) Analysis of nonreinforcement variables affecting response probability. *Psychol. Monogr.*, 1962, 76(5, Whole No. 524), 20 p.—A report of a series of 9 experiments to establish the effect of a variety of time and time-related variables on the nonconsummatory responses of female, albino rats. Bar-press and light-contingent bar-press served as responses throughout these studies while the variables included: intersession interval, physical composition of between-session maintenance environment, and the duration of the maintenance in the pretest environment. All the variables appeared to "have systematic effects upon response freedom without explicitly manipulating consequences of the measured response." A discussion of the decrement-recovery models to account for observed differences in behavior is included.—*M. A. Seidenfeld.*

782. Rozin, Paul N., & Mayer, Jean. (Harvard U.) Thermal reinforcement and thermoregulatory behavior in the goldfish, *Carassius auratus*. *Science*, 1961, 134(3483), 942-943.—Goldfish in a warm environment can cause a small drop in the temperature of their environment by pressing a lever. The fish regulate the temperature of their environment, keeping the temperature between 33.5° and 36.5° C. most of the time.—*Journal abstract.*

783. Sato, Toshiaki. Characteristics of the instrumental response recovered from extinction by free reinforcement. *Tohoku psychol. Folia*, 1961-62, 20(3-4), 89-95.—Extinguished lever-pressing was recovered in 3 groups of rats. The characteristics of the recovered response were found to be goal-directed; the underlying incentive mechanism was discussed in terms of Spence's hypothesis—*G. Rubin-Rabson.*

784. Segal, Evalyn F. (Walter Reed Army Inst. Research) Exteroceptive control of fixed-interval responding. *J. exp. Anal. Behav.*, 1962, 5(1), 49-57.—"Two pigeons were exposed to several fixed-interval schedules of food reinforcement. In some cases, exteroceptive stimuli associated with the passage of time were present. Such visual 'clock' stimuli were found to gain almost complete control over the behavior, although at the longest fixed intervals studied, the superposition of a new temporal discrimination upon the visual discrimination was observed. Where clock stimuli were made contingent upon the birds' behavior, a new form of responding

was generated. This behavior was discussed in terms of positive and negative response-tendencies resulting from several stimulus factors."—*Author abstract.*

785. **Sperling, Sally E.** (U. Michigan) **Extinction effects following nondifferential reinforcement of an irrelevant stimulus.** *J. exp. Psychol.*, 1962, 63(1), 50-56.—Rats were given 40 or 80 acquisition trials in an elevated runway under single stimulus presentation, using wide and narrow striped stimulus platforms and a light bulb, mounted on a swinging door, that was either on or off. All Ss were given 16 extinction trials on the wide platform with the light bulb and swinging door removed. In general the data are consistent with the interpretation that the primary determinant of extinction is the past reinforcement history associated with the stimuli presented during extinction, regardless of their previously relevant or irrelevant status. Thus, nondifferential reinforcement of an irrelevant stimulus may be considered to be equivalent to 50% partial reinforcement.—*J. Arbit.*

786. **Wist, Eugene R.** (U. Missouri) **Amount, delay, and position of delay of reinforcement as parameters of runway performance.** *J. exp. Psychol.*, 1962, 63(2), 160-166.—2 reinforcement concentrations (8% and 32% sucrose solutions), 2 delay intervals (3 and 45 sec.), and 3 delay positions (2, 6, and 10 ft. from the goal box) were factorially combined in a study of rat performance and consummatory behavior in a runway. Running occurs "at rates determined by its consequences such as the concentration of reinforcement, and it occurs everywhere at the same rate independent of its temporal or spatial distance from its climax. Factors such as fatigue or habituation may result in declines in rate over long distances. Factors such as obstacles and distracting stimuli may produce local disturbances in running, but do not manipulate its basic rate. Time and distance factors, important in the classical treatment of performance gradients do not readily account for the effects obtained."—*J. Arbit.*

787. **Witte, Robert S.** (San Jose State Coll.) **Conditional response probability in a T maze.** *J. exp. Psychol.*, 1961, 62(5), 439-447.—"A model derived from statistical learning theory was tested with rats in a T maze. The major independent variables were two sequentially dependent reward schedules and four intertrial intervals. After preliminary training under massed trials, the Ss [naive hooded rats] under a given reward schedule were rotated through each intertrial interval in accordance with a latin square design. . . . In general, the theory successfully predicted changes in conditional response probability as a function of both trial spacing and various sequences of rewards."—*J. Arbit.*

788. **Wunderlich, Richard A.** (Johns Hopkins U.) **Strength of a generalized conditioned reinforcer as a function of variability of reward.** *J. exp. Psychol.*, 1961, 62(4), 409-415.—Rats were run in a straight alley under different types of reward (food, water, or both) and distribution of these rewards. Evidence for a generalized conditioned reinforcer (GCR) was found, i.e., a group that received either food or water randomly from trial to trial demonstrated greater resistance to extinction than groups receiving both food and water, only food, or only water from trial to trial. The reinforcement strength in the GCR effect was noted.—*J. Arbit.*

Motivation & Learning

789. **Cicala, George A.** (Princeton U.) **Running speed in rats as a function of drive level and presence or absence of competing response trials.** *J. exp. Psychol.*, 1961, 62(4), 329-334.—2 experiments, using Cotton's technique of analyzing noncompeting response trials separately, were performed to determine the role of extraneous stimuli in the acquisition and performance of an instrumental running response. The results supported the view that asymptotic performance varies as a function of drive and that this relation obtains even when competing response trials are removed from the data.—*J. Arbit.*

790. **Clayton, Keith Neil.** (Northwestern U.) **The relative effects of forced reward and forced nonreward during successive discrimination reversal.** *Dissert. Abstr.*, 1961, 21(10), 3162.—*Abstract.*

791. **Fujita, Osamu.** (Tokyo U. Education) [Studies of spontaneous alternation in the rat: VIII. The effect of food deprivation, reward, and intertrial interval.] *Jap. J. Psychol.*, 1961, 32(5), 303-310.—Previous studies in this series had shown that spontaneous alternation decreased with an increase of food deprivation when the reward was available at both ends of a T maze. In the present study the variable of reward-nonreward was added to those of the original experiment, which was then replicated. Compared with the nonreward condition, reward served to decrease significantly the percentage of alternation under conditions of 48 hr. of food deprivation. In addition, an increase in time of deprivation significantly decreased the animals' running time under both rewarded and nonrewarded conditions. The author suggests that the results point to an interaction of food deprivation with reward. (English summary)—*J. Lyons.*

792. **Shaw, Thomas Howard.** (New York U.) **Frustration and anxiety: A study of differences between frustration and anxiety drive properties in selective learning.** *Dissert. Abstr.*, 1961, 21(12), 3865-3866.—*Abstract.*

793. **Solomon, R. L., & Turner, L. H.** (U. Pennsylvania) **A note on "A goalless gradient."** *Psychol. Rep.*, 1962, 10(1), 203-208.—Performance of 31 well-tamed, hungry, and thirsty rats on the first run in a 24-ft. maze showed evidence for a goal gradient in retracing measures but not in running speed. The relevance of the results to the hypothesis that the goal gradient results from the interaction between fear and curiosity was discussed.—*B. J. House.*

794. **Stabler, John Roberts.** (U. Texas) **Performance in instrumental conditioning as a joint function of time of deprivation and sucrose concentration.** *Dissert. Abstr.*, 1961, 21(12), 3866.—*Abstract.*

795. **Storms, Lowell H., Borocz, George, & Broen, William E., Jr.** **Punishment inhibits an instrumental response in hooded rats.** *Science*, 1962, 135(3509), 1133-1134.—Punishment led to the cessation of a food-rewarded bar-pressing response in hooded rats deprived of food for 23 hours. The response remained inhibited for 2 weeks, and only 1 of 4 rats resumed responding when food deprivation was increased to 47 and 71 hours.—*Journal abstract.*

796. Thompson, Merrell E., & Martin, Edward J. (New Mexico State U.) **Supplementary report: Alternation in a T maze with habit held constant.** *J. exp. Psychol.*, 1961, 62(6), 629.—The present study was designed to give a simple and more concise test of the author's 2-factor theory of inhibition and to check upon earlier conclusions regarding the role of reinforcement and stimulus variables and their interaction. As in the previous report, it was found that nonrewarded rats will alternate stimuli and repeat responses in a Cross T maze when the maze arms are dissimilar and will alternate response and repeat stimuli in a Cross T maze when the arms are similar. No support was found for the hypothesis that rewarded rats will alternate responses and repeat stimuli in the Cross T maze.—*J. Arbit.*

797. Woods, Paul J. (Hollins Coll.) **Behavior in a novel situation as influenced by the immediately preceding environment.** *J. exp. Anal. Behav.*, 1962, 5(2), 185-190.—"Behavior in a novel situation, which basically represented an increase in complexity for some Ss and a decrease in complexity for others, was sampled by the use of an exhaustive list of response categories at 5-sec. intervals for 24 min. Wide behavioral differences are described. In addition, the feasibility of the time-sampling technique for the study of animal behavior is further demonstrated, and its more general use is advocated.—*Author abstract.*

COMPLEX PROCESSES

798. Firsov, L. A. (Acad. Science SSSR) **Sravnitel'naya kharakteristika povedeniya i nekotorykh vegetativnykh funktsii u shimpanze.** [Comparative characteristics of the behavior and several vegetative functions of chimpanzees.] *Dokl. Akad. Nauk SSSR*, 1961, 141(6), 1522-1524.—On the basis of behavioral reactions 5 chimps were classified as representatives of phlegmatic or excitable types of nervous systems. The indices for type of nervous system consisted of such manifestations as general aggressive behavior, motor activity during the night, conditionability, etc. It was then found that animals so classified differed on indices of a number of vegetative functions. In general these functions were more stable in the phlegmatic animal than in the excitable. For example, body temperature and length of sexual cycle were more constant in the phlegmatic animal.—*H. Pick.*

799. Frings, Hubert. (U. Hawaii) **Animal communication.** *Amer. J. Psychiat.*, 1962, 118(10), 872-880.—Communication, defined as transmission of information from one organism to another via chemical or physical means, is discussed as it operates in a wide variety of animal species.—*N. H. Pronko.*

800. Hearst, Eliot. (St. Elizabeths Hosp., Washington, D. C.) **Delayed alternation in the pigeon.** *J. exp. Anal. Behav.*, 1962, 5(2), 225-228.—"Pigeons were studied in a delayed-response task requiring alternation of key pecks on two response keys. Blackouts of from 1 to 10 sec intervened between successive choices on the two keys. The following results were obtained. (1) Birds performed at well above chance accuracy on all the delays tested. Accuracy was generally lowest at 1- and 10-sec delays. (2) Overt postural orientations during the delay interval appeared to mediate accurate key-

pecking behavior. (3) The shape of the delay vs. accuracy function was discussed in terms of the possibly confounding influences of (a) stimulus 'trace' variables, and (b) aversive effects of the time outs produced by incorrect responding.—*Author abstract.*

801. Richard, Paul-Bernard. **Essai préliminaire sur l'adaptation a des problèmes simples chez le castor (castor fiber).** [Problem solving in beavers.] *J. Psychol. norm. pathol.*, 1960, 57(4), 421-430.—2 beavers living in a natural environment—in a park containing a pond and with free access to food at all times—were presented some detour tasks and problem boxes containing additional food. Observations concerning sensory cues, memory for position, and manipulation of the several opening mechanisms of the boxes revealed greater learning capacity than had been described heretofore in rodents.—*M. L. Simmel.*

802. Smythe, R. H. **How animals talk.** Springfield, Ill.: Charles C Thomas, 1961. 109 p. \$4.50.—"This book discusses the methods by which, and the extent to which, animals communicate with one another. Such communication may be effected by the production of sound waves or by the exhibition of some particular form of behaviour. . . . we will . . . consider the possibility of animal communication without the use of recognisable language or an alphabet, and try to determine whether the means that animals employ and the results they attain are in any way comparable with those we ourselves achieve."—*C. J. Adkins.*

803. Smythe, R. H. **The mind of the dog.** Springfield, Ill.: Charles C Thomas, 1961. 119 p. \$4.50.—A variety of psychological factors are discussed in this popular approach. The material is organized into 6 chapters as follows: "Concerning Psychology," "Dog and Man," "Factors Influencing Behavior" (imprinting, intelligence, temperament, memory, orientation, sense of humor, and conscience), "The Special Senses," "Social Behavior," and "The Female of the Species."—*C. J. Adkins.*

804. Swearingen, John J., & Mohler, Stanley R. **Sonotropic effects of commercial air transport sound on birds.** *Fed. Aviat. Agency Rep.*, 1962, No. 62-4. 5 p.—The Electra sound spectrum contains an audible chirp which appears identical in frequency and wave form to the chirp of field crickets. Field observations strongly indicate that the sound of the taxiing Electra exerts an attraction for starlings, and possibly other birds, particularly in the fall in the Northeast, when insects suddenly become less plentiful. The implications of this attraction ("positive sonotropism") for air safety are discussed. Recommended approaches to alleviating this type of bird hazard are presented.—*FAA.*

SOCIAL BEHAVIOR

805. Angermeier, W. F. (Austin Coll.) **The effect of a novel and novel-noxious stimulus upon social operant behavior in the rat.** *J. genet. Psychol.*, 1962, 100, 151-154.—6 adult albino rats were trained to press a bar for visual contact reinforcement with another male rat, a baby chick, the combined effects of a baby chick and a 100-watt light, and a chick again. The results showed that a certain type of social stimulus will raise bar-pressing frequency significantly, and that a combined novel-noxious

stimulus will depress bar-pressing significantly, but not totally eliminate it. The investigation suggested placing future emphasis on qualitative aspects of stimuli, such as hue, size, sound, and movement.—*Author abstract.*

806. Chauvin, Rémy. *Le comportement social chez les animaux.* [Social behavior in animals.] Paris, France: Presses Universitaires France, 1961. 169 p. NF 8.—3 classes of relationships among animals are distinguished: solitary life and assemblages, social relationships between individuals (aggression, play, courtship), and typical animal societies (characterized by common tasks and division of labor). Principal attention is given to insects—especially bees, ants, wasps, and termites. Birds, fish, and mammals are less extensively treated.—C. J. Smith.

807. Freedman, Lawrence Zelic, & Rosvold, H. Enger. (U. Chicago Medical School) Sexual, aggressive and anxious behavior in the laboratory macaque. *J. nerv. ment. Dis.*, 1962, 134(1), 18-27.—The hypothesis was tested that measurable changes in interanimal relationship in sexuality would result as a function of systematically varying the endocrine level of the female. 7 mature rhesus macaques (4 ovariectomized females and 3 intact males) successively paired with each other were observed for a period of 2 years under standard laboratory conditions. Estrogen changes in the female were significantly related to variations in the sexual, aggressive, and anxiety interaction of males as well as females.—N. H. Pronko.

808. Mason, William A. (Yerkes Lab. Primate Biology) The effects of social restriction on the behavior of rhesus monkeys: III. Dominance tests. *J. comp. physiol. Psychol.*, 1961, 54, 694-699.—Dominance relationships were studied within a group of 6 laboratory-reared (restricted) monkeys and within a group of 6 feral monkeys. Stable relationships established in the feral animals in non-competitive situations were maintained with little change over 16 sessions of food-competition testing. Dominance relationships of restricted monkeys were unstable in the competition situation, and bore little relationship to other measures of social behavior, demonstrating "the importance of social learning in the establishment and maintenance of dominance relationships."—W. A. Wilson, Jr.

• ABNORMAL BEHAVIOR

809. Farren, Donald R. (Florida State U.) The effect of length of food and water deprivation and schedule of noxious stimulation upon production of ulcers in the rat. *Dissert. Abstr.*, 1961, 21(12), 3850-3851.—*Abstract.*

810. Huff, Sally D., & Huff, Ronald L. (Jackson Memorial Lab., Bar Harbor, Me.) Dilute locus and audiogenic seizures in mice. *Science*, 1962, 136(3513), 318-319.—Evidence which indicates a positive relationship between susceptibility to audiogenic seizure and dilute coat color in mice is presented, and a possible mechanism for this relationship is discussed.—*Journal abstract.*

811. Krushinskii, L. V. (Moscow State U.) Animal behavior: Its normal and abnormal development. New York: Consultant's Bureau, 1962. xviii, 260 p. \$12.50.—(Translated from the original Russian.) The author's thesis is that complex ani-

mal behavior is the result of an integration of innate and acquired reflexes. Investigations and literature are described which show how this type of mechanism operates in the case of defense reactions of dogs. The development of behavior in relation to the classical Pavlovian types of nervous system is described. This relationship is further developed by showing how endocrine factors affect behavior by influencing the functional state of the nervous system. Further studies described include manipulation of the nervous system itself through use of drugs and genetic control. Finally a recently investigated type of complex behavior, the "extrapolation reflex" is described. This consists of a type of tracking response in animals. H. Pick.

DEVELOPMENTAL PSYCHOLOGY

812. Bergeron, Marcel. Les conceptions psycho-biologiques de Henri Wallon. [The psychological concepts of Henri Wallon.] *Evolut. psychiat.*, 1962, 27(1), 27-65.—Wallon's comparative studies of motor and mental stages in normal and defective children formed the basis for his psychobiosociological concept of developmental stages, as follows: First, the child goes through a series of progressive stages (emotional, sensory-motor, and projective, with the help of postural and motor functions, and sensorial activity). Next, is the stage of emotions, involving different processes of perception and representation, symbolic or verbal. Personality is formed around the body image and roles assumed in primary interpersonal relationships. The article concludes in a criticism and comparison with psychoanalytic concepts. (39-item bibliogr., English summary)—L. A. Ostlund.

813. Comalli, P. E., Jr., Wapner, S., & Werner, H. (Clark U.) Interference effects of Stroop color-word test in childhood, adulthood, and aging. *J. genet. Psychol.*, 1962, 100, 47-53.—The study was directed towards uncovering differences during ontogenesis and aging concerning the capacity of an individual to maintain a uniform course of action independent of interfering stimuli. A modified form of the Stroop color-word test was used. This test consisted of 3 tasks: (a) reading of 100 color words (red, blue, and green) printed in black ink, (b) naming 100 rectangular patches of color (red, blue, and green), (c) naming the color of the ink in which 100 color-words (red, blue, and green) were printed, but where the actual color of the ink was different from the color designated by the word. The critical part of the test (c) involved interference of word reading with color naming. The Stroop test was administered to a total of 235 Ss ranging from 7 to 80 years of age. It was found that the degree of interference of color-words on color naming is greatest with young children, decreases with increasing age to adulthood, and increases again with older ages. These changes with age were interpreted in terms of comparative-developmental theory.—*Author abstract.*

814. Dublineau, Jean. L'emotion dans l'oeuvre de Wallon et le problème typo-évolutif. [Emotion in the work of Wallon and the problem of evolutionary types.] *Evolut. psychiat.*, 1962, 27(1), 67-89.—A synthesis of the contributions of Wallon and the author points up the distinction that while Wallon describes development in somewhat separate stages,

Dublineau suggests that instead of a progression, these stages may be concomitant. However, a developmental crisis reproduces the progress of emotional and motor alterations, with a certain degree of organic and psychic maturation of motor and emotional functions. Thus, Wallon's work lends support to Dublineau's theory of a functional and evolutionary typology. (English summary)—*L. A. Ostlund.*

815. Engel, George L. (U. Rochester) **Psychological development in health and disease.** Philadelphia, Pa.: W. B. Saunders, 1962. xxxiv, 435 p.—A text for medical students and psychiatric residents. Part I conceptualizes behavior from a psychoanalytic viewpoint, "a biologically determined developmental destiny, adapted to and adjusting in a physical, interpersonal, and social environment." Part II examines ways in which development, adaptation, and adjustment may be disturbed or interfered with by environmental stress such as grief, danger, disaster, and deprivation. The significance of unresolved intrapsychic conflicts are considered. Biological, psychological, and social factors predisposing to psychiatric disease; the phenomenology of psychiatric disease; factors underlying syndrome formation; nosological categories; and somatic consequences of psychological stress in compensated states (conversion reaction, pain) and decompensated states (somatopsychic-psychosomatic disorders) are described.—*C. H. Miley.*

816. Engelmann, Wolfhard. **Reifungsentwicklung und Reifungsveränderung im gefühlsbetonten Wertungsbereich unserer Jugend.** [Development of maturation and maturation changes in the realm of emotionally tinted values of our youth.] *Psychol. Rdsch.*, 1962, 13(2), 131-140.—4457 pupils, age 9-17, wrote essays on "who I would like to be most (least) and why." The statistical evaluation of the results compared to similar, previous studies dating back to 1901 show acceleration of today's youth in the realm of practical intelligence but retardation in the ethical realm. The gap between practical intelligence and critical control leads to increased tensions in today's youth. This might explain the frequently observed proneness to succumb to conflicts.—*W. J. Koppietz.*

817. Hadfield, J. A. **Childhood and adolescence.** Baltimore, Md.: Penguin, 1962. 286 p. \$1.25.—The material of the book was derived from 4 sources: the Leytonstone Homes of about 300 children, where the author was consultant psychologist; the analysis of patients suffering from behavioral and psychoneurotic disorders; the diaries which the author kept of his 3 sons in the early part of their lives, as well as his observations of his grandchildren; and, finally, the publications of others—Gesell, Murchison, and Carmichael. The author writes from his own observations first and then supports or interprets his observations through the writings of others. Drawing on a long clinical experience he describes in simple terms a child's natural equipment, the theory of maturation, the phases of early development, the organization of personality, and the period of adolescence. 2 final chapters, on abnormalities and the principles of parenthood, close the book. This is an equally valuable introduction to childhood and adolescence for parents and teachers.—*P. D. Leedy.*

818. Lewis, M. M. (U. Nottingham, England) **How children learn to speak.** New York: Basic Books, 1959. 144 p. \$3.00.—First published in

London (George G. Harap) in 1957, this is a popular account of language development during the first 2 years of life. It consists of 11 chapters in 4 parts. The 1st is concerned with why the baby cries, including a description of his 1st cries and noises and of his responses to sound. Part II consists of 2 chapters dealing with babbling and imitation. In Part III there are 4 chapters concerned with the child's understanding of words, his use of 1st words, the acquisition of the mother tongue, and the naming stage. The 4th part takes up problems of changes in word form and meaning. The book is based largely on the biographical study of the author's own son published originally under the title *Infant Speech* in 1936 (see 11: 515).—*D. McCarthy.*

819. Witkin, H. A., Dyk, R. B., Fattuson, H. F., Goodenough, D. R., & Karp, S. A. (State U. New York Coll. Medicine) **Psychological differentiation: Studies of development.** New York: Wiley, 1962. xii, 418 p. \$7.95.—Psychological differentiation and integration are essential attributes for adequate adjustment. The foregoing statement serves as the basis for a large number of investigations which fall into 3 major areas: self-consistency in individual functioning as an expression of extent of differentiation; the contribution of life experiences and characteristics present in early infancy to pace development of differentiation; and stability of individual patterns of functioning during development. Extensive descriptions of method and results are presented as well as exemplary case studies.—*W. J. Meyer.*

INFANCY

820. Blauvelt, Helen H. (State U. New York) **Capacity of a human neonate reflex to signal future response by present action.** *Child Developm.*, 1962, 33(1), 21-28.—"The orienting or 'rooting' reflex, which often initiates feeding, was stimulated three times (three trials) repetitively in neonates in the first four days of life. A dependency of a response at the third trial upon a response at the second trial was shown. This is suggested as a signal enabling the mother to anticipate the infant's response in the task of initiating the first feedings."—*N. J. Meyer.*

821. Freedman, Daniel G. (Langley Porter Neuropsychiatric Inst.) **The infant's fear of strangers and the flight response.** *J. Child Psychol. Psychiat.*, 1961, 2(4), 242-248.—This fear makes its appearance at about 5-10 months. It was hypothesized, but not tested, that it is homologous to the flight response found in other mammals.—*J. M. Reisman.*

822. Ingram, T. T. S. (U. Edinburgh) **Clinical significance of the infantile feeding reflexes.** *Developm. Med. Child Neurol.*, 1962, 4(2), 159-169.—The diagnostic significance of the rooting, lip, suck, and swallowing reflexes is limited. "Spontaneous feeding behavior gives much more valuable information, not only about the presence or absence of the feeding reflexes but also of their integration—and the extent to which they are co-ordinated with other activities of the child." (44-item bibliogr.)—*T. E. Newland.*

823. Knobloch, Hilda, & Pasamanich, Benjamin. (Ohio state U.) **The developmental behavioral ap-**

proach to the neurologic examination in infancy. *Child Developm.*, 1962, 33(1), 181-198.—In the evaluations from normal neuropsychologic functioning in infancy it must be remembered that damage to the brain usually leads to a variety of disabilities; that damage can range from minimal to severe; and that the diagnosis which is made on the basis of observed abnormal behavior is dependent on the age and maturity of the infant. "Data are presented which indicate that the behavioral approach, using the Gesell Developmental and Neurologic Examination, is a valid and reliable procedure capable of eliciting distinctive patterns in those areas of behavior in which abnormalities occur."—*W. J. Meyer.*

824. Levin, Gid'on. Keshet umaga shel hatinok im hazulat. [The baby's contact and connection with others.] *Ofakim*, 1961, 15, 82-85.—Various means of the baby's connection with people are reviewed which enable mutual relations before he begins to speak. These relations are involved in his drive energy, they are possible due to motor and perception mechanism, and they are carried out in various kinds of mutual contact.—*H. Ormian.*

825. Mitchell, Ross G. (Queen's Coll., Dundee, Scotland) The Landau reaction (reflex). *Developm. Med. Child Neurol.*, 1962, 4(1), 65-70.—The 3 components, when the infant is ventrally supported by a hand, are: (a) extension of the neck and head, (b) extension of the spine and trunk (concavity), and (c) elevative extension of the legs at the hips. The reaction may be elicited from about 3 months onwards, seldom after 12 months. The diagnostic implications and the mechanism involved are suggested.—*T. E. Newland.*

826. Parmelee, Arthur H., Jr. (U. California, Los Angeles) European neurological studies of the newborn. *Child Developm.*, 1962, 33(1), 169-180.—"I have attempted to present first the contributions of two of the major pioneers in the field of newborn neurology, Albrecht Peipes and Andres-Thomas. These men were intent on delineating the level of functioning of the nervous system of the newborn by careful observation and clinical study and by the correlation of these observations with animal experiments and neurological pathology in older children and adults. These two pioneers have been followed by two younger investigators, Heinz Prechtel and Saint Ann-Dargassus, who are more concerned with diagnostic techniques in the neurology of the newborn."—*W. J. Meyer.*

CHILDHOOD

827. Bastenford, William Leon. (Claremont Graduate School) Activation level, as measured by palmar conductance, and intelligence in children. *Dissert. Abstr.*, 1961, 21(10), 3156.—*Abstract.*

828. Bijou, Sidney W., & Baer, Donald M. (U. Washington) Child development. Vol. 1. A systematic and empirical theory. New York: Appleton-Century-Crofts, 1961. vii, 90 p. \$1.50.—Written from the viewpoints of learning theory and natural science for the college student who has little background in psychology. Following a discussion of the nature of contemporary psychology and its relationships to animal biology and cultural anthropology, the developing child is conceptualized as an inter-related cluster of responses and stimuli. The major

portion of the book is concerned with a nontechnical discussion of respondent and operant behavior and operant-respondent relations, including emotional behavior and self-control.—*C. M. Franks.*

829. Bjerg, Kresten. (Harvard U.) Oplevelse af børns adfærd. [The phenomenological study of 'perceived child behavior.' *Nord. Psykol.*, 1962, 14(1), 21-34.—"Some preliminary reflections on the subject of adults' experience of young children's behavior. An attempt is made to stress the 'search for meaning,' which the actual form of such phenomena seems to serve, and to define some of the more crucial aspects of experienced sense, i.e. interpretations of observable behavior variables (movements, cries, mimicry etc.) with special reference to the behavior of infants. The author demonstrates seven varieties or aspects of perceived meaning in child behavior . . . intensions or the obvious 'sense,' emotions, thoughts, character traits, 'cuteness,' somatic or physical aspects perceived as explanatory of behavior, and the aspect of meaninglessness or 'non-sense.' The first six of these are shown often to be ['adultmorphic']. . . More generally, however, the study is intended to delineate a hitherto relatively unexplored field of psychology, knowledge of which is shown to be fundamental to any deeper studies in child psychology." (English summary)—*L. Goldberger.*

830. Brown, Janet L. (Yale U.) Differential hand usage in three-year-old children. *J. genet. Psychol.*, 1962, 100, 167-175.—It was found that dominance (defined as a statistically significant difference in hand use) in 3-year-old nursery school children could be equally well determined from ratings of hand use on skilled or on ego-syntonic activities (activities that involved contact with objects or with people). On the other hand, dominance in non-egosyntonic actions (aggression and contact of own body) was rare, and $\frac{1}{2}$ the children actually used their nondominant hand more for these activities. It was suggested that hand use might provide a tool for the genetic study of ego-syntonic and non-ego-syntonic activities.—*Author abstract.*

831. Cohn, Fay S. (U. Michigan) Fantasy aggression in children as studied by the doll play technique. *Child Developm.*, 1962, 33(1), 235-250.—This review of the literature covers some 2 decades of experimentation and focuses on the theoretical and empirical implications that can be derived by studying fantasy aggression through doll play. Although much of the published research has been concerned with the methodological variables of doll play, it is concluded that the technique holds considerable promise for the study of the effects of such variables as frustration, punishment for aggression, and identification on doll play aggression.—*W. J. Meyer.*

832. Crow, Lester D., & Crow, Alice. Child development and adjustment: A study of child psychology. New York: Macmillan, 1962. 514 p. \$6.50.—An introductory treatment viewing the child "as an integrated growing individual who is both dynamic and purposeful. Hence each aspect of development is related to every other so that a picture of the whole child emerges. . . . The developmental approach is centered around what can be expected of the normal child, but individual deviations among children also receive attention." Questions, discussion topics, and selected references are given after each of the 20 chapters.—*B. Lowenfeld.*

833. de Lissovoy, Vladimir. (Pennsylvania State U.) Head banging in early childhood. *Child Develpm.*, 1962, 33(1), 43-56.—A group of 33 children, 23 boys and 10 girls, who were known head bangers were observed under normal bedtime conditions. The mean age of the group was 26.6 months. 4 characteristic positions of head banging were noted: on hands and knees, sitting, prone, and standing or kneeling. Age of onset ranged from 3 to 12 months and all Ss had a history of other rhythmic activities. A follow up study showed that 14 of the children had ceased head banging between 27 and 48 months of age.—W. J. Meyer.

934. Durand, Marguerite. Quelques souvenirs de compréhension enfantine du langage. [Memories of childhood understanding of language.] *J. Psychol. norm. pathol.*, 1960, 57(3), 253-256.—Several descriptions of a child's misunderstanding and interpretation of phrases containing yet unknown words.—M. L. Simmel.

835. Elkind, David. (U. California, Los Angeles) Children's conceptions of brother and sister: Piaget Replication Study V. *J. genet. Psychol.*, 1962, 100, 129-136.—210, 5-11-year-old children were tested in a systematic replication of Piaget's study of children's conceptions of brother and sister. There was generally good agreement between the original and replication studies with respect to the ages at which tests were passed and the kinds of responses obtained. In the present study, however, the results were given an interpretation different from the one offered by Piaget. According to the present paper, Piaget's tests measured not 1 development but 2: (a) class conception of "brother" and (b) the relational conception of "having-a-brother." The course of the 2 developments was traced in relation to success and failure on Piaget's tests. While both class and relation conceptions developed in 3 stages, the stages were different in character and appeared at different ages. It was concluded that the class and relational conceptions, associated with the same term can undergo quite different developments.—Author abstract.

836. Frankenstein, Carl. (Hebrew U., Jerusalem) Yaldut veoni. [Childhood and poverty.] Jerusalem, Israel: Hebrew Univer., Magnes Press, 1959. 20 p.—In the modern industrial society the personality of a child of poor, proletarian origin is likely to be disturbed. Also, the development of the child's innate intelligence will be normal only when inner and outer conditions of growing will permit it and promote internalization. Otherwise, a process of externalization will occur. Some brief educational and social hints are given.—H. Ormian.

837. Golan, Shmuel. Sugyot hakibuts. [Problems of the kibbutz.] Merhavia, Israel: Sifriyat Poalim, 1961. 287 p.—The 2nd (posthumous) volume of Golan's collected writings. The 1st part covers interpersonal relations, mores, and customs in kibbutz life. The 2nd part deals with the kibbutz family on the background of general changes in family life. The 3rd and 4th parts ("Between Youth and Adulthood" and "Youth in Israel and in the Kibbutz") contain some papers on psychological and sociological aspects of youth abroad and in Israel, especially in the kibbutz—juvenile crisis, love, the spiritual world of adolescents, recent crisis and the kibbutz youth, and education for the kibbutz.—H. Ormian.

838. Horowitz, Frances Degen. (U. Kansas) Incentive value of social stimuli for preschool children. *Child Develpm.*, 1962, 33(1), 111-116.—"It was hypothesized that in a lever pulling task preschool Ss would remain longer when the task involved seeing a picture of a best friend than when it involved seeing a picture of a neutral peer, which in turn would keep Ss longer than when they saw a blue light. Older and younger Ss were randomly assigned to the three treatment groups: light; neutral peer; best friend. The results indicated support for the hypothesis at the younger age level on two of the three experimental measures, mean time that Ss remained in the experimental situation and mean number of stimulus exposures. Age differences in rate of responding were indicated. Implications of the results were discussed."—W. J. Meyer.

839. Kezheradze, E. D. (Inst. Psychology, Akad. Nauk, Georgian SSR Tbilisi) K voprosu o genezise pis'ma v doskol'nom vozraste. [On the problem of the development of writing at the preschool age.] *Vop. psikh.*, 1961, No. 5, 99-108.—An investigation of the development of writing and, in particular, the question of whether drawing is an early stage of writing with all its symbolic significance. 2 children were systematically observed and 10 children occasionally observed with respect to any drawing or writing activity. The results of the observations suggest that drawing and writing are 2 entirely separate activities which may either develop separately or simultaneously. Writing develops as a symbolic activity representing speech; drawing develops as a symbolic activity representing objects.—H. Pick.

840. Koupernik, Cyril. Notions de stades de developpment dans l'oeuvre d'Henri Wallon. [Concepts of stages of development in the work of Henri Wallon.] *Evolut. psychiat.*, 1962, 27(1), 101-109.—Wallon's premise was that a valid theory of development could not be built solely on psychological formulations. However, a purely static description of successive stages was also held inadequate. His early correlations between pathological states of the brain and normal stages of development in children have been criticized. However, his concept of dynamic stages, starting with motor impulses and leading to social integration, has been considered one of the most comprehensive approaches to the problem of child development. (English summary)—L. A. Ostlund.

841. L'Abate, Luciano. (Washington U. School Medicine) Consensus of choice among children: A test of Piaget's theory of cognitive development. *J. genet. Psychol.*, 1962, 100, 143-149.—Children from kindergarten to 5th grade were given a multiple-choice picture story test. Up to the 2nd grade, there was an increasing trend to choose a particular picture in each set. No progressive increase was found after the 2nd grade—a finding that supports Piaget's view of development stages in cognitive functioning.—Author abstract.

842. Le Guillant, Louis. L'enfance inadaptee dans l'oeuvre d'Henri Wallon. [Maladjusted childhood in the works of Henri Wallon.] *Evolut. psychiat.*, 1962, 27(1), 121-139.—The publication by Henri Wallon of *L'Enfant Turbulent*, in 1925, marked a milestone in child psychology because the influence of the environment was emphasized. Previously, under the influence of Dupré, the concept of hereditary weakness was dominant. Wallon's other im-

portant contributions are mentioned, including objective studies of character and thought, and the elaboration of therapeutic procedures. (English summary)—*L. A. Ostlund.*

843. Levin, Harry, & Wardwell, Elinor. (Cornell U.) The research uses of doll play. *Psychol. Bull.*, 1962, 59(1), 27-56.—"Besides methodological studies the findings in five areas of investigation which have used doll play were summarized: aggression, stereotyping, doll preference, effect of separation from parents, and prejudice. Although certain groups of studies yield interrelated results, the use of this research tool has been so varied that the overall impression is of many disparate findings, in spite of the basic similarity in method. It is suggested that a conceptual difficulty underlying the studies has been the lack of distinction between wish fulfilling and replicative fantasies in children."—*W. J. Meyer.*

844. Noëting, Gérald. Recherches sur le développement des perceptions: XL. La structuration progressive de la figure Müller-Lyer en fonction de la répétition chez l'enfant et l'adulte. [Research on the development of perceptions: XL. Progressive changes in the perception of the Müller-Lyer figure as a function of repeated presentation to children and adults.] *Arch. Psychol. Genève*, 1960, 37, 313-413.—The Müller-Lyer figure was presented to children from 5 to 10 years old and to adults. The adjustment method was used without interruption, and repetition was continued until the Ss were tired. The size of the illusion was plotted as a function of the number of times the figure was presented. For 5- and 6-year-old children the initial value of the illusion was small, but the illusion increased with repetition. For 7-year-old children the illusion decreased with repetition, though the initial value was high. For older children also, the illusion decreased. These findings are discussed in relation to Piaget's explanation of the illusion.—*H. C. Triandis.*

845. Olson, Willard Clifford. Child development. (2nd ed.) Boston, Mass.: Heath, 1959. xi, 508 p. \$6.25.—The emphasis is on early, middle, and later childhood with some consideration of infancy and adolescence. Chapters 1 and 2 provide an introduction and overview of development. Chapters 3 and 4 are concerned with physical and motor development. Chapters 5 and 6 with mental and educational achievement. The child as a whole, his relations in the classroom and with his community, and his emotional life are handled in Chapters 7 through 10. "Chapters 11 through 14 present the implications of child development for the teacher . . . for curriculum experiences, for the administration of schools, and for a philosophy of development."—*E. Y. Beeman.*

846. Piaget, Jean. Le rôle de l'imitation dans la formation de la représentation. [The role of imitation in the formation of representation.] *Evolut. psychiat.*, 1962, 27(1), 141-150.—The concepts of Wallon and Piaget are declared similar by the latter, concerning the role of imitation as a link between sensory-motor functions and representational thought. Where Wallon stresses postural functions, Piaget stresses more specific motor functions as the source of subsequent intellectual activities. Where Wallon is more involved in descriptions of pictorial aspects of thought, Piaget is more interested in operational aspects of thought and their transformations, rather

than their patterns. (English summary)—*L. A. Ostlund.*

847. Ratson, Hava. Al hamaba haishi beshir-butehem shel yeladim ketanim. [Personal expression involved in little children's scribbling.] *Ofakim*, 1961, 15, 73-81.—"The first scribbles of a 2 year old have to be seen first of all as motor pleasure causing movements." Children's scribbling is analyzed and evaluated as a method in psychological diagnosis. 9 scribbles of 3 normal healthy children are given and analyzed as means of expression.—*H. Ormian.*

848. Rimerman, Yehuda. Mishmauto shel hat-seva betsiyurey hayeladim. [The significance of color in children's paintings.] *Urim*, 1960-61, 18, 598-602; 1961-62, 19, 84-86.—Recently the child's reaction to colors has been studied in the areas of discrimination of colors, their choice according to developmental stage, and the symbolic-diagnostic value of various colors. Color choice of children coming from different culture patterns in Israel was examined, and as result the value of "color was an [additional] intercultural test" is discussed.—*H. Ormian.*

849. Schenk-Danzinger, Charlotte. (Vienna) Social difficulties of children who were deprived of maternal care in early childhood. *Vita hum. Basel*, 1961, 4(4), 229-241.—34 children, all of whom had spent the 1st 3-4 years in an institution, were referred to the school psychological service because of learning and behavior difficulties. At the time of examination they had been living in their homes a minimum of 2 years. Most of the children, though of average intelligence, had shown retardation in language and in manual ability upon reaching school age. Much of their school difficulties seemed to stem from the fact that they had received little stimulation in the use of language and manipulation material. They also presented problems centered about retarded social development characterized by aggression, hostility, and inability to develop adequate interpersonal relationships.—*J. L. Yager.*

850. Sutton, R. S. (U. Georgia) An appraisal of certain aspects of children's social behavior. *J. teacher Educ.*, 1962, 13, 30-34.—The Syracuse Scale of Social Relations was administered to 90 5th-grade children. Student teachers observed children and kept anecdotal records of socializing experiences. Children tend to select members of their own sex for positive social roles and select peers as sources of help more frequently than members of the family or teacher.—*E. M. Bower.*

851. Tanaka, T. [Developmental study on the comparison of similarity of figures which change in direction and arrangement of elements: VIII. Through the recognition method.] *Jap. J. Psychol.*, 1962, 32, 388-394.—A comparison of the results of simultaneous choice and recognition methods in the study of figural similarity. For children, reversal figures rotated 180 degrees from the standard figure were preferred while adults preferred figures having minimal difference from the standard figure. Change to the adult pattern of recognition of similarity appears to occur around the age of 6 to 8.—*A. Barclay.*

852. Thompson, George G. (Ohio State U.) Child psychology: Growth trends in psychological adjustment. (2nd ed.) Boston, Mass.: Houghton Mifflin, 1962. xxi, 714 p. \$7.75.—This edition of a standard text in the field of child psychology has in-

corporated the main research findings which have appeared since the 1st edition was published a decade ago. The child is viewed as a dynamic, living and developing organism. The book emphasizes the importance of social and environmental factors on human development and theory and research instrumentation have been given more attention. The author's position is probably best stated in his own words; "Although I greatly admire the power and sheer beauty of a well-conceived theory, I am as yet unwilling to sacrifice embarrassing empirical relationships on its altar. I respect hard data, and I want the serious student of child psychology to know of their existence—even though they may constitute loose ends in this area of inquiry."—P. D. Leedy.

853. Wenar, Solveig Cederloo. (Northwestern U.) Simple concept formation in children as related to age level. *Dissert. Abstr.*, 1961, 21(11), 3518-3519.—*Abstract*.

854. Zazzo, René. La dialectique de l'intelligence dans l'oeuvre de Wallon. [Dialectics on intelligence in the works of Henri Wallon.] *Evolut. psychiat.*, 1962, 27(1), 161-173.—"Wallon is best known for his work on psychomotor development and emotion. His more recent work on the genesis of intelligence, in contrast with the work of Piaget, allows us to understand in a new light the originality of his conceptions. The problem of authors is to explain the passage from sensory-motor to discursive intelligence. But while Piaget is concerned with discovering the functional identity of intelligence, in its two aspects and at all stages, Wallon, on the contrary, is concerned with stressing the differences." According to Wallon's views, "speculative intelligence does not simply originate from sensory-motor intelligence. The passage from the one to the other requires new factors, anatomical and functional structures. Imitation is the activity which prepares this passage. Imitation implies participation to the model which relates it to sensory-motor intelligence; but it also operates a split between copy and model which prepares representation, that is discursive intelligence." (English summary)—L. A. Ostlund.

Learning

855. Baer, P. E., & Goldfarb, G. E. (Baylor U. Coll. Medicine) A developmental study of verbal conditioning in children. *Psychol. Rep.*, 1962, 10(1), 175-181.—Performance on a verbal conditioning task, in which Ss required to make up sentences were reinforced for beginning with the pronoun "I," was studied as a function of age and sex. "Boys and girls at the third, sixth, and tenth grade levels were Ss. Results show that the group as a whole conditions, but that significant differences occur between age and sex sub-groups. Two sex-linked developmental gradients are found, with boys decreasing and girls increasing in conditioning with age. The results are discussed in terms of experimenter effects and reinforcement history."—B. J. House.

856. Bandura, A., & Huston, Aletha C. (Stanford U.) Identification as a process of incidental learning. *J. abnorm. soc. Psychol.*, 1961, 63(2), 311-318.—If identification is a process of incidental learning, Ss should reflect greater adoption of behavior of individuals with whom they feel identified. Nursery school children were placed with an experimental model whose behavior they were to observe in

a learning situation (correct choice of 1 of 2 boxes in which a reward had been hidden). Prior to observation-learning, the children were placed with their "model" in 1 of 2 playroom situations: model friendly/model cold. Children exposed to the model behaving in a friendly way patterned their behavior (both as to discrimination in the learning situation as well as marching and verbal) to a greater extent than those exposed to a pre-test "cold" model. Aggressive behavior was imitated with or without model "warmth." Results related to child development.—G. Frank.

857. Di Vesta, Francis J. (Syracuse U.) Effects of mediated generalization on the development of children's preferences for figures. *Child Developm.*, 1962, 33(1), 209-220.—The general hypothesis examined is that a positive preference or attitude toward a previously neutral figure can be developed through mediated generalization. The Ss were 64 4th- and 5th-grade children who were randomly assigned to 2 experimental and 2 control groups. A B-C, A-B, A-C mediation sequences was used. It was concluded that originally neutral labels may gain secondary reinforcing properties which transfer and affect the preferences of other objects to which the labels are attached.—W. J. Meyer.

858. Kuvshinov, N. I. (Pedagogical Inst., Tomsk, USSR) Reshenie trudovykh zadach po pamyati bez opory na obrazets. [The solution of difficult memory tasks without the help of a model.] *Vop. Psikhol.*, 1961, No. 6, 55-62.—The present study was concerned with what kind of ideas a child obtains about a task before he begins work and how this influences his performance. Experiments were carried out on 2 groups of 2nd-grade children. They were required to make a paper object such as a house. Previous experiments had them do this with the object present. One group of children in the present study was shown how to make the object with a verbal explanation. The other group was merely shown the object. Both groups then had to make the object from memory. This was more difficult than the previous experiments, but was possible for the children. On the other hand, the errors and points of confusion made the children more aware of the various aspects of the problem so that on subsequent opportunities to look at the model they could correct their own mistakes.—H. Pick.

859. Patel, A. S. (Baroda, India) Distortion in perception and reproduction of figures as a function of mental set exercised by language labels. *Indian J. Psychol.*, 1961, 36(3), 119-125.—The Ss were 3 groups of 100 9th graders from Baroda, India. Boys and girls were equally represented in each group. Each of the 12 stimulus figures was designed to represent 2 common objects (e.g. spectacle, dumb-bell). Different name-labels were then associated with the same figures when presented to the 2 experimental groups; no names were given to the control group. The Ss were required to reproduce all 12 figures, in any sequence, after 1 to 3 presentations as may be required for complete reproduction. Judges rated accuracy of reproduction. Least distortion occurred in the control group, greatest in the 2 experimental groups and in the direction of the named objects, thereby confirming earlier results of Carmichael et al. on verbal, mental set, and perception. No significance sex differences occurred.—J. T. Cowles.

860. Rosenbaum, Milton E. (State U. Iowa) Effect of direct and vicarious verbalization on retention. *Child Developm.*, 1962, 33(1), 103-110.—"The present study examined the effect of verbalization at the time of observation of objects on recognition and recall one week later. The source of verbalization was varied to include self-verbalization and verbalization by others in the observer's presence. Vicarious verbalizers were either peers or the experimenter. Elementary school children served as Ss. Verbalization by all sources was found to facilitate recognition except in the case of self-verbalization in a chorus of 4. Recall measures yielded no differences among treatments."—W. J. Meyer.

861. Rubinstein, S. IA. Ovosptanii privychek u detei. [On the training of habits in children.] Moscow, USSR: RSFSR Academy Pedagogical Sciences, 1958. 39 p.—The author considers the origin of habits, the establishment of good ones, and the eradication of bad ones.—I. D. London.

862. Staats, Arthur W., Staats, Carolyn K., Schutz, Richard E., & Wolf, Montrose. (Arizona State U.) The conditioning of textual responses using "extrinsic" reinforcers. *J. exp. Anal. Behav.*, 1962, 5(1), 33-40.—"Six 4-year-old Ss were presented with a textual program consisting of 26 words arranged so the word stimuli were gradually combined into sentences and then short 'stories.' . . . The unit of response was the number of new texts acquired as a result of each of the 45-min experimental sessions. It was demonstrated that the program, procedure, and reinforcement conditions produced curves which are analogous to those produced in common operant-conditioning procedures."—Author abstract.

863. Staats, Carolyn K., Staats, Arthur W., & Schutz, Richard E. (Arizona State U.) The effects of discrimination pretraining on textual behavior. *J. educ. Psychol.*, 1962, 53, 32-37.—The study compared 3 groups (12 each) of kindergarten children in learning textual responses. Group 1 had discrimination pretraining with the same words as those in the criterion task, Group 2 with the letters making up these words, and Group 3 no discrimination training. The response analyzed was the number of correct anticipations in 10 trials of a 4-word task. Analysis of variance showed no difference between groups, but a Duncan new multiple range test indicated a significant difference between Group 1 and Groups 2 and 3, but not between the latter. Thus there was positive transfer to a later task involving the same stimuli, but this did not seem due to acquisition of an observing response to the components of the stimulus.—Journal abstract.

864. Takano, Seijun. [A theoretical study of the effect of success upon children's behavior: The effect of patterns and percentages of success and number of pre-experience trials on the maintenance of bar-pressing responses in unsuccessful situations.] *Jap. J. Psychol.*, 1962, 32, 367-380.—The experimental demonstrated that the number of pre-experience trials, the percentage of success, and the pattern of sequence had significant effects upon the number of children's bar-pressing responses in the unsuccessful situation; i.e., fewer pre-experience trials, smaller percentages of success, and irregular sequencing resulted in more bar-pressing responses in unsuccessful situations. Expectancy scores increased and de-

creased differentially as a function of the percentage of successes.—A. Barclay.

865. Włodarski, Z. Eksperymentalne badania pamięci u dzieci. [Experimental examination of the memory of children.] *Psychol. wycho.*, 1961, 4(4), 372-383.—The article reviews a series of projects that stressed the role of words in the process of memorizing which were carried out by students of the University of Warsaw. The experimental group was composed of 140 children (including 40 mentally retarded) who ranged in age from 2 to 14. The general conclusions were: (a) In preschool children, features of the object rather than its position helped recognition. As the experiment progressed, the color of the object became the determining factor. (b) Normal children showed greater resistance to distractions. Their mistakes were determined by the content of the word which accompanied the object. (c) Mentally retarded children were less influenced by previous perceptions and content of the word.—H. Kaczkowski.

866. Wohlwill, Joachim, & Lowe, Roland C. (Clark U.) Experimental analysis of the development of the conservation of number. *Child Developm.*, 1962, 33(1), 153-167.—This study is concerned with the processes operating in the development of the conservation of number. There were 4 conditions of training involving the role of reinforced practice on conservation, of dissociation of biasing perceptual cues, of the effects of addition and subtraction of elements, and a control group. Ss were 72 kindergarten-age children. Although there was an overall increase in nonverbal conservation responses, differences between conditions were not significant. Transfer of conservation learning to a verbal posttest was negligible under all conditions.—W. J. Meyer.

Abilities

867. Dodwell, P. C. (Queen's U., Canada) Relations between the understanding of the logic of classes and of cardinal number in children. *Canad. J. Psychol.*, 1962, 16(2), 152-160.—Children between the ages of 5 and 8 were studied to determine whether some understanding of hierarchical classes is a necessary condition for dealing appropriately with cardinal numbers. Answers to questions which involved simultaneous consideration of a whole class and its 2 component subclasses were compared to performance on the author's number concept test. Correlations were low.—R. S. Davidson.

868. Hebron, M. E. (U. Hull) A factorial study of learning a new number system and its relation to attainment, intelligence, and temperament. *Brit. J. educ. Psychol.*, 1962, 32(1), 38-45.—90 persons of both sexes, about 12 years of age and of average intelligence, learned a number system of 8 digits. Performance was related to personality and intellectual factors, height-weight, schooling, and assignment of roles by peers in a sociometric problem. 4 factors were identified.—B. T. Jensen.

869. Hill, S. D. Chronological age levels at which children solve three problems varying in complexity. *Percept. mot. Skills*, 1962, 14, 254.—Preliminary results concerned with establishing minimal CA levels for solution of 3 problems are reported. Object discrimination oddity, and conditional-oddity

were employed in a modified Wisconsin General Test Apparatus.—*W. H. Guertin.*

870. Krutetskii, V. A. (Akad. Pedagogicheskikh Nauk RSFSR, Moscow) *O nekotorykh osobennostyakh myshleniya shkol'nikov, malospobnykh k matematike.* [Concerning some characteristics of the thinking of pupils with little capacity for mathematics.] *Vop. Psikhol.*, 1961, No. 5, 77-89.—6th- and 7th-grade children with poor mathematical ability were identified by their teachers. From these were selected those who performed relatively well in other subjects. A series of quantitative and verbal tests were given these children and their performance analyzed. "The author has tried to see what role is played in this respect by the visual-imaginative and verbal-logical components in the structure of thinking. . . . 4 types of school children . . . [have been] identified, different as to the relative development [of the] . . . components of thinking. Each type is noted for its specific difficulties, while studying mathematics, and specific mistakes made by the pupil." Suggestions for helping such students are made.—*H. Pick.*

871. Price-Williams, D. R. (London School Economics) *Abstract and concrete modes of classification in a primitive society.* *Brit. J. educ. Psychol.*, 1962, 32(1), 50-61.—Literate and illiterate Bush children were given tasks of grouping animals and plants in as many ways as possible. They also performed sorting tasks. "Using familiar material which they have had an opportunity of manipulating, the evidence suggests that the growth in the capacity to reach the state of 'concrete operations' proceeds at a similar rate in both school and illiterate children." In both groups, the animal tasks showed a decrease of purely concrete reasons for grouping and an increase in abstract reasons. (19 ref.)—*B. T. Jensen.*

872. Torrence, E. Paul (U. Minnesota) *Problems of highly creative children.* *Gifted Child Quart.*, 1961, 5, 31-34.—From the compositions on divergent characters of 5000 elementary school children, several inferences were made about creative children, including sanctions against divergency and uneven development of academic skills. The creative children provided their own motivation for learning. Difficult tasks challenged them, raising the question of grade placement of instructional materials. They were portrayed as searching for meaning in life. Although alienated from their peers and teachers, they maintained a good sense of humor.—*N. M. Chansky.*

873. Zhyikov, S. F. (Akad. Pedagogicheskikh Nauk RSFSR, Moscow) *K probleme perenosy pri izuchenii grammatiki.* [On the problem of transfer in the study of grammar.] *Vop. Psikhol.*, 1961, No. 5, 90-98.—This investigation tried to ascertain whether work on identification of roots of words transferred to identification of suffixes. The investigation was carried out on 1st-grade pupils. Tests of ability to abstract suffixes were given before and after the regular school program covered identification of roots of words. The pretest indicated that the children were generally unable to distinguish a suffix from a root word. Great improvement in suffix identification was shown after the work on word roots. This improvement involved 1 of 3 kinds of transfer: identification of the root leaving the suffix

abstracted, transfer of the operation of abstracting roots to the abstraction of the suffix, and transfer of the operation of abstraction of roots to the abstraction of both roots and endings in more complex cases.—*H. Pick.*

Personality

874. Aronfreed J. (U. Pennsylvania) *The nature, variety, and social patterning of moral responses to transgression.* *J. abnorm. soc. Psychol.*, 1961, 63(2), 223-240.—Reactions to transgression in children was assessed through analysis of a story completion test given to 6th graders. The to-be-completed stories related themes of aggression by children against others which would usually be unacceptable to society. Stories were categorized re: degree of reliance on self or other as source of control. Mother's method of discipline was obtained through interview; the disciplinary methods were divided into the more physically punitive (hitting, yelling at) and the more psychological (withdrawal of love, explanation, etc.) Results demonstrated that in general 'moral behavior' was a function of anticipated external punishment. Self-criticism was viewed as an instrumental response related to such anticipation. Differences re: determinants of moral attitudes and consequent reliance on self or other were found in terms of socioeconomic level.—*G. Frank.*

875. Bandura, A., Ross, Dorothea, & Ross, Sheila A. (Stanford U.) *Transmission of aggression through imitation of aggressive models.* *J. abnorm. soc. Psychol.*, 1961, 63(3), 575-582.—In a previous study (see 37: 856) children imitated the behavior of a model in the presence of the model. The present study investigated the degree of imitation when the model was not present. Degree to which like-sexed model behavior would be followed was also studied. Nursery school children exposed to aggressively behaving models tended to imitate not only their aggressiveness but other behavior as well. There was some confirmation of like-sex imitation. The results were related to the psychoanalytic theory of identification.—*G. Frank.*

876. Bledsoe, Joseph C. (U. Georgia) *Sex differences in mental health analysis scores of elementary pupils.* *J. consult. Psychol.*, 1961, 25(4), 364-365.—". . . elementary school girls tend to rate themselves significantly higher on the Mental Health Analysis than do elementary age boys."—*E. R. Oetting.*

877. Commoss, Harriet H. (Teacher's Coll., Columbia U.) *Some characteristics related to social isolation of second grade children.* *J. educ. Psychol.*, 1962, 53, 38-42.—Some 20 children scoring in the highest quarter of their classes on a sociometric test were compared with 20 children in the lowest quarter with respect to the following characteristics: learning of sex role, certainty in interpersonal relationships, ability to communicate verbally, and eye-hand coordination. Positive relationships between social status and the stated characteristics were hypothesized. Each child copied a short sentence and was presented with the Driscoll Playkit and asked to complete 10 stories. Analysis of the data failed to support the hypothesis of a positive relationship between social acceptance and learning of own sex role but reliably supported the hypotheses related to the other characteristics.—*Journal abstract.*

878. Fawl, Clifford L. (Nebraska U.) **A developmental analysis of the frequency and causal types of disturbance experienced by children.** *Merrill-Palmer Quart.*, 1962, 8(1), 13-18.—Analysis of 12-day-study records from Barker's Midwest data revealed an average of 70 disturbances per record where the child experienced interference, failure, choice conflict, or other unpleasant disruption of feeling tone. Age of S correlated inversely with number of disturbances and socially evoked disturbances, and positively with average duration of disturbance.—E. L. Robinson.

879. Granick, Samuel, & Taylor, Joseph L. (Ass. Jewish Children, Philadelphia) **Prediction of adjustment in a group residence: A pilot study.** *J. Jewish communal Serv.*, 1962, 38(3), 304-311.—A report of an investigation to develop and establish criteria suitable for the prediction of the type of child who is most likely to benefit from admission to a boy's group residence. This preliminary study gives some indication that a rating scale covering the boy's attitude toward placement, his degree of social conformity, his emotional control, the history of his emotional relationship to his parents, their support of his placement, his psychosexual adjustment, his ability to use psychotherapy, and other factors is related to the degree of success or failure in adjustment to the environment of the group residence. Further studies on this as well as upon the degree to which modification of structure, staff, and equipment can be made in the residential environment are being continued.—M. A. Seidenfeld.

880. Hartley, Ruth E., Hardesty, Francis P., & Gorfain, David S. (Long Island U.) **Children's perceptions and expressions of sex preference.** *Child Developm.*, 1962, 33(1), 221-227.—As part of a larger project investigating children's concepts of women's roles, the present study has examined 2 sets of data in an attempt to determine empirically whether children perceive an adult partiality for males and whether any such partiality is reflected in children's expressions of their own sex preference. As a whole these findings seem to call into question the validity of the assumption that a culturally enforced partiality for males is generally operant in children's sex-role identification and development.—W. J. Meyer.

881. Institut für Jugendkunde und Jugendbildung. **Beiträge zur Diagnostik der Persönlichkeit.** [Contributions towards personality diagnosis.] Bremen, Germany: IJJ, 1961. 72 p. DM 4.80.—6 articles commemorate 50 years of existence of Bremen's Institute of Youth Investigation and Education. Topics covered are: chronicle of the Institute (T. Valentiner), mother and child (E. Noltenius), educational problems in children (G. Ehlers), an observation center for disturbed children (H. Schulte, L. Meyer, and M. Vogt), occupational aims and personality development in industrial and trade training (H. Dombrowsky), and treatment of strong- and weak-willed children (T. Valentiner). The demonstrations are partly statistical and partly based on individual case records.—J. C. Brengelmann.

882. Kanner, Leo. **Emotionally disturbed children: A historical review.** *Child Developm.*, 1962, 33(1), 97-102.—Prior to the 19th century there had been little interest in emotionally disturbed children

and it was not until the 1930s that systematic studies were made of severely disturbed children. A major problem emerging from this historical survey involves the meaningfulness of diagnostic categories and the need for greater specificity than that conveyed by the term "emotionally disturbed."—W. J. Meyer.

883. Kanous, Lawrence E., & Cohn, Thomas S. (Wayne State U.) **Relation between heterosexual friendship choices and socioeconomic level.** *Child Developm.*, 1962, 33(1), 251-255.—Using a partial-rank order sociometric procedure, children from Grades 2 through 8 were asked to make choices on 2 situations. Analyses of the opposite sex choices of boys and girls from 2 socioeconomic levels (high vs. low) indicated that more heterogeneous choices were made by the children from the lower socioeconomic group. The results contradict the idea that latency is a biogenetically determined phenomenon and suggest rather that it is at least partially determined by sociocultural influences.—W. J. Meyer.

884. Kitano, Harry H. **Adjustment of problem and nonproblem children to specific situations: A study in role theory.** *Child Developm.*, 1962, 33(1), 229-233.—"This study explored a hypothesis drawn from concepts derived from role theory. The findings indicate that, in situations where role expectations are clear, where there is consensus, and where role prescriptions are readily enforceable, there is a high degree of adjustment on the part of both 'normal' and 'problem' children. It also appears that the diagnosis of a 'problem child' is based on other evidence than that supplied by his or her behavior in this type of specific situation. It is suggested that an analysis of the total situation of the child, including the various demands and expectations placed on him, should be part of any definition of what constitutes a 'problem child.'"—W. J. Meyer.

885. Koch, Helen L. (U. Chicago) **The relation of certain formal attributes of siblings to attitudes held toward each other and toward their parents.** *Monogr. Soc. Res. Child Developm.*, 1960, 25(4, Whole No. 78), 134 p.—Representing a part of a study concerned with the effects upon the child's personality of various formal characteristics of his sibling, this unit reports responses to interview questions of 360 children, 5 and 6 years old, from 2-child, urban, native-born, white, intact families. Attitudes concerning the following are discussed: (a) association with the sibling, (b) quarrels, (c) parent alignments, (d) own and sibling's lot, (e) conditions contributing to stress, and (f) school. (56 ref.)—J. S. Braun.

886. Lynn, D. B. (U. Colorado) **Sex differences in identification development.** *Sociometry*, 1961, 24, 372-383.—This paper contains a theoretical formulation for sex differences in identification development, reviews relevant studies, and presents data generally supporting the position. The theory emphasizes early identification with the mother by both sexes, followed by an early shift to a masculine model by males and a late shift by females. Varied demographic data on public and private hospital patients are employed to support the position.—H. P. Shelley.

887. Maccoby, Eleanor. (Stanford U.) **The taking of adult roles in middle childhood.** *J. abnorm. soc. Psychol.*, 1961, 63(3), 493-503.—The

relationship of reaction to transgression of adolescents and reaction to transgression in their families when they were age 5 was investigated. The Ss are part of a follow-up study (7 years later) on patterns of child rearing (Sears et al., 1957). Imitation of attitudes towards transgression was strongest in Ss whose families were highly nurturant. Sex differences in modes of acquiring rule-enforcing attitudes were found.—G. Frank.

888. Marui, Sumiko. A study on the Cloud Picture Test by children. *Tohoku psychol. Folia*, 1961-62, 20(3-4), 97-103.—The responses of young children are compared with those of adults. Whole responses are different from adults; there is little human response; the pattern is enumerative, not intuitive, and shows greater suggestibility. Children differ according to richness of content, degree of suggestibility, intuitive patterns, degree of form-binding, degree of imagination, and enumeration.—G. Rubin-Rabson.

889. Paivio, Allan. (U. New Brunswick) Personality, success and failure, and preferred degree of public exposure. *Bull. Maritime Psychol. Ass.*, 1961, 10, 50-58.—The technique of allowing a group of 155 children to individually determine the level of light intensity in which they would be exposed to an audience was tested for its reliability as a measure of, and its relation to, personality variables. The results indicated (a) a reliability of .82, (b) no effect of audience size, and (c) a significant tendency for Ss scoring high in audience anxiety to reduce the level of illumination after failure. Substituting a mirror for the audience, or allowing the Ss to manipulate the light intensity themselves, bore no significant relation to success or failure.—J. Bucklew.

890. Pareek, Udai. (National Inst. Education, New Delhi) Developmental patterns of Rosenzweig P-F Study variables in Indian children. *MANAS*, 1960, 7(1), 19-35.—Data from about 1000 children of ages 4-13 reveal interesting developmental trends in Indian children. The categories of extrapunitive and ego-defence, Factors E and I, superego patterns of E-E and M-I predominate all age groups. There is a trend in the decline of extrapunitive with increase in age, with a corresponding increase in intropunitive and impunitive. GCR scores readily rise at age 12 and 13. Decline of E with increase in age takes a bimodal form, the figure reaching very high at the age of 8 and suddenly declining at the age of 9. E and E-E also steadily decrease with advance in age. The various trends have been interpreted.—U. Pareek.

891. Peixotto, Helen E. (Catholic U.) Personality dynamics of American children as revealed by Despert fables (Düs Fables). *Vita hum.*, Basel, 1961, 4(4), 242-248.—The Despert fables (revised and expanded by Ruben Fine) have been found to constitute a satisfactory projective test for use with children 3-8 years of age. It is possible to derive from their production, dynamics of personality, particularly in the areas of rejection, hostility, and maturity. For example, with their use, the responses of clinic children have been found to be more characteristic of defense mechanisms than the responses of normal children. However, the fables do not appear to be adequate for differential diagnosis.—J. L. Yager.

892. Perry, Doris Cahoon. (U. Florida) Self-acceptance in relation to adjustment. *Dissert. Abstr.*, 1961, 22(1), 317-318.—Abstract.

893. Petrie, I. R. J. (Manchester Education Authority) Residential treatment of maladjusted children: A study of some factors related to progress in adjustment. *Brit. J. educ. Psychol.*, 1962, 32(1), 29-37.—23 maladjusted children in a special boarding school were observed for at least 12 months. Progress was compared with various test scores. Not all tests were equally reliable and valid in the sample; improvement was shown on all tests except WISC. Inconsistency in rate of improvement also appeared. (19 ref.)—B. T. Jensen.

894. Salfeld, D. J. Über kindliche Entfremdungserlebnisse. [The alienation experience in childhood.] *Acta paedopsychiat.*, Basel, 1962, 29, 33-40.—Feelings of depersonalization, derealization, and the like are unusual in children, and until puberty, occur only once in 200 cases. Prognosis for remission is good in $\frac{3}{4}$ of the cases—spontaneous cure taking place within weeks or months. Duration of symptoms is shorter than among adults. In addition to psychotherapy, change of environment is indicated. Alienation can be manifested in the presence of any degree of normality. In alteration of consciousness, anxiety is the essential factor producing alienation.—G. Rubin-Rabson.

895. Schneider, Shirley Chichester Sime. (U. Michigan) An analysis of presurgical anxiety in boys and girls. *Dissert. Abstr.*, 1961, 21(12), 3857-3858.—Abstract.

896. Sears, R. R. (Stanford U.) Relation of early socialization experiences to aggression in middle childhood. *J. abnorm. soc. Psychol.*, 1961, 63(3), 466-492.—A follow-up study (7 years after) on the Ss in the original investigation on patterns of child rearing (Sears et al., 1957). Parental attitude towards child rearing and attitudes towards aggression when S was 5 were related to patterns of aggressive behavior and attitudes toward aggression expressed by Ss at age 12. The manner of expressing aggression was seen to be a function of sex of the child and specific familial attitudes.—G. Frank.

897. Stewart, Lawrence H. (U. California, Berkeley) Relationship of two indices of interest stability to self satisfaction and to mother-son identification. *Calif. J. educ. Res.*, 1962, 13(2), 51-56.—29 boys who had taken the Strong Vocational Interest Blank as high school juniors and seniors and again 2½ years later, had, at the 1st testing, made Q sorts on immediate self-perception, on ideal self-perception, and on how they thought their mothers would like them to be. Their mothers also sorted in terms of how they perceived their sons and what they would like them to be. Intercorrelational analysis failed to suggest identification in SVIB patterning.—T. E. Newland.

898. Stith, Marjorie, & Connor, Ruth. (Florida State U.) Dependency and helpfulness in young children. *Child Developm.*, 1962, 33(1), 15-20.—"A time-sampling technique and predetermined categories were utilized to determine the frequency and proportions of helpful and dependent behavior exhibited by 65 preschool children during 1300 2-minute observations. While, as age increased, dependent contacts with adults decreased in both frequency and

proportion, helpful contacts with both adults and children increased significantly. Although dependent contacts with children also increased with the age of the initiator, this change was not statistically significant. The sex of the initiator was not significantly related to either helpful or dependent contacts with either adults or children."—*W. J. Meyer.*

899. Wolff, Sulamith. (Jewish Hosp. Brooklyn) Social and family background of pre-school children with behaviour disorders attending a child guidance clinic. *J. child Psychol. Psychiat.*, 1961, 2(4), 260-268.—43 children were studied to determine how they differed from a national sample of children of similar age. No significant differences were found in occupational class of fathers, employment of mothers, overcrowding in the home, family size, ordinal position, maternal age, and broken homes. 2 factors appeared significant: (a) the parents had experienced deprivation, i.e., loss of one or both of their parents, in their own childhoods; (b) there was a high incidence of psychiatric disturbance in these parents.—*J. M. Reisman.*

900. Wolff, Sulamith. (Jewish Hosp. Brooklyn) Symptomatology and outcome of pre-school children with behaviour disorders attending a child guidance clinic. *J. child Psychol. Psychiat.*, 1961, 2(4), 269-276.—43 children were evaluated 3-6 years following their 1st visit. Most initially presented symptoms were no different from the range of behavior usually found at their age. At follow-up, all types of symptoms had become less frequent with a marked decline in aggressive symptoms in boys and phobic symptoms in girls. On all measures of outcome, boys were assessed as more disturbed than girls. No direct relationship was found between outcome and the number of visits to the clinic.—*J. M. Reisman.*

Parent-Child Relations

901. Anthony, E. James. (Washington U. School Medicine, St. Louis) Impressions of research on parental attitudes and child behavior from the point of view of a psychiatrist. In John C. Glidewell (Ed.), *Parental attitudes and child behavior* (see 37: 913). Pp. 149-153.—Although much research and theorizing has been developed, very little in the way of fresh or original ideas have emerged.—*W. J. Meyer.*

902. Arnon, Yosef. Hahorim vehayeladim begil haneurim bakibuts. [Parents and adolescent children in the kibbutz.] *Ofakim*, 1961, 15, 28-36.—In the summer of 1960 a questionnaire was administered to 7th-12th graders in 6 district kibbutz schools and at the same time to their parents. The aim was to find out "how parents see their children within the framework of kibbutz education and how children evaluate their parents." The main questions asked were: how many times a week do you visit your parents in their rooms, does your child visit you in your room, and is this number of visits sufficient in your opinion. The answers make possible an examination of parent-adolescent conflicts and an evaluation of educating factors (parents, educators, friends) and the educational method accepted in the kibbutz.—*H. Ormian.*

903. Bettelheim, Bruno. *Dialogues with mothers.* New York: Free Press, Glencoe, 1962. 216 p. \$3.50.—

"This book is not a practical guide to child care" but "is meant for those who have read the books and find that the books disagree or don't quite fit their own child and his problem." Consisting of reports of group discussions with parents, this book is basically concerned with "getting them [parents] to analyze a particular situation in their own words, on the basis of their own anxieties, notions and ideas." The recurring question asked of these parents is "what kind of child do you want?"—*J. Walters.*

904. Bronfenbrenner, Urie. (Cornell U.) The changing American child: A speculative analysis. *J. soc. Issues*, 1961, 17(1), 6-17.—An analysis of changes in child-rearing over the past 25 years suggests that parents are becoming more permissive, freer in expression of affection, more inclined to use indirect disciplinary techniques (appeals to reason or to guilt), and that the father tends to be more affectionate and less authoritarian. These phenomena seem to prevail in all social classes so that class differences in child rearing are less distinct. Although such love-oriented techniques are effective in producing well-socialized behavior, they tend to produce adjustment patterns characterized by conformity, anxiety, and diminished aggressiveness. Implications of these observations are discussed.—*A. Barclay.*

905. Bronfenbrenner, Urie. (Cornell U.) Toward a theoretical model for the analysis of parent-child relationships in a social context. In John C. Glidewell (Ed.), *Parental attitudes and child behavior* (see 37: 913). Pp. 90-109.—The concept of optimal level "implies a curvilinear relationship between either parental affection or authority on the one hand and child behavior on the other. . . . At the same time, the critical level—the maximum, the point on the graph at which the slope of the curve changes from positive to negative—is presumed to occur at different levels of parental behavior for the two sexes and to appear at lower levels for girls than for boys." Data showing the relationship between parental power serve as empirical support of the optimal level notion.—*W. J. Meyer.*

906. Brown, Mortimer. (Vanderbilt U.) Attitudes and personality characteristics of mothers and their relation to infantile colic. *Dissert. Abstr.*, 1961, 22(1), 319.—*Abstract.*

907. Bunch, Marion E. (Washington U., St. Louis) Impressions of research on parental attitudes and child behavior from the point of view of a psychologist. In John C. Glidewell (Ed.), *Parental attitudes and child behavior* (see 37: 913). Pp. 154-158.—The conference has provided excellent techniques for the identification of parental attitudes. What is needed now is an examination of how these attitudes are translated into parental behaviors and in turn how the child's behavior is influenced by these procedures. Similarly, there is a need to study how the child's behavior influences parental behavior.—*W. J. Meyer.*

908. Cass, Loretta K., & Wessen, Albert F. (Washington U., St. Louis) Determinants of parental attitudes. In John C. Glidewell (Ed.), *Parental attitudes and child behavior* (see 37: 913). Pp. 207-214.—Recent research suggests that the distinction between intrapsychically and environmentally located variables is artificial and that both are important in any study of the source of parental atti-

tudes. Thus, the origins of parental attitudes can be traced to definable aspects of the parents' experience and we should examine the specific way in which one's broad cultural background affects this experience. The variable of social class is analyzed as an example of this approach.—*W. J. Meyer.*

909. **Emmerich, Walter.** (Purdue U.) **Variations in the parent role as a function of the parent's sex and the child's sex and age.** *Merrill-Palmer Quart.*, 1962, 8(1), 3-11.—For middle-class parents of children ranging in age from 6 to 10 years, a questionnaire study of parental role characteristics showed that mothers were more nurturant and less restrictive than were fathers. Parents exerted more power toward same-sex than toward opposite-sex children. A finding of cyclical variation in parental nurturance-restriction as a function of the child's age is interpreted with caution.—*E. L. Robinson.*

910. **Fanshel, David, & Maas, Henry S.** (Child Welfare League America, NYC) **Factorial dimensions of the characteristics of children in placement and their families.** *Child Developm.*, 1962, 33(1), 123-144.—All of the 882 children constituting the sample, had been separated from their families and placed in agency-supervised families or institutions for foster care or adoption. These children were placed because of their dependency and not because of illness or delinquency. Data on the children and their families were factor analyzed. Long time care was found to be one factor of considerable importance to the children's sense of self-identity.—*W. J. Meyer.*

911. **Farber, Bernard.** (U. Illinois) **Marital integration as a factor in parent-child relations.** *Child Developm.*, 1962, 33(1), 1-14.—The generally low correlations between indices of marital relations and the adequacy of parent-child interactions may be attributable to inappropriate indices for probing the marital relationship. A sample of 109 families, all of which had at least one normal child, aged 11-16, and 1 retarded child, were administered 5 inventories which measured marital integration as well as parental perceptions of their children. It was concluded that the more direct measures of parental perceptions of their children along with indices of marital relations provide a productive approach to understanding parent-child interactions.—*W. J. Meyer.*

912. **Glidewell, John C.** (Washington U., St. Louis) **On the analysis of social intervention.** In John C. Glidewell (Ed.), *Parental attitudes and child behavior* (see 37: 913). Pp. 215-239.—"Intervention occurs whenever a new class of objects, organisms, persons, feelings, ideas, skills are introduced or an old one withdrawn; whenever new ways of involving resources are introduced or old ones withdrawn." The ways in which parents and children might influence each others behavior is examined in terms of the social intervention notion.—*W. J. Meyer.*

913. **Glidewell, John C. (Ed.)** (Washington U., St. Louis) **Parental attitudes and child behavior.** Springfield, Ill.: Charles C Thomas, 1961. xx, 253 p. \$8.50.—The contributions to this volume, (see 37: 901, 905, 907, 908, 912, 914, 915, 916, 919, 923, 927, 931, 1344, 1920) had been originally presented at a workshop-type conference conducted by the Social Science Institute of the Washington University of

St. Louis. In Section I, original research relevant to maternal attitudes and behavior is presented. Section II is concerned with the current status of research in this area and needs for future research. Section III consists of papers prepared after the conference which were designed to contribute to the definition of problems and to the development of proposals for the next phases of contribution toward a science of parent-child relations.—*W. J. Meyer.*

914. **Gouldner, Alvin W.** (Washington U., St. Louis) **Impressions of research on parental attitudes and child behavior from the point of view of a sociologist.** In John C. Glidewell (Ed.), *Parental attitudes and child behavior* (see 37: 913). Pp. 159-164.—Despite the high level of technical sophistication in the construction of paper-and-pencil tests there is a need for studies in naturalistic settings. There is a need for "more studies which are concerned with the identification of differing modes of organization of the American family, with an effort to relate these, and their different needs to the consequent patterns or problems manifested in child behavior."—*W. J. Meyer.*

915. **Grant, Quentin Rae, & Kantor, Mildred B.** (Washington U. School Medicine, St. Louis) **Some limitations of the effects of maternal attitudes on child behavior.** In John C. Glidewell (Ed.), *Parental attitudes and child behavior* (see 37: 913). Pp. 183-187.—Research on parent attitudes and child behavior should "take the behavior of the child as the dependent variable and to study the effect of the attitude-behavior-perception complex on it; and to study the relationship defined above in terms of the following factors: (a) personal factors, such as health and childhood influence; (b) socio-cultural factors, such as economic position . . . and (c) family factors, such as the number of children, age of children."—*W. J. Meyer.*

916. **Hamblin, Robert L., & Vanderplas, James M.** (Washington U., St. Louis) **Some notes on the strategy of research.** In John C. Glidewell (Ed.), *Parental attitudes and child behavior* (see 37: 913). Pp. 188-206.—"We have proposed that the goal of research on parent-child relations is to isolate the controlling variables which account for the major portion of variation in parent-child relations. We have proposed that this goal can be better approached by 1) further developing reliable definitions of the concepts used to identify the significant variables, 2) attend to methods of increasing the reliability of measuring devices, but 3) budgeting theory development and data collection to provide better balance and greater opportunity for creative theory development based on data, 4) quantitatively assessing the proportionate degree of specific multivariate relations, and 5) employing experimental methods to demonstrate causation."—*W. J. Meyer.*

917. **Hartup, Willard W.** (State U. Iowa) **Some correlates of parental imitation in young children.** *Child Developm.*, 1962, 33(1), 85-96.—Having developed a measure of like-sex parental imitation in preschool children, the relation of this measure to sex-typing, sex of child, CA, and maternal attitudes was explored. The Ss were 29 girls and 34 boys, ages 3-6 and 5-6. A significant relation between imitation of the like-sex parent and appropriate sex-typing was found for girls, but not for boys. 3 maternal attitude scales reflecting authoritarian at-

titudes toward children and family life were positively related to girls' imitation of the mother. Maternal attitudes reflecting authoritarian, intrusive or suppressive attitudes were related to imitation of the father by boys.—*W. J. Meyer.*

918. Heilbrun, Alfred B., & McKinley, Roger. (State U. Iowa) **Perception of maternal child-rearing attitudes, personality of the perceiver, and incipient psychopathology.** *Child Developm.*, 1962, 33(1), 73-83.—The hypothesis that the child-rearing attitudes attributed to their mothers by young daughters with presumed incipient psychopathology will be more deviant than the perceived attitudes of young normal daughters was supported. The data are based on differences in perception of mother as seen by one group of college females who showed abnormal elevations on the MMPI with a group of college females who did not.—*W. J. Meyer.*

919. Hunt, Raymond G., & Winokur, George. (Washington U. School Medicine, St. Louis) **Some generalities concerning parental attitudes with special reference to changing them.** In John C. Glidewell (Ed.), *Parental attitudes and child behavior* (see 37: 913). Pp. 174-182.—Attitudes can be expressed behaviorally in a variety of specific ways. Research should be directed toward categorizing such behaviors and examining their influence on child behavior. Approaches to modifying parent behavior and, subsequently, parent attitudes, are explored.—*W. J. Meyer.*

920. Kelley, H. H., & Ring, K. (U. Minnesota) **Some effects of "suspicious" versus "trusting" training schedules.** *J. abnorm. soc. Psychol.*, 1961, 63(2), 294-301.—The structure of child training was translated into the paradigm of learning in a human engineering situation. The parent is conceived as having a role for the trainee (the child) to learn and employs a schedule of reinforcement. The "suspicious" training schedule involved the trainer always assuming an incorrect response has been given, and uses punitive action (electric shock); "trusting" schedule assumes a correct response, reward being a green light to proceed. Ss were college students; the task involved deciding which of 2 statements reflected greater psychopathology. S had the choice of revealing his selection or not. The hypothesis was that the S exposed to the "suspicious" routine would be more inclined to bring his response to the attention of the evaluator to correct the impression of being wrong, and to more readily learn to adopt trainers' frame of reference. In general, the results support the hypotheses.—*G. Frank.*

921. Lavin, David Edwin. (New York U.) **Parent decision processes in child rearing: A comparison of individual and group performance.** *Dissert. Abstr.*, 1961, 21(10), 3182-3183.—*Abstract.*

922. Lefkowitz, M. M. (Rip Van Winkle Found., Hudson, N. Y.) **Some relationships between sex role preference of children and other parent and child variables.** *Psychol. Rep.*, 1962, 10(1), 43-53.—Norms for 421 boys and 403 girls were established on a Games and Activities Preference List (GAP). A number of variables were compared for deviant and nondeviant sex role preference groups. Significant findings were that nondeviant boys have nurturant mothers, discipline by both parents, higher social status, higher intelligence, and higher identification

with own sex than deviant boys. Several hypotheses were discussed in relation to the data.—*B. J. House.*

923. Loevinger, Jane, & Sweet, Blanche. (Washington U. Medical School, St. Louis) **Construction of a test of mother's attitudes.** In John C. Glidewell (Ed.), *Parental attitudes and child behavior* (see 37: 913). Pp. 110-123.—The Family Problems Scale, a partially disguised objective test intended primarily for use with mothers, yields 4 homogeneous clusters of attitudes: authoritarian Family Ideology (AFI), Conventionality-Anxiety (C-A), Orderliness, and Rejection of Woman's Biological Role (RB). Of the 4 clusters, AFL is by far the most salient both statistically (it has the highest coefficient of homogeneity) and in terms of the psychological implications of the attitudes for child rearing practices.—*W. J. Meyer.*

924. Lynn, R., & Gordon, I. E. (Exeter U.) **Maternal attitudes to child socialization: Some social and national differences.** *Brit. J. soc. clin. Psychol.*, 1962, 1(1), 52-55.—As in the United States, middle-class mothers were found to be more permissive and less punitive in socializing their children than working-class mothers. British mothers as a whole were found to be less permissive and more punitive than American mothers.—*C. M. Franks.*

925. Platt, Henry; Jurgensen, Gretchen, & Chorost, Sherwood B. (Devereux Found., Devon, Pa.) **Comparison of child rearing attitudes of mothers and fathers of emotionally disturbed adolescents.** *Child Developm.*, 1962, 33(1), 117-122.—"Normative data for the Inventory of Family Life and Attitudes, an adaptation of the Parental Attitude Research Instrument (PARI), was compiled for a population consisting of 129 mothers and 132 fathers of adolescents, with behavioral and educational adjustment problems, in residential treatment at the Levereux Schools. Significant differences were found between the scores of mothers and fathers on 12 of the 23 scales of the Inventory. Attitudes of Authoritarian Control and Parental Warmth were compared for the fathers and mothers. The Authoritarian Control scores for fathers were significantly higher than those of mothers. No significant difference was found between Parental Warmth scores of mothers and fathers."—*W. J. Meyer.*

926. Robbins, Lillian Cukier. (New York U.) **Parental recall of aspects of child development and of child-rearing practices.** *Dissert. Abstr.*, 1961, 22(1), 348.—*Abstract.*

927. Schaeffer, Earl S. (National Inst. Mental Health, Bethesda, Md.) **Converging conceptual models for maternal behavior and for child behavior.** In John C. Glidewell (Ed.), *Parental attitudes and child behavior* (see 37: 913). Pp. 124-146.—"A number of researches that appear to be converging upon similar parsimonious conceptual models for the universes of maternal behavior and social emotional behavior of the child have been reviewed here. A law of neighboring has been used to develop organizations of several sets of data. A hypothetical conceptual model for maternal behavior, with reference dimensions of love-hostility and autonomy-control, has been proposed."—*W. J. Meyer.*

928. Srivastva, Suresh Chandra. (U. Michigan) **Intergenerational transmission of motives.** *Dissert. Abstr.*, 1961, 21(12), 3876-3877.—*Abstract.*

929. Stein, Jean F., & Longnecker, E. D. (Philadelphia Child Guidance Clinic) **Patterns of mothering affecting handicapped children in residential treatment.** *Amer. J. ment. Defic.*, 1962, 66 (5), 749-757.—The Parental Attitude Research Instrument was administered to 115 child-care staff members of a residential school for retarded, brain-damaged, and emotionally disturbed children, and to 37 mothers of children in residence. A comparison of own mothers and mother substitutes on each of 23 subscales showed a consistent difference of opinion among groups on all the 16 Factor A (Authoritarian-Control) scales. Own mothers and psychiatric staff members were least in favor of authoritarian-controlling attitudes; teachers, unit supervisors, and nurses were next; and housemothers and attendants were most in favor. Absolute mean differences were smaller, and the rankings of high- and low-scoring groups were less consistent, for the scales making up the other 2 factors: Factor B, (Hostility-Rejection), and Factor C (Democratic Attitudes). Analysis of attitudes did not support the assumption that the children met a uniformly lower level of achievement demand in parent substitutes at school. Instead, they pointed to important discrepancies among the kinds of achievement expected by own parents and parent substitutes of different ages and educational backgrounds.—V. S. Sexton.

930. Stineman, William Frederick. (St. Louis U.) **An analysis of urban and rural boys' evaluation of their fathers.** *Dissert. Abstr.*, 1961, 21(10), 3184.—Abstract.

931. Stringer, Lorene A., & Pittman, David J. (St. Louis County Health Dept., Mo.) **The unmeasured residual in current research on parental attitudes and child behavior.** In John C. Glidewell (Ed.), *Parental attitudes and child behavior* (see 37: 913). Pp. 167-173.—A factor considered of major importance which has been lacking in parent attitude research concerns the parents' experiences with their own parents. Thus a major determinant of parent-child relations may well be the quality of the parent-grandparent relationship.—W. J. Meyer.

932. Tyler, Forrest B., Tyler, Bonnie B., & Rafferty, Janet E. (Southern Illinois U.) **Need value and expectancy interrelation as assessed from motivational patterns of parents and their children.** *J. consult. Psychol.*, 1961, 25(4), 304-311.—A complex process of scoring by example is developed to rate need value and expectancy for 45 children and 90 parents. Intercorrelations indicate that need value and expectancy are specific to the need category under study and to age and sex of Ss.—E. R. Oetting.

933. Vincent, Clark E. **Unmarried mothers.** New York: Free Press Glencoe, 1961. x, 308 p. \$6.00.—Results of a study of 736 unwed mothers drawn from private practice (175), a Salvation Army maternity home (189), and a county hospital (372) in Alameda County, California, during 1954. Ss were studied in relation to: socioeconomic, age, racial, and educational variables; personality patterns; familial factors; and adoption aspects. (193 ref.)—D. G. Brown.

934. Yampey, Naim, & de Hojman, Raquel K. **La relación materno-filial en el periodo del recién nacido: Investigación por medio de entrevistas grupales.** [The mother-child relation in the post-

natal period: An investigation by means of group interviews.] *Acta neuropsiquiat. Argent.*, 1961, 7(3), 184-186.—Mothers were organized into discussion groups of 6. The results of the discussions over a period of 6 months are presented. Such groups should be incorporated into every maternity service, since they perform a valuable prophylactic function for the future mental health of the child by correcting initial defects in the mother-child relation and by helping to resolve difficulties arising from maternal conflicts and inexperience.—W. W. Meissner.

935. Zurich, Michael. (Texas Woman's U.) **Relationship between maternal behavior and attitudes toward children.** *J. genet. Psychol.*, 1962, 100, 155-165.—This study sought to test the hypotheses that (a) maternal attitudes toward children are related to selected behaviors of mothers, observed in interaction with their children and (b) maternal behavior is independent of the sex of the child with whom the mother interacts. The Ss were 40 middle-class mothers who were white, American born, 20-35 years old, and full-time homemakers. Laboratory observations of mother-child interaction were conducted through a 1-way vision mirror in the child study laboratory at Texas Woman's University. Each mother-child pair came to the laboratory for a 30-minute period of observed interaction, recorded under predetermined categories. Of the 272 comparisons made by means of Spearman rank correlation coefficients computed between frequencies in the 17 maternal behavior categories and the 16 attitude subscales, 12 evidenced significant relationships at the .05 level or beyond. Of the 17 behavior categories, only 2 showed a significant relationship ($P < .05$) with the sex of the child when the median test was applied to frequencies of maternal contacts with sons and daughters.—Author abstract.

ADOLESCENCE

936. Amatora, Mary. (St. Francis Coll., Fort Wayne, Ind.) **Home interests in early adolescence.** *Genet. Psychol. Monogr.*, 1962, 65, 137-174.—A study of home interests in early adolescence was based upon replies of 674 boys and girls in 12 schools in 10 different states in widely separated geographical regions of the United States. Data were analyzed according to 1st, 2nd, and 3rd choices of interest; according to grade level; and according to sex. 23 categories of interest emerged for the boys, and 21 for the girls. For the boys, the 10 highest ranking interests were television, family, hobbies, play, radio, pets and animals, work, sports, reading, and food in that order. Rank order of the highest 10 for girls were television, work, cooking, family, hobbies, reading, radio, baby-sitting, play, and music.—S. M. Amatora.

937. Bril, F. (Mental Health Clinic, Ramat Hen) **Beayot nafshiyot begil hahitbagrut.** [Mental problems in adolescence.] *Dap. refuim*, 1961, 20, 475-480.—Psychology and psychopathology as well as treatment methods in the adolescent period are summarized from the psychoanalytical point of view; adolescence is explained as an existential problem. The therapeutic approach is explained on the basis of seeing adolescence as a period of crisis. (English & French summaries)—H. Drmian.

938. Dechêne, Hans C. (Theresienstr. 25, Munich, Germany) **Über jugendlichen Reisedrang.** [On

the youthful urge to travel.] *Z. exp. angew. Psychol.*, 1961, 8(4), 461-507.—Questionnaires and short essays revealed a stronger urge to travel in the younger group (age 15) than in the older group of Ss (age 19). In both groups 3 motives, not mutually exclusive, were clearly distinguishable: a general tendency to be some other place, tension within the ego and search for the "you," and an attempt to accelerate maturation.—*W. J. Koppitz*.

939. de Radelli, Amalia L., & Zac de Filc, Sara. *Problemática y desarrollo psicosexual del joven*. [Psychosexual problems and the development of youth.] *Acta neuropsiquiat. Argent.*, 1961, 7(3), 188-190.—Study of several groups of secondary school students suggests that the lack of integration between the affective and sexual spheres reflects the need for: (a) better knowledge of sexuality, integrated within the framework of the family, education, and society; (b) control of sexual conduct, recognizing that the norms of previous generations were regressive and accepting greater sexual liberty based on scientific knowledge and acknowledgement of sex in its totality; (c) elimination of taboo attitudes in communicating about sex; and (d) a clear distinction between sexual promiscuity and sexual liberty.—*W. W. Meissner*.

940. Elitsur, Barukh, & Pade, Benjamin. *Hagoremim hakeshurim bahalikhat noar lemoaddon shekhunati*. [Factors connected with youth attendance at a quarter club.] *Megamot*, 1962, 12, 89-91.—A survey carried out on a random sample of 275 children 10-16 years old. Inasmuch as the club is considered interesting and the children are socially active, the probability of attendance is high. The amount of free time and family background do not influence attendance. (English summary)—*H. Ormian*.

941. El Koussy, A. H. (Cairo, Egypt) *The characteristics of rural and urban adolescents in Egypt*. *World ment. Hlth.*, 1961, 13(1), 15-20.—Attitudes toward self and environment, and aims and expectations were content-analyzed from protocols of 800 students in rural and urban areas. It was found that "urban groups . . . are similar. . . . breakaway from the family starts earlier with boys than with girls and earlier with urbans than with rurals. . . . there is on the whole adherence to the family which tends to be both protective and domineering . . . respect for older members of the community and deep regard for parents and the family. . . . self evaluation reflects more or less traditional standards . . . than comes from the standards derived from peers."—*J. C. Franklin*.

942. Garelli, Maritha, & Pousseur, Nicole. *Image de soi, image des autres chez l'adolescent*. [Image of the self and of others among adolescents.] *Enfance*, 1961, No. 4-5, 313-380.—Selected TAT plates were used with 60 males and 60 females, ages 13-20. Protocols were analyzed in terms of objects, persons, content, relations, and the Ss' relations to the task. Baumgarten's proverbs test was used with 30 boys and 24 girls, ages 14-18. All Ss had had poliomyelitis. Results are tabulated extensively, sample protocols and profiles are presented, and numerous tentative inferences are made. Major conclusions are that males are chiefly concerned with their occupational future and their adaptation to society. They know too little about occupational opportunities, are fearful of society, and are uncertain. Girls are less

concerned with their vocational future and more with self-actualization. Both boys and girls have high levels of aspiration and an inclination to distrust themselves.—*S. S. Marzolf*.

943. Harmin, Merrill. (New York U.) *Have adolescents changed? A consideration of possible changes in adolescents in recent years*. *Dissert. Abstr.*, 1961, 21(10), 3181.—*Abstract*.

944. Khanna, Adarsh. (National Inst. Education, New Delhi) *A study of friendship in adolescent boys and girls*. *MANAS, Delhi*, 1960, 7(1), 3-18.—300 adolescents of mean age 13.5 years were administered a questionnaire. Growth in age is characterized by narrowing of the wide circle of friends. Early adolescence is characterized by friendship with the same sex. Talking together is the most common occupation of friends. Factors in the formation of friendship are: similar socioeconomic status, similar achievement, same age and same neighborhood. Traits emphasized both by boys and girls for social acceptance were: clever in studies, good nature, honest, kind, helping nature, same age, social nature, good habits, cheerful nature, same school subject, good singer, sympathetic, beautiful. (25 ref).—*U. Pareek*.

945. Khanna, Adarsh. (National Inst. Education, New Delhi) *A study of social rejection in adolescent boys and girls*. *MANAS, Delhi*, 1960, 7, 45-65.—"The investigation has covered 300 adolescent boys and girls reading in 8th and 9th grades. The factors responsible for the rejection of the peers have been discussed in relation to the socio economic status, age and sex. . . . a significant percentage of girls see teachers and parents as interfering in their rejection of the peers."—*U. Pareek*.

946. Lief, Harold I., & Thompson, William G. *The prediction of behavior from adolescence to adulthood*. *Psychiatry*, 1961, 24(1), 32-38.—Predictions on the adult adjustment of 17 Negro youths made by 2 psychiatrists on the basis of material obtained in 1938 by Allison Davis and John Dollard (*Children of Bondage: The Eighth Generation*) were checked against the findings of a 15-year follow-up. Methodological problems in prediction research are discussed. Results are illustrated by 2 case reports. Errors resulted primarily from overlooking or underestimating personality strengths.—*C. T. Bever*.

947. Livson, Norman, & McNeill, David. (U. California, Berkeley) *Physique and maturation rate in male adolescents*. *Child Developm.*, 1962, 33, 145-152.—"With a sample of 177 males drawn from 3 longitudinal growth studies, an attempt was made to replicate earlier reports that maturation during adolescence proceeds more rapidly for mesomorphs than for ectomorphs. Using subgroups of contrasting somatotypes, the obtained differences in age at reaching 90% of mature height (an index of maturation rate) is consistent in direction with the previous work but of small and insignificant magnitude."—*W. J. Meyer*.

948. Nixon, Robert E. *An approach to the dynamics of growth in adolescence*. *Psychiatry*, 1961, 24(1), 18-31.—Psychiatric observation of 600, psychologically normal, female Vassar College students revealed an organic developmental step during mid-adolescence: "the advent of self-cognition." Illustrated by 3 case histories, this hypothesis is placed

in its theoretical perspective and is proposed as the basis for a 3-part typology of "acceptors," "compilers," and "rebels."—C. T. Bever.

949. Peck, R. F., & Galliani, C. (U. Texas) **Intelligence, ethnicity and social roles in adolescent society.** *Sociometry*, 1962, 25(1), 64-72.—"The general purposes of this study were to investigate the relationship of intelligence to social visibility, the differentiation of different social role groups according to their intelligence, and the possibility of ethnic influences on such social visibility. Three Texas communities supplied the sample of 1217 eighth-grade boys and girls both Anglo-American and Latin-American." Intelligence is generally associated with visibility and is related to some roles and not to others. Adolescents are discriminating in their judgments of role assignments. "Ethnic factors, however, decidedly bias the judgments of adolescents in these mixed communities." Anglos are disproportionately more likely than Latins to be named to any role.—H. P. Shelley.

950. Rabinow, Irving. (Jewish Child Care Ass., NYC) **The significance of structure in a group residence program.** *J. Jewish communal Serv.*, 1962, 38(3), 297-303.—The author presents his views on the role of structure in a group residence program carried on in 6 residential units for adolescents. He emphasizes the importance of giving proper consideration to the unique needs of the young person and the significance of the various elements structured into the on-going program and philosophy of the treatment environment.—M. A. Seidenfeld.

951. Shapir, Avraham. (Mental Health Clinic, Ramat Hen) **Tipul nafshi begil hahitbagrut.** [Mental treatment in adolescence.] *Dap. refuim*, 1962, 21, 53-57.—Following Anna Freud's views on adolescence as "destruction of past identifications and creation of new, mature ones." 2 cases of adolescents with psychopathological syndroms are presented to show how they can be helped in overcoming the adolescent crisis of identification. (English & French summaries)—H. Ormian.

952. Shilo, Ilan. (Hadassah Medical Organization, Jerusalem) **Seker al hathalat havevet ben benot batey hasefer birushalayim.** [Survey on the age of menarche in school pupils in Jerusalem.] *Harefuah*, 1960, 59, 305-307.—In 1958-59 the average age of 13.9 was found as the age of menarche by inquiry of 2832 girls in the 7th-10th grades. Girls of occidental origin had a significantly earlier onset of menstruation (13.5) than those of oriental origin (14.0), whereas girls of Israel-born fathers are between these 2 groups (13.8). The menarche of girls from lower income classes appears at age 14.2, whereas in those from higher income classes, it appears at age 13.8½. Additional studies are suggested. (English & French summaries)—H. Ormian.

953. Straus, Murray A. (U. Minnesota) **Conjugal power structure and adolescent personality.** *Marriage fam. Liv.*, 1962, 24, 17-25.—The theory was submitted that "variations in conjugal power structure are functionally interrelated with the personality of the adolescent participating in the family system." Hypotheses drawn from this theory were tested with data representing the nonfarm 11th- and 12th-grade male population of a Wisconsin county. Findings and discrepancies from theory were discussed in detail.—L. Shatin.

954. Van Krevelen, Alice. (Grinnell Coll.) **Characteristics which "identify" the adolescent to his peers.** *J. soc. Psychol.*, 1962, 56, 285-289.—65 adolescent girls in a summer camp were asked to write down 5 characteristics which would best describe a camping friend to a person who did not know the friend. The Ss were asked not to use age or physical characteristics such as hair and eye color. The campers had been living with each other for 7 weeks at the time the study was done. It was assumed that the personality traits used most often in the descriptions would throw some light on the characteristics considered important by adolescents in evaluating one another. The results showed differences among the 13-, 14-, and 15-year-olds in the frequency with which they used various characteristics in their descriptions. For the group as a whole, the characteristics which were most often used in the descriptions of other campers could be subsumed under such categories as good natured, peppy, full of fun, and cheerful. Other categories most often used were consideration for others, sense of humor, and friendliness.—Author abstract.

955. Webb, Allen Paul. (U. Southern California) **Sex-role preferences of early adolescents in relation to adjustment.** *Dissert. Abstr.*, 1961, 21(12), 3859-3860.—Abstract.

956. Zohar, Ezra, & Rieher, Ezra. (Tel Hashomer Governmental Hosp.) **Gil hofaat havevet baedot hayehudiyot beyisrael.** [The age of menarche in different Jewish communities in Israel.] *Harefuah*, 1960, 59, 303-305.—The age of menarche was determined by interviewing 1000 healthy young women at the beginning of their military service (average age 18). The overall mean was found to be 13.287 (± 0.43) years. No significant differences were found between ethnic groups or between girls born in Israel and abroad. Evidently, ethnic and climatic factors do not influence the age of menarche. (English & French summaries)—H. Ormian.

MATURITY & OLD AGE

957. Axelrod, S., & Eisdorfer, C. **Senescence and figural after-effects in two modalities.** *J. genet. Psychol.*, 1962, 100, 85-91.—Visual and kinesthetic aftereffects were measured at 0, 20, 40, 60, 90, and 120 sec. after 60-sec. inspection periods in senescent and young adult men (total N = 65). No significant differences between 2 groups were obtained. Intermodality correlations were uniformly negative and mostly nonsignificant. The results were interpreted as failing to support the assumptions that (a) susceptibility to aftereffects is a direct correlate of the efficiency of CNS functioning, and (b) there is a general personality or physiological basis for susceptibility to aftereffects across modalities.—Author abstract.

958. Birren, James E., Riegel, Klaus F., & Morrison, Donald F. (National Inst. Mental Health) **Age differences in response speed as a function of controlled variations of stimulus conditions: Evidence of a general speed factor.** *Gerontologia*, 1962, 6(1), 1-18.—30 young and 20 elderly Ss were compared in a standardized experimental context which systematically varied the complexity of stimuli while keeping the response form constant. The Ss task was to respond serially to 1 of 10 signal lights by pressing 1 of 10 buttons. A total of 22 experi-

mental conditions were used ranging from simple movement and reaction times through numbers, letters, colors, symbols, and word relationships of a pre-determined nature. Under all experimental conditions the elderly Ss were slower than the young. The largest age differences in speed appeared for the superordinate, coordinate, and part word relations and for the color and color symbol associations. The smallest differences were found for choice reaction time and adjective word relations. Age differences in speed of response were not limited to the simple motor aspects of tasks but extensively involved the verbal process. Older Ss "tend to show a characteristic slower speed response, whereas young adult subjects are more task-specific in their response speed." (15) —L. Shatin.

959. Blenker, Margaret. Control groups and the "placebo effect" in evaluative research. *Soc. Wk.*, 1962, 7(1), 52-58.—2 designs developed for research with aging populations are described and the placebo effect is discussed.—G. Elias.

960. Conrad, Frederick A. (U. Arizona) Sex roles as factors in longevity. *Sociol. soc. Res.*, 1962, 46(2), 195-202.—Sex differences in longevity and recent increases in such differences have been attributed to constitutional differences. This hypothesis needs further testing against other factors in the sociocultural environment. The purpose of this study was to indicate the relation of sex roles to sex mortality differentials and the need of exploring the sociological and psychological aspects of the problem.—C. W. Page.

961. Cowen, Emory L., Reimanis, Gunars; Davol, Stephen H., & Stiller, Alfred. (U. Rochester) The social desirability of trait descriptive terms: Two geriatric samples. *J. soc. Psychol.*, 1962, 56, 217-225.—Social desirability (S-D) ratings for 118 trait descriptive adjectives were obtained from an institutional and a community geriatric sample each consisting of 40 white male Ss ranging from about 60-80 years of age. S-D perceptions of these groups were compared to each other and to those of (a) younger medical control patients, (b) a relatively "intact" schizophrenic group, and (c) college males. Both older groups were found to rate positive and negative adjectives significantly more favorably than did any of the other reference groups. This response tendency, which was interpreted as reflecting a denying, whistling-in-the-dark type of adaptation, was more extreme in the case of the domiciliated group. The geriatric samples were also more variable in their rating behaviors than the other groups. Despite the communalities between the 2 geriatric samples in comparison to the other normative groups, the data suggested that the S-D perceptions of the community oldersters were closer to the mainstream of the population-at-large.—Author abstract.

962. de Ropp, Robert S. Man against aging. New York: Grove, 1962. 305 p. \$.75 (paper).—A paperback edition of the 1960 edition.—E. Y. Beeman.

963. Fletcher, H. J., & Mowbray, J. B. (U. Wisconsin) Note on learning in an aged monkey. *Psychol. Rep.*, 1962, 10(1), 11-13.—Performance of a 34-yr.-old rhesus monkey on 10 simple object discrimination problems was inferior to that of 2 equally naive but younger controls.—B. J. House.

964. Glasser, Paul H., & Glasser, Lois N. Role reversal and conflict between aged parents and their children. *Marriage fam. Liv.*, 1962, 24, 46-51.—The personal problems of Jewish clients who requested aid from a metropolitan social agency were explored from the standpoint of the economic dependency of the aged parent upon the child.—L. Shatin.

965. Gruen, Arno. (Maimonides Hosp., Brooklyn, N. Y.) Psychologic aging as a pre-existing factor in strokes. *J. nerv. ment. Dis.*, 1962, 134(2), 109-116.—"Comparison of a stroke group with an older, non-stroke group on tests of rigidity, affective coarctation, somatic pre-occupation, drive, logical thinking and so on indicated that psychologic factors associated with old age were also characteristic of the behavior of the stroke group. Since these features in the stroke group were not directly related to differences in degree of sensory and motor impairment, we believe that a psychologic "aging" process predates the actual stroke occurrence, and may be an early manifestation of cerebral vascular disease."—N. H. Pronko.

966. Hulicka, I. M. (VA Hosp., Buffalo, N. Y.) Verbal WAIS scores of elderly patients. *Psychol. Rep.*, 1962, 10(1), 250.—Analysis of variance of subtest scores for 4 intelligence levels of 60 elderly males divided on the basis of total scale score (verbal) of the WAIS showed significant test differences and interaction between level and test.—B. J. House.

967. Kogan, Nathan, & Shelton, Florence C. (Educational Testing Service) Beliefs about "old people": A comparative study of older and younger samples. *J. genet. Psychol.*, 1962, 100, 93-111.—The present study inquired into the differences and similarities between older and younger Ss in beliefs about old people. The older (46 males and 55 females) and younger (44 males and 49 females) Ss were highly comparable in education and intelligence. A sentence completion instrument was used to assess the beliefs. The instrument consisted of 20 items, each referring to a different aspect of old people's lives or tapping the Ss' personal experiences with old people. Categories were derived from Ss' responses to the items. The responses were scored by 2 independent judges with high interjudge reliability. The statistical significance of age differences for each item was tested by chi square. Where significance was obtained, individual scoring categories within items were compared across age samples by means of critical ratios. A total of 6 items yielded significant age differences for both males and females. 2 items achieved statistical significance for males only, and 3 items for females only. For 9 items, no significant age differences were observed. Examination of the items significant for both sexes revealed a considerable degree of similarity in the beliefs held by younger and older Ss about old people. It was further noted that the belief systems had become stabilized in a manner suggestive of majority-minority group conflict. Implications of the findings were considered, with particular reference to the problem of changing beliefs about old people.—Author abstract.

968. Kogan, Nathan, & Shelton, Florence C. (Educational Testing Service) Images of "old people" and "people in general" in an older sample. *J. genet. Psychol.*, 1962, 100, 3-21.—A sentence

completion procedure was employed to determine whether differences in the image of "old people" and "people in general" observed in younger Ss would also be found among older people themselves. The sample was comprised of 109 women and 89 men, ranging in age from 49 to 92 years, noninstitutionalized and of apparently good health. An "experimental" sentence completion form containing 20 stems referring to "old people" was administered individually to approximately $\frac{1}{2}$ of the Ss. The remaining $\frac{1}{2}$ received the "control" form, which referred to "people in general," but was otherwise identical in content. Code categories relevant to each item pair were derived, and a set of independent judges scored the material with a high degree of agreement. Significant differences were obtained for 17 of the 20 item pairs. Results for each item pair were discussed in detail, and underlying themes cutting across particular item pairs were considered.—*Author abstract.*

969. Levinson, Boris M. (Yeshiva U.) Jewish subculture and WAIS performance among Jewish aged. *J. genet. Psychol.*, 1962, 100, 55-68.—A study of aged Jews indicated that their average Full Scale WAIS IQ was 96.04. The men had higher IQs than the women. The native born men had higher IQs than the foreign born women. The hierarchy of IQs followed the occupational level. At almost all occupational and educational levels, as well as age levels studied, the Verbal IQ was higher than the Performance IQ. When 50 pairs of IQs of aged men and women were matched, it was found that women had a different constellation of WAIS subtests than men. These did not follow normative standards.—*Author abstract.*

970. Lynn, R. (Exeter U., England) Aging and expressive movements: An interpretation of aging in terms of Eysenck's construct of psychoticism. *J. genet. Psychol.*, 1962, 100, 77-84.—The theory is proposed that aging can be regarded in terms of Eysenck's personality theory as entailing a shift along the psychoticism dimension towards psychoticism. From this theory it can be predicted that (a) there should be a progressively higher incidence of older people suffering psychotic breakdown—this is so, (b) tests differentiating psychotics from normals should differentiate old people from young—this is so with tests of speed, fluency, reversible perspective, vigilance, time judgments, and perceptual efficiency, (c) since expressive movements differentiate psychotics from normals they should differentiate young people from old. 2 tests of expressive movements were given to groups of old and young people. One test differentiated the groups at the $P < .01$ level; the other showed a nonsignificant trend in the predicted direction. It was proposed that psychoticism can be interpreted either as a function of insensitivity to stimuli, or as a function of high levels of inhibition.—*Author abstract.*

971. Maddox, George, & Eisdorfer, Carl. Some correlates of activity and morale among the elderly. *Soc. Forces*, 1962, 40(3), 254-260.—Limited support is afforded the frequently-found hypothesis that activity tends to decrease with age. Such a formulation "tends to obscure important antecedent and intervening variables such as socioeconomic status and self-assessments of one's ability to be active." Also partially supported is the view which

perceives a positive relationship between activity and morale. Inventory scores of 250 members of a volunteer panel participating in a longitudinal study of human aging are discussed.—*A. R. Howard.*

972. Malek, Zena Bella. (U. Southern California) The effects of group experiences on the aged. *Dissert. Abstr.*, 1961, 21(11), 3525.—*Abstract.*

973. Maxwell, A. E., (Maudsley Hosp., London) Trends in cognitive ability in the older age ranges. *J. abnorm. soc. Psychol.*, 1961, 63(2), 449-452.—A factor analysis of previously presented WAIS data (Doppelt & Wallace, 1955) isolated 3 factors descriptive of groups ranging in age between 60-75 and over. As age increased, general reasoning decreased, but verbal comprehensions remained high; capacity for psychomotor coordination decreased, and ability for conceptual reasoning remained fairly well intact, though power of inductive reasoning decreased.—*G. Frank.*

974. Meyers, Marvin Daniel. (New York U.) A longitudinal analysis of the factors related to adjustment in retirement. *Dissert. Abstr.*, 1961, 21(11), 3541.—*Abstract.*

975. Pelz, K., Pike, F., & Ames, L. B. A proposed battery of childhood tests for discriminating between different levels of intactness of function in elderly subjects. *J. genet. Psychol.*, 1962, 100, 23-40.—This study reports an attempt to determine level of intactness of personality and performance in a group of elderly Ss on the basis of their performance on a battery of psychological tests used customarily at the preschool and early school levels. The hypothesis is offered, and apparently confirmed, that in spite of seeming intactness of function (good vocabulary, reasonably good memory, apparent social adequacy), many elderly individuals are functioning, at least in some respects, at what amounts to a preschool level. The Ss for the present study were 60 guests at the Masonic Home in Wallingford, Connecticut, divided on the basis of their Rorschach responses into groups of 7 "normal," 24 "intact presenile," 16 "medium presenile," and 13 "deteriorated" Ss. These Ss were given a battery of preschool tests which included the Gesell cubes, Gesell copy forms, Gesell Incomplete Man test, Monroe Visual I and III, The Lowenfeld Mosaic Test, and the verbal battery of the WISC. These tests, except for the WISC, did yield differential diagnoses among the several groups as follows: The intact presenile Ss were distinguished from normal Ss in that they failed Visual III and did not make objects on the Mosaic. The medium presenile Ss failed the steps, responded to the Mosaic at only a 4-year-old level, and added neither eyes nor feet to the Incomplete Man. The deteriorated Ss failed bridge, gate, and steps; failed diamond and rectangle; failed Visual I; and added only 3 parts to the Incomplete Man.—*Author abstract.*

976. Saul, Shura; Segal, Arthur, & Saul, Sidney R. (Jewish Guild for the Blind, NYC) The use of the small group in orienting new residents to a home for the aged: The admissions group. *J. Jewish communal Serv.*, 1962, 33(3), 256-263.—A discussion of the role played by the admissions group in aiding newly admitted residents of the Home for the Aged Blind People in Yonkers, New

York, to adapt themselves to communal living in a new environment.—*M. A. Seidenfeld.*

977. Schludermann, E., & Zubek, J. P. Effect of age on pain sensitivity. *Percept. mot. Skills*, 1962, 14, 295-301.—A dolorimeter was used to measure the pain sensitivity of 171 male Ss ranging in age from 12 to 83 yr. Measurements were taken on forehead, upper arm, forearm, thigh, and leg. Overall pain sensitivity remained constant between the teens and the late 50's but declined thereafter. The various body areas differed in the rate of decline and the age at which decline began. The pain threshold of a higher socioeconomic group (college group) was found to be much higher than that of the corresponding age section of the main experimental group.—*W. H. Guertin.*

978. Talland, George A. (Massachusetts General Hosp., Boston) The effect of age on speed of simple manual skill. *J. genet. Psychol.*, 1962, 100, 69-76.—The effects of aging were tested by speed of performance in 2 motor tasks. 3 age groups were sampled: men in their early 20s, between 40 and 63, and between 77 and 89. The tasks were: (a) continuous working of a manual counter, (b) moving beads with tweezers from one receptacle to another, (c) selecting beads of one hue from a mixed stock and moving them with tweezers. These tasks were performed singly, and each of the latter 2 was also performed in combination with the 1st (which was always done by S's nondominant hand). Each single or combined operation was performed continuously for 2 or more 60-sec. periods. Rate of performance dropped significantly on each task for all age groups. The results suggest that even the simplest motor skill, involving little exertion or coordination of component operation, declines in speed with age. The rule that increases in difficulty result in larger absolute but smaller relative increases in response time did not hold true for the present study. Increasing the difficulty of the visual motor task of moving beads (by imposing on it the restriction of a selective criterion) slowed down the performance of all 3 age groups, and to much the same extent in either absolute or relative terms. Increased difficulty arising from the concurrent performance of 2 tasks reduced rate of performance to a greater extent in the older age groups than in the younger. However, this differential age effect appeared almost entirely in one of the combined tasks.—*Author abstract.*

979. Upchurch, Harley M. A tentative approach to the study of mortality differentials between educational strata in the United States. *Rural Sociol.*, 1962, 27(2), 213-217.—Census figures indicate that the advantage in life survival of college graduates decreases in old age, while the comparison is more favorable for the high school graduate. Suggested causes are given.—*H. K. Moore.*

980. Wallin, J. E. Wallace. (Lyndalia, Del.) The psychological, educational, and social problems of the aging as viewed by a mid-octogenarian. *J. genet. Psychol.*, 1962, 100, 41-46.—Facts dealing with the psychological, educational, and social problems of the aging submitted as background material at the Governor's Conference on the Aging at Smyrna, Delaware, on June 15, 1960, and at the Wilmington Council on Aging on September 19, 1960. The author stresses the need of individualization in the psychological, educational, and social ad-

justment of the aged because of the great individual differences found among them. The unfavorable public image of the oldster is in need of revision. Many deteriorative processes can be prevented, arrested, or ameliorated by proper medical treatment and by activity therapies, especially in the form of interesting, creative, remunerative work, which constitutes a "unifying, integrative, objectifying, rejuvenating force." Many of their mental and social maladjustments are socially produced and can be prevented or overcome. The writer protests against the adoption of involuntary, automatic retirement systems at an arbitrary age, and sounds a plea for the humanization of all such systems in accordance with scientific findings, and the institution of programs of retraining and updating of fit oldsters for remunerative job placement.—*Author abstract.*

SOCIAL PSYCHOLOGY

981. Boulding, Kenneth E. (U. Michigan) Conflict and defense: A general theory. New York: Harper, 1962. ix, 349 p. \$7.00.—"This is a work in abstract social theory. It purports to identify and build theoretical models of a set of social processes related to the phenomenon of conflict. Its theory is ethically neutral." The early chapters are concerned with "Static Models of Conflict"; "The Dynamics of Conflict"; "The Contribution of Game Theory"; "The Theory of Viability"; "The Individual as a Party to Conflict"; "The Group as a Party to Conflict"; "The Organization as a Party to Conflict"; and "Conflict between the Individual, the Group, and the Organization." Later chapters apply this theory to economic, industrial, international, and ideological conflicts. The author concludes with "Conflict Resolution and Control" and "Epilogue: The Present Crisis of Conflict and Defense."—*C. J. Adkins.*

982. Braun, J. R., & Haven, G. A., Jr. Weber fraction analogues in social perception: Further investigation. *Percept. mot. Skills*, 1962, 14, 282.—3 groups (Abstract, Agreement, Disagreement) indicated what they felt would be a "real" difference in magnitude between majority and minority groups of varying sizes. For each of the 3 groups Delta M/M was not invariant over different values of M ($p=.001$). The findings are consistent with those of Levy but the authors interpret them as failing to support the existence of a Weber Fraction Analogue in social perception.—*W. H. Guertin.*

983. Camilleri, Santo F. (Stanford U.) Theory, probability, and induction in social research. *Amer. sociol. Rev.*, 1962, 27(2), 170-178.—"The primary function of the scientist is to develop verified systematic theory. Probability considerations enter into the research process in three basic ways: intrinsically, as postulates in the theory; in auxiliary manner, as a part of the process of observation, including the explanation of errors of observation; and inductively, as a part of the logical structure of verification. The practices of sampling from finite populations, as in survey research, and of randomized experimentation are auxiliary uses of probability. The scope of induction provided in each by the method of sampling is inadequate for scientific purposes. To extend that scope requires the formulation and verification of theory. Statistical inference is

inadequate as an inductive policy for logical and pragmatic reasons. The objective of systematic theory suggests the criterion of systematic import as part of a more adequate inductive policy."—*L. Berkowitz*.

984. **Desmonde, William H.** *Magic, myth, and money: The origin of money in religious ritual.* New York: Free Press Glencoe, 1962. xx, 208 p. \$5.00.—This text explores the original symbolisms associated with money. The author indicates that "money did not, as economists have taught, originate as a medium of exchange, for it was first used in societies where the market institution barely existed and the exchange of economic goods was largely confined to the redistributive economy of the household. The meaning of money was to be found in the emotions and values associated with the family. By relating money to the ritual of the sacred family meal, the bull ritual, and many other ancient symbolisms, the author offers a provocative interpretation that employs anthropological data and the insights of psychoanalysis and sociology to explain the origins of what continues to be one of man's potent symbols."—*N. De Palma*.

985. **Hochheimer, Wolfgang.** *Probleme einer politischen Psychologie.* [Problems in political psychology.] *Psyche, Stuttgart*, 1962, 16(1), 1-33.—A psychology of political life is important for the additional understanding it gives to publically understated features of human beings. It is particularly necessary in view of the way in which human possibilities are masked and misrepresented by ideologies that place particular emphasis on the intellect, narrowly conceived. The Nazi movement in a depth psychological perspective is presented as an example of what a psychology of politics has to offer.—*E. W. Eng*.

986. **Richards, James McDowell, Jr.** (U. Utah) *A test of the cue additivity principle in a restricted social interaction situation through use of a mathematical learning theory.* *Dissert. Abstr.*, 1961, 21(10), 3183-3184.—*Abstract*.

987. **Rose, Arnold M. (Ed.)** (U. Minnesota) *Human behavior and social processes: An interactionist approach.* Boston, Mass.: Houghton Mifflin, 1962. xv, 680 p. \$7.50.—Commencing with a summary of symbolic interaction theory, 35 different writers examine facets, nuances, and implications demonstrating the utility of the theory to provide testable hypotheses of the relationship of self and society. From this common theoretical viewpoint a number of diverse models for research are provided, as well as results of empirical investigations. Inadequacies and gaps in the theory are recognized both implicitly and explicitly.—*C. W. Page*.

988. **Spaulding, Irving A.** (U. Rhode Island) *Social system concepts as successive approximations.* *Sociol. soc. Res.*, 1962, 46(2), 176-180.—5 social system concepts that have appeared in the literature of sociology and anthropology are given critical scrutiny as successive approximations. Regarded as a construct of symbols, each is evaluated with respect to specific premises and criteria of adequacy. The development of approximations is reflected in the evaluation.—*C. W. Page*.

989. **Swanson, G. E.** (U. Michigan) *Mead and Freud: Their relevance for social psychology.* *Sociometry*, 1961, 24(4), 319-339.—"Mead's work is generally considered fundamental but without fruitful implications for research; Freud's as provocative but wrong." Mead's theories are barren of problems for investigation, his most relevant premises are untestable, and the testable aspects are not social-psychologically relevant. When instinct and Lamarck are taken out of Freud, 2 useful ideas remain. One has to do with "the source of conditions that precede, accompany, and follow the presence of mind and provide limits to gratification." The other concerns "features of instrumental relations of mind."—*H. P. Shelley*.

990. **Williams, Thomas Rhys.** (Sacramento State Coll.) *A critique of some assumptions of social survey research.* *Publ. Opin. Quart.*, 1959, 23(1), 55-62.—"Social scientists who utilize the questionnaire survey technique would further their scientific aims if they would critically examine the assumptions which underlie and shape the character of their research." In particular, note is taken of: "(1) the assumption of the validity of a survey response as a social datum, and (2) the assumption of dynamic equivalence among survey responses, or between such responses and actual social behavior."—*E. P. Hollander*.

CULTURE & CULTURAL RELATIONS

991. **Bronfenbrenner, Urie.** (Cornell U.) *Personality and participation: The case of the vanishing variables.* *J. soc. Issues*, 1960, 16(4), 54-63.—A discussion of the findings of the Springdale project with respect to the complex and elusive part played by personality characteristics in community participation. The tendency toward acquiescence, besides being a complicating factor in measuring other variables, showed a significant negative correlation with community participation. Social class and "rosiness of outlook" correlated positively with participation.—*E. Y. Beeman*.

992. **Brown, Morgan C.** (Southern U.) *Selected characteristics of southern rural Negroes exchanged to a southern urban center.* *Rural Sociol.*, 1962, 27, 64-70.—The Negroes residing in United States cities numbered 750,000 in 1870, 2 million in 1900, 4 million in 1930, 12 million in 1957. Of the 312 male adult Negroes who moved to Baton Rouge, Louisiana, most of them came from within 50 miles, were better educated than those who did not move, and were usually laborers.—*H. K. Moore*.

993. **Devereux, Edward C., Jr.** (Cornell U.) *Community participation and leadership.* *J. soc. Issues*, 1960, 16(4), 29-45.—A review of the "findings with respect to the correlates of different levels and types of community participation" in Springdale, a small community in south central New York State.—*E. Y. Beeman*.

994. **Devereux, Edward C., Jr.** (Cornell U.) *Neighborhood and community participation.* *J. soc. Issues*, 1960, 16(4), 64-84.—A discussion of the social ecology of Springdale, the differentiation of the rural sections into "neighborhoods," how these differ from one another, and "how they are related to one another and to the central community." Some of the

findings of the Springdale project with respect to ecological analysis are presented.—*E. Y. Beeman.*

995. Devereux, Edward C., Jr. (Cornell U.) **Springdale and its people.** *J. soc. Issues*, 1960, 16(4), 7-15.—A description of Springdale (a small community in south central New York State), its history, and the dynamics of its present status.—*E. Y. Beeman.*

996. Devereux, Edward C., Jr., Bronfenbrenner, Urie, & Harding, John. (Cornell U.) **Community participation as a research problem.** *J. soc. Issues*, 1960, 16(4), 1-6.—A description of the Springdale project, an interdisciplinary research project "carried on since 1950 by a team of staff members of Cornell University's Department of Child Development and Family relationships," the article serves as an introduction to this issue of the journal which presents some of the findings of the project. (16 ref.)—*E. Y. Beeman.*

997. Fernández-Marín, Ramón. **The Puerto Rican syndrome: Its dynamics and cultural determinants.** *Psychiatry*, 1961, 24(1), 79-82.—The hyperkinetic episodes of the Puerto Rican syndrome, identified as hysterical attacks, function as basic ego defenses against psychotic breaks and regressions and originate in the heteroclitic dependency of Puerto Rican infants.—*C. T. Bever.*

998. Fischer, H., & Trier, J. P. **Das Verhältnis zwischen Deutschschweizer und Westschweizer: Eine sozialpsychologische Untersuchung.** [Differences between German- and French-speaking Swiss: A social-psychological investigation.] Bern, Switzerland: Hans Huber, 1962. 82 p. DM 11.50.—A Kent-Rosanoff-like list was administered to a total of 1500 German-speaking and French-speaking students at 5 Swiss universities to determine differences in autostereotypes within and between the 2 language groups. A factorial analysis of the data yielded 3 principal components labeled evaluation, strength, and activity. Cultural and historical influences are discussed. Tables and figures are included.—*K. J. Hartman.*

999. Goodchilds, Jacqueline D., & Harding, John. (Matrix Corp., Los Angeles) **A case study of community participation.** *J. soc. Issues*, 1960, 16(4), 46-53.—A discussion of a community project to raise money to repair a dam in the village.—*E. Y. Beeman.*

1000. Goodchilds, Jacqueline D., & Harding, John. (Matrix Corp., Los Angeles) **Formal organizations and informal activities.** *J. soc. Issues*, 1960, 16(4), 16-28.—An analysis of the formal organizations (government and welfare, service and sociability, lodges, cultural and recreational, and church) and the informal leisure time activities of Springdale, a small community in south central New York State.—*E. Y. Beeman.*

1001. Gorer, Geoffrey, & Rickman, John. **The people of Great Russia.** New York: Norton, 1962. xli, 235 p. \$1.65 (paper).—First published in 1949 by Cresset Press, this book is now out in a paperback edition with a new introduction by Gorer. Included are "Ten Sketches of Russian Peasant Life (1916-1918)" by Rickman and a discussion of the childhood training, character development, and psychology of the Russian people by Gorer.—*E. Y. Beeman.*

1002. Janov, Arthur. (Claremont Graduate School) **A study of the polarities of Jewish identification.** *Dissert. Abstr.*, 1961, 21(10), 3182.—*Abstract.*

1003. Katz, Elihu, & Zloczower, Awraham. (U. Chicago) **Ethnic continuity in an Israeli town: I. Relations with parents.** *Hum. Relat.*, 1961, 14(4), 293-308.—The responses of 2nd-generation Yemenites and Ashkenazim (age 24 years) are compared for indications of intergenerational continuity. This continuity is reflected in greater acceptance of parental authority and in the affirmation of traditional values and attitudes. The evidence supports greater continuity among the Yemenites, although in both groups changes are taking place which seem gradual and selective rather than rebellious and total. Yemenite group culture in this particular structure is suggested as an explanatory factor.—*W. W. Meissner.*

1004. Katz, Elihu, & Zloczower, Awraham. (U. Chicago) **Ethnic continuity in an Israeli town: II. Relations with peers.** *Hum. Relat.*, 1961, 14(4), 309-327.—(See 37: 1003) The prior study of intergenerational continuity between 24-year-old Yemenites and Ashkenazim is extended here to intragenerational relations. Results based on the responses of 90 Ss from both ethnic groups indicate that friendships tend to be homogeneous as to age, sex, and ethnic group. Differences between the groups were found in the importance attributed to friendship, in the extent and cohesiveness of friendships, and in the sociometric structure of relations with age-peers. The most elaborate friendship patterns are found in Ashkenazi men and the least elaborate in Yemenite women. In general, friendship is more important for the Ashkenazim.—*W. W. Meissner.*

1005. Kluckhohn, Clyde. **Culture and behavior.** New York: Free Press Glencoe, 1962. viii, 402 p. \$6.75. The author's collected essays (21 in number) are edited by Richard Kluckhohn. They concern the following subjects: theory of culture, archaeological dating, Navaho ethnology, Navaho personality, Russian character, socialization, Indian-white relations in the United States, theory and sociology of values, and education.—*L. M. Hanks, Jr.*

1006. Lantis, Margaret. **Eskimo childhood and interpersonal relationships: Nunivak biographies and genealogies.** Seattle, Wash.: Univer. Washington Press, 1960. xv, 215 p. \$4.75.—Biographies of 18 Alaskan Eskimos, usually in their own words, are recorded together with explanatory notes. Also included are sequels to the life histories from a subsequent visit, an ethnographic conclusion, Rorschach summaries, and genealogies.—*L. M. Hanks, Jr.*

1007. Lee, Frank F. (Adelphi Coll.) **Negro and white in Connecticut Town.** New York: Bookman, 1961. 207 p. \$5.00.—A report of a "field study of Negro-white relations in a small New England town." This study had two objectives. The first . . . was to determine the 'place' of the Negro in the community." The 2nd objective "aimed to ascertain the means of controlling and perpetuating the race relations pattern. We wished to find out what processes of social control operate to keep Negroes 'in their place.'" The findings indicated that "in such a town as this one, social control in race relations tends to be unofficial, informal, situational,

subtle, and indirect." Biographical data is provided for both Negro and white informants. (182-item bibliography).—*C. J. Adkins.*

1008. Maccoby, E. E. (Stanford U.) **The choice of variables in the study of socialization.** *Sociometry*, 1961, 24, 357-371.—Variables coming from laboratory studies of learning, from psychoanalytic theories, and from the sociological literature on socialization are examined to show "the way in which different theoretical systems, and different social-science disciplines, have converged to define and elaborate some of the variables which have been used in studies of socialization. In some cases this convergence has produced confusion over the meaning of variables. More importantly, it has produced a startling range of findings which have not yet been integrated into a theory of socialization."—*H. P. Shelley.*

1009. Martin, D. A. **The denomination.** *Brit. J. Sociol.*, 1962, 13, 1-14.—As a social phenomenon, the denomination is peculiarly characteristic of the United States and the British Commonwealth; and some of the differentiae of those societies, their liberalism, individualism, pragmatism, and disunity within consensus, are at least related to the specific differentiae of denominationalism. The denomination flourishes in conditions and in countries where social change proceeds at a steady pace according to agreed criteria.—*R. M. Frumkin.*

1010. Nadad, Avraham, & Ahiham, Efraim. **Hanikhey aliyat hanoar bahayim atsmayim.** [Students of youth immigration in their independent life.] Jerusalem, Israel: Jewish Agency for Israel, Youth Immigration Department, 1962. 117 p.—A survey carried out in 1955-56 in order to follow up the 45,000 students of the Youth Immigration Department during the 20-year period from February 1934 until the end of 1953. The following topics are described and analyzed: pupils of the Youth Immigration Department in the past, their occupations today, satisfaction with work, dwelling conditions, level of knowledge of Hebrew, and survivors of Nazi disaster.—*H. Ormian.*

1011. Sanua, V. D. (Yeshiva U.) **Differences in personality adjustment among different generations of American Jews and non-Jews.** In M. K. Opler (Ed.), *Culture and mental health* (see 34: 7593). Pp. 443-466.—The Rorschach Multiple Choice Test and an adaptation of the Thurstone Personality Schedule were administered to Jewish and non-Jewish high school students. The 3rd-generation Jewish group gave the healthiest mean score on the objective test, and the poorest mean score on the Rorschach. Their identification with their minority group was the weakest. Socioeconomic status and synagogue affiliation (Reform, Conservative, Orthodox) did not affect the test results. It was hypothesized that conflict and stresses arising from weaker identification with the minority group would be strongest with the 3rd generation. The 3rd-generation student, being the most "acculturated," seemed to "know" the right answers on the objective test, while there was evidence of anxiety on the projective test.—*Author abstract.*

1012. Sanua, V. D. (Yeshiva U.) **Sociocultural factors in responses to stressful life situations: The behavior of aged amputees as an**

example. *J. Hlth. hum. Behav.*, 1960, 1, 17-24.—This study was designed to test the hypothesis that there are sociocultural components in patients' reactions to stress situations and disabilities. Elderly male amputees comprising Jews, Catholics, Protestant, and Negroes of low socioeconomic status were interviewed in 5 New York hospitals where they were undergoing rehabilitation. Among other findings, the study showed that the Jewish patient tends to mourn the loss of his limb much longer than the other patients, presents more somatic complaints, and has a pessimistic outlook in his rehabilitation.—*Author's abstract.*

1013. Smit, Claude M. (U. Pretoria, South Africa) **Comparative analysis of results from Kraus-Weber Test of minimum muscular fitness in South African children.** *J. soc. Res., Pretoria*, 1961, 12(1), 1-20.—"The Kraus-Weber Test was applied to 2,130 white and 496 Bantu scholars between the ages of 6 through 16 years and the results compared with those obtained by Kraus and Hirschland. Both groups were found to be superior to the American children but inferior to Austrian, Italian and Swiss children." The difference between American and European groups is ascribed to the difference between physical education programs and the highly mechanized labor-saving devices in the United States. (Dutch & English summaries)—*N. De Palma.*

1014. Straus, M. A. (U. Minnesota) **Deferred gratification, social class, and the achievement syndrome.** *Amer. sociol. Rev.*, 1962, 27(3), 326-335.—"The theoretical and research literature on self-imposed postponement of gratifications or satisfactions is reviewed with emphasis on the relation of such a 'Deferred Gratification Pattern' (DGP) to social class and social mobility. Three hypotheses growing out of this review were tested on 338 male high school students. The hypothesis of a deferred gratification pattern received some support from the fact that scales with reproducibilities from .92 to .96 were developed for deferment of five adolescent needs: affiliation, aggression, consumption, economic independence and sex; and by the intercorrelation of these scales. The hypothesis of positive correlation between the DGP scales and socioeconomic status was not supported. The hypothesis of positive correlation between the DGP scales and achievement role-performance and role-orientation was supported. These relationships were not eliminated by controls for socioeconomic status and intelligence. Findings are interpreted as supporting the theory that need deferment is functional for social mobility in American society."—*L. Berkowitz.*

1015. Sumotirto, B. W. (Gadjah Mada U., Jogjakarta) **Social attitudes among high school students in Indonesia.** *Brit. J. educ. Psychol.*, 1962, 32(1), 3-11.—512 high school students in various Indonesian towns gave choices of actions in 15 situations. They also indicated what would be realistic to expect. Responsibility towards society or country ranked high but differences existed between "normative" and "realistic" levels. 4 social types were identified.—*B. T. Jensen.*

1016. Taft, R. (U. Western Australia) **Adjustment and assimilation of immigrants: A problem in social psychology.** *Psychol. Rep.*, 1962, 10(1), 90.—A discussion of methods for studying the role

of psychological variables in assimilation of immigrants and a brief description of results of previous studies of immigrants to Western Australia—*B. J. House*.

1017. Taft, Ronald. (U. Western Australia) **The assimilation of Dutch male immigrants in a Western Australian community.** *Hum. Relat.*, 1961, 14(3), 265-281.—Richardson's study of the assimilation of British immigrants was replicated with Dutch immigrants. Richardson's conclusions—(a) that assimilation can be divided into satisfaction with life in Australia, identification with Australia, and acculturation and (b) that a certain amount of satisfaction is needed for identification to occur, and both are needed for a high level of acculturation—are supported by the findings on the Dutch Ss.—*W. W. Meissner*.

1018. Weinstein, Edwin A. **Cultural aspects of delusion: A psychiatric study of the Virgin Islands.** New York: Free Press Glencoe, 1962. 215 p. \$5.00.—A demonstration (by reference to 5 sub-cultures in the Virgin Islands) that delusions are condensed and caricatured forms of social language with meaning to the patient in relation to, and as a result of, his culture. Implications of such an orientation for treatment are noted. Using psychiatric and anthropological concepts the Sapir-Whorf interaction hypothesis is illustrated as economical for a variety of research purposes of this nature.—*C. W. Page*.

1019. Willcox, W. B. (U. Michigan) **An historian looks at social change.** *J. soc. Issues*, 1961, 17(1), 50-65.—A discussion of the historical approach to analyses of social change, this discussion points up the difficulties of describing social change adequately because of the relative multiplicity of probable causative factors that impinge upon a given historical event.—*A. Barclay*.

1020. Yoshida, Masaaki; Moriyama, Minako, & Tamai, Chizuko. **Structure of authority in the Japanese mind.** *Jap. J. Psychol.*, 1962, 32, 353-366.—Various social positions were rated on their attributes, such as social status, and the resultant rankings appear to coincide with the current social hierarchy. The intercorrelations of the attributes were factored and the resulting factors are discussed.—*A. Barclay*.

1021. Zajonc, Robert B., & Wahi, N. Kishor. (U. Michigan) **Conformity and need-achievement under cross-cultural norm conflict.** *Hum. Relat.*, 1961, 14(3), 241-250.—The relation between conformity and achievement was studied in 30 male Indian students. The results indicate that the relation is mediated by the instrumental value of conformity, and that when conformity is so perceived, a positive rather than a negative relation will be obtained. The high-achievement group was more sensitive to the instrumental value of conformity than to the congruence of the norms; the opposite was found in the low-achievement group. The groups did not differ in susceptibility to situational pressures.—*W. W. Meissner*.

SOCIAL STATUS & STRUCTURE

1022. Berger, Bennett M. (U. Illinois) **The myth of suburbia.** *J. soc. Issues*, 1961, 17(1), 38-49.—An analysis of current conceptualizations about

suburban life, as reflected in both the popular and the scientific literature, indicates that the current image of suburban life is wide of the mark and that the generality of the comments about "suburbia" is quite limited and probably does not hold for the majority of such suburban settings.—*A. Barclay*.

1023. Blalock, H. M., Jr. (Yale U.) **Occupational discrimination: Some theoretical propositions.** *Soc. Probl.*, 1962, 9(3), 240-247.—The general problem of occupational discrimination is closely related to the nature of the occupation in which discrimination is practiced. To illustrate some theoretical propositions concerning occupations in which there is relatively little discrimination the author discusses the integration of Negroes in professional baseball. Professional baseball is one of those highly competitive occupations in which individual performance is easily evaluated and in which high individual achievement is closely related to high group performance and productivity. The theoretical propositions set forth have some rather practical applications with respect to the occupational status of Negroes and other minority group members.—*R. M. Frumkin*.

1024. Campbell, Vincent Neal. (U. Colorado) **Assumed similarity perceived sociometric balance, and social influence: An attempted integration within one cognitive theory.** *Dissert. Abstr.*, 1961, 21(11), 3516.—*Abstract*.

1025. Cohen, Yehudi A. (Columbia U.) **Social structure and personality: A casebook.** New York: Holt, Rinehart & Winston, 1961. 527 p. \$7.50.—An account of the relationship between personality and social-structural arrangements of society. The focus is upon conditions in which people function and the consequences of these conditions. The conclusion is that similar social environments (e.g., systems of reward and punishment, patterns of interpersonal relations, etc.) will affect personality similarly despite differing traditional cultures. Effects of particular "personality constellations" upon social structure (as in legal, military, and economic institutions) are also discussed. About ¼ the book consists of research studies cited to document various theoretical points.—*N. G. Burton*.

1026. Dirks, Heinz. **Probleme des beruflichen Auf- und Abstiegs.** [Problems of professional ascent and descent.] *Psychol. Rdsch.*, 1962, 13(2), 117-130.—The material, social, and psychological conditions of vertical mobility within an open society are discussed.—*W. J. Koppitz*.

1027. Kadushin, Charles. (Columbia U.) **Social distance between client and professional.** *Amer. J. Sociol.*, 1962, 67, 517-531.—The effect of social distance between client and professional on the stability of their interaction is studied from reports of the former clients of ministers, physicians, and psychotherapists who are now applying to a psychiatric clinic. On 4 dimensions of social distance—normative, interactive, cultural, and personal—ministers are closest, physicians are more distant, and psychotherapists are the most distant from their clients. Stable interaction between client and professional is most likely when internalized norms, common expectations, and optimum cathexis exist among the role partners. These conditions are best met by the ministers and counselees, and least of all met by psychotherapists and patients. Social prox-

imity and distance each have advantages and disadvantages in maintaining the conditions of stable interaction.—R. M. Frumkin.

1028. Kosa, John; Rachiele, Leo D., & Schommer, Cyril O. (Cornell U.) The self-image and performance of socially mobile college students. *J. soc. Psychol.*, 1962, 56, 301-316.—Using a sample of 369 male and 182 female college students, this study attempted to separate some psychological factors in social mobility. While the "mobile" and "non-mobile" Ss, taken as total groups, did not differ significantly on the traits examined, an analysis of the sample by selected categories (sex, levels of aspiration, ethnic origin, and financial support) did yield meaningful differences. Among the mobile male students, 3 personality factors emerged: (a) an anticipatory adjustment to the desired higher class, (b) a technique for coping with special impediments, and (c) a high motivation associated with self-confidence and high achievements. In contrast, mobile female students generally manifested timidity and self-undervaluation.—*Author abstract.*

1029. Maccoby, E. E. (Stanford U.) Class differences in boys' choices of authoritative roles. *Sociometry*, 1962, 25(1), 117-119.—Included in a questionnaire administered to 245 6th-grade boys in the greater-Boston area were 6 items asking the boys to choose between 2 occupations. "We believe we have demonstrated that boys' occupational choices, in relation to their social class of origin, do not simply mean that boys from 'higher' occupational groups want 'higher' occupations in terms of the greater money and prestige that the higher-status occupations entail. Apart from these factors, the sons of upper-middle-class families seem to have acquired some interest in occupations which involve training, supervising, or controlling others.—H. P. Shelley.

1030. Rainwater, Lee. (Social Research, Inc., Chicago) Social status differences in the family relationships of German men. *Marriage fam. Liv.*, 1962, 24, 12-17.—Approximately 140 relatively unstructured interviews were conducted with men under 50 at various class status levels in West Germany, excluding Berlin. Qualitative interclass analysis and comparisons were made for the patterns of family relationship. These results were discussed in the light of familial patterns of men in the United States.—L. Shatin.

1031. Reisman, David. (Harvard U.) Styles of response to social change. *J. soc. Issues*, 1961, 17 (1), 78-92.—An analysis of the differential effects of social class in the production of social change, pointing out that the pressures of social change are experienced primarily by the middle class in an active sense and more passively by the lower classes, and that changing cultural values are reflected largely in changes in middle-class attitudes rather than being reflected in lower classes or upper classes.—A. Barclay.

1032. Ross, John A. (Albion Coll.) Social class and medical care. *J. Hlth. hum. Behav.*, 1962, 3(1), 35-40.—Data from 2 years of national health surveys (1957-59) indicate that a positive correlation is present not only between social class and frequency of medical service, but for type of service (upper class medicine is more preventive). The intermediate links

which help create these relationships are as follows: "Unequal purchasing power, differing interpretations of illness, unlike theories of illness and orientations toward treatment, and differential knowledge and use of information across the several social classes, all emerge as significant." (17-item bibliogr.)—L. A. Ostlund.

1033. Sewell, W. H. (U. Wisconsin) Social class and childhood personality. *Sociometry*, 1961, 24, 340-356.—Studies on the relationship of social class and child personality are briefly reviewed. Among the conclusions reached are: (a) at least some of the variability in child personality is related to the socioeconomic status (SES) of the child, (b) there is no evidence for greater middle-class neuroticism, and (c) despite the great attention to such disciplinary procedures as nursing, weaning, and toilet training, little or no relationship has been found with child personality. Suggestions for future research include: (a) a large scale community study using several SES indicators and personality measures; (b) intensive study of the relationship between SES and personality in a community with clear subcultures; (c) mobility, occupational orientations, age, sex, and intraclass variations should be studied in the effort to learn more about social influences upon personality.—H. P. Shelley.

1034. Thomas, R. Murray. (U. California, Santa Barbara) Reinspecting a structural position on occupational prestige. *Amer. J. Sociol.*, 1962, 67 (5), 561-565.—Rankings of occupational prestige in Indonesia, a nonindustrialized nation, are found to correlate highly with prestige rankings reported for 6 industrialized nations. These results cast doubt on the adequacy of the structuralist position offered by Inkeles and Rossi for identifying the most important determinants of job status. An alternative explanation is provided by identifying 6 dimensions of occupational prestige which interact to determine the status of particular jobs, namely: power, financial reward, crucial role, education, mental-physical, service-to-society.—R. M. Frumkin.

1035. van der Merwe, W. Stratification in a Cape colored community. *Sociol. soc. Res.*, 1962, 46(3), 302-311.—A comparative study was made of the past and present stratification patterns of a Cape Colored Community. It was found that the bases of status have shifted from ascribed racial factors to achieved factors. By means of a specific technique the spontaneous comments made by 10 raters while rating were recorded and analyzed in an effort to determine different subcultural value systems in the community. The results of this analysis, supplemented by a questionnaire administered to a representative sample of the community, suggest the advisability of a distinction between bases and correlates of status, and warn against the use of arbitrary criteria to measure status without investigating subcultural and individual values on which status may be based.—*Journal abstract.*

1036. Works, Ernest. Residence in integrated and segregated housing and improvement in self-concepts of Negroes. *Sociol. soc. Res.*, 1962, 46(3), 294-301.—An attempt was made to investigate the hypothesis that Negroes in integrated housing have more positive self-concepts than do Negroes in segregated housing. While our data did not confirm this hypothesis, it did show that Negroes in integrated

housing tend to undergo more improvement in self-concept than do Negroes in segregated housing. This suggests that an improvement in the status of the Negro is associated with an improvement in the Negro's self-concept.—*Journal abstract.*

ATTITUDES & OPINIONS

1037. American Association for Public Opinion Research. *Proceedings of the Fourteenth Annual Conference: May 14-17, 1959. Publ. Opin. Quart.*, 1959, 23(3), 407-449.—Abstracts of papers and round table discussions, and a summary of proceedings of the annual business meeting.—*E. P. Hollander.*

1038. Blood, Robert O., Jr., & Nicholson, Samuel O. The attitudes of American men and women students toward international dating. *Marriage fam. Liv.*, 1962, 24, 35-41.—This study of random samples of men and women students at the University of Michigan reveals a permissive climate of student opinion toward dating between American girls and foreign men.—*L. Shatin.*

1039. Braun, J. R. (U. Bridgeport) Three tests of the McClelland discrepancy hypothesis. *Psychol. Rep.*, 1962, 10(1), 271-274.—Nonsense syllables and pseudo-words were rated by 2 groups of 23 college students on a pleasant-unpleasant scale. For both types of material, items tended to be liked to the extent to which they resembled actual words. A 3rd group of 20 students provided evidence that familiarization training with nonsense syllables increases pleasantness rating.—*B. J. House.*

1040. Brown, L. B. (U. Adelaide) Religious belief and reports of childhood experiences. *Psychol. Rep.*, 1962, 10(1), 269-270.—"No relationship between strength of religious belief and reports of childhood experiences was found for 258 University students."—*B. J. House.*

1041. Byrne, Donn. (U. Texas) Interpersonal attraction as a function of affiliation need and attitude similarity. *Hum. Relat.*, 1961, 14(3), 283-289.—An attitude scale, dealing with 26 issues, was administered to 84 students. After 2 weeks, the same scale—supposedly filled out by another student, but in fact by E—was presented for rating on several scales. Affiliation need was also evaluated using 4 TAT cards. Results indicate (a) that a stranger with attitudes similar to the S's was rated equally positively by Ss both high and low in affiliation need and (b) that a stranger with dissimilar attitudes was rated more negatively on measures of interpersonal attraction.—*W. W. Meissner.*

1042. Carter, Richard F. (Stanford U.) Bandwagon and sandbagging effects: Some measures of dissonance reduction. *Publ. Opin. Quart.*, 1959, 23(2), 279-287.—In a study of a school bond issue election where 2 prevalent norms—citizen responsibility to vote and the expectation of low voter turnout—which offered alternative foci for resolving a conflict of attitudes and behavior, 2 distinct changes took place in the nonvoters. Persons who saw their attitude as relevant to the 1st norm "appear to have increased their attitudinal level in relation to their communicatory activity level. . . . We have called this the 'bandwagon' effect." Persons who saw their attitude as relevant to the 2nd norm "appear to have decreased their attitudinal level in relation to their

communicatory activity level. . . . We have called this the 'sandbagging' effect. Both these mechanisms reflect the individual's search for a stability in his cognitive structure . . . illustrative of Festinger's dissonance theory."—*E. P. Hollander.*

1043. Catton, William R., & Sung Chick Hong. (U. Washington) The relation of apparent minority ethnocentrism to majority antipathy. *Amer. sociol. Rev.*, 1962, 27(2), 178-191.—To determine whether "majority hostility is associated with the appearance of ethnocentrism in minorities," 557 students at the University of Washington completed a questionnaire on which they indicated (a) the apparent ethnocentrism of various minority groups, (b) the social distance they desired between themselves and each of these groups, and (c) their level of anti-Semitism. Antipathy toward the various minority groups and the apparent ethnocentrism of these groups was found to be curvilinearly related even for the nonstereotyping, non-anti-Semitic judges. A 3rd variable, "social dominance," positively correlated with social nearness, could have masked the ethnocentrism-antipathy relation. After social dominance is taken into account, "residual majority antipathy is related to apparent minority ethnocentrism in such a way as to support the conclusion that to appear ethnocentric entails measurable costs for the group in intergroup relations."—*L. Berkowitz.*

1044. Christensen, Harold T., & Carpenter, George R. Timing patterns in the development of sexual intimacy: An attitudinal report on three modern western societies. *Marriage fam. Liv.*, 1962, 24, 30-35.—Attitude toward premarital coitus by casual dates, by couples in love, and by couples in love and formally affianced was measured with a carefully constructed questionnaire. College students of 3 geographical areas were compared: United States midwestern (N=355), United States intermountain (primarily Mormon) (N=168), and Denmark (N=235). Their dating, petting, and coital patterns were reported and analyzed.—*L. Shatin.*

1045. Davis, Morris. (U. Wisconsin) Community attitudes toward fluoridation. *Publ. Opin. Quart.*, 1959, 23(4), 474-482.—"There is one recent scientific advance whose adoption has held much public attention . . . fluoridation of public water supplies . . . [on which] the public at large has been summoned in many communities to issue its sovereign Yes or No." A review of the opposition to fluoridation suggests the hypothesis that "antifluoridationism" derives from a more general attitudinal syndrome. "If publics are to decide on scientific questions, they must be able to penetrate to the merits of the cases. This they cannot do until they are at least somewhat familiar with scientific method and outlook. . . . It is folly for the publics to be allowed to decide what is to be done with scientific achievements if their decision rests on whether or not they believe in scientific method."—*E. P. Hollander.*

1046. Davis, Warren C. (Rochester Inst. Technology) Inventory of attitudes and ideals. *Personnel J.*, 1962, 41(6), 290-292.—The Inventory of Attitudes was given to 225 sophomores and juniors (100 in 1961 and 125 in 1947-49) at the Rochester Institute of Technology and to 20 faculty members in the College of General Studies. In general, the students were more conservative in their attitudes than the faculty. There were some marked changes,

in the students' attitudes including: (a) decreased belief in annual wage contracts, (b) increased interest in sending manpower to assist nations fighting to preserve democratic principles, (c) decreased interest in making grounds for divorce more difficult, (d) decreased desire to eliminate taxes on basic necessities, (e) decreased interest in declaring war by voting, (f) decreased belief that machines tend to create more jobs than they destroy, and (g) increased approval of a checkoff system for union dues.—*M. B. Mitchell.*

1047. Eddy, Elizabeth Marie. (Columbia U.) **Attitudes towards desegregation among southern students on a northern campus.** *Dissert. Abstr.*, 1961, 21(12), 3872.—*Abstract.*

1048. Esterson, Harold Herman. (New York U.) **A study of the self attitudes and attitudes towards authority of conservatives and radicals.** *Dissert. Abstr.*, 1961, 21(10), 3164-3165.—*Abstract.*

1049. Evan, William M. (Columbia U.) **Cohort analysis of survey data: A procedure for studying long-term opinion change.** *Publ. Opin. Quart.*, 1959, 23(1), 63-72.—"The purpose of this paper is, to present and illustrate . . . a method of analysis which combines the long-run perspective of the trend study with the panel-study focus on process. . . . Repeated interviews enable the panel analyst to study not only net change but 'turnover.' The trend analyst, on the other hand, is restricted to the study of net change. However, the analogue of a group of specific panel respondents in successive cross-sectional surveys is a 'cohort' . . . a group of persons born at a particular time, whether in a given year, in a five-year period, or in any other interval." By an age breakdown adjusted to the interval between a series of cross-sectional surveys, opinion changes of a cohort can be studied. A methodology for this is presented with illustrations, and limitations are discussed.—*E. P. Hollander.*

1050. Fishbein, Martin, & Raven, Bertram H. (U. Illinois) **The AB scales: An operational definition of belief and attitude.** *Hum. Relat.*, 1962, 15(1), 35-44.—"Belief" is defined as the probability dimension of a concept, and "attitude" as the evaluative dimension. A set of semantic differential scales, containing 5 scales measuring attitude and 5 measuring belief, were selected through role-playing procedures. Communications to different groups seemed to affect attitude and belief independently, and the reliability and validity of the distinction was established. "Belief in" a concept is distinct from "belief about" a concept; namely, the belief in the existence of a number of relationships between the concept and other concepts. Change in attitude toward a given concept can result from a change in belief about that concept. (20 ref.)—*W. W. Meissner.*

1051. Freedman, Mervin B. (Vassar Coll.) **Changes in six decades of some attitudes and values held by educated women.** *J. soc. Issues*, 1961, 17(1), 19-28.—Comparison of 6 decades of Vassar alumni on the California Public Opinion Survey (the authoritarianism and ethnocentrism scales) were made, with the finding that the various decades from 1904-56 differed significantly in their answers. It was considered that these findings reflected real differences in general attitude change and that the differences are related to cultural attitudes prevailing

at the time these individuals were in college. General conclusions were that present day attitudes are more flexible or, perhaps, more conforming in areas assessed by the F scale.—*A. Barclay.*

1052. Frumkin, Robert M. (State U. New York, Oswego) **Scientific millennialism as the coming world ideology.** *J. hum. Relat.*, 1962, 10(2-3), 145-162.—Scientific millennialism is an ideology based on the integration and reconstruction of 4 converging, somewhat utopian, ideologies: pacifism, humanism, cosmopolitanism, and internationalism. It is the idea that "the good life" is best achieved through science united with religion. According to this view, science and religion both fulfill the same basic need of people to know, to have some answers, some understanding of the basic questions concerning the nature of man and the universe. Scientific millennialism is defined in terms of the following factors: ultimate goals; character structure and life organization; role models; competition; cooperation; wealth and property; social change, intellectual inquiry, and creativity; war; some representative associations and groups; adequacy of normative structure; and meaning for the contemporary world.—*Author abstract.*

1053. Geiser, Robert L., & Newman, Roger W. (Boston U.) **Psychology and the legal process: Opinion polls as evidence.** *Amer. Psychologist*, 1961, 16, 685-690.—The purpose of this paper was "to describe the actual and potential use of . . . polls and surveys as legal evidence and to comment on relevant legal decisions for the benefit of interested psychologists." The value of public opinion polls was indicated in change-of-venue decisions, in attitudes toward euthanasia, in determining the moral climate of a community, and in determining whether a certain statement or epithet is capable of being defamatory in the public mind in connection with evidence of libel or slander. It was pointed out that the potential uses of survey evidence in litigation are numerous, and that the courts are showing increasing acceptance of this evidence. Steps toward insuring the psychologist's acceptance as an independent expert and areas of preparation by the psychologist for court testimony are suggested.—*S. J. Lachma.*

1054. Glantz, Oscar. (Michigan State U.) **Protestant and Catholic voting behavior in a metropolitan area.** *Publ. Opin. Quart.*, 1959, 23(1), 73-82.—Voting behavior of different religious groups may be complexly related to class, national origin, and region. Data are presented from an interview study in Philadelphia with 201 white male Protestants and 199 white male Catholics, following the 1952 presidential election. Comparison with data obtained at Elmira, New York, by Berelson, et al. in 1948 revealed these affirmations: "(1) At the middle and lower stratification levels, there was approximately twice as much Republicanism among Protestants as there was among Catholics; (2) these differences were still apparent . . . when Protestants and Catholics were compared within various class-identity and politico-economic groupings; and (3) among younger and older labor-union Protestants, the younger group returned a large vote to the Democratic party." No difference obtained between the religious groups' voting within the top economic level in Philadelphia; also, in the business and white-collar classes there, younger Catholics were less inclined than their elders to vote Republican.—*E. P. Hollander.*

1055. Himmelstrand, U. (Uppsala) **Social pressures, attitudes and democratic processes.** Stockholm, Sweden: Almqvist & Wiksell, 1960. 471 p.—4 empirical studies dealing with attitudes toward legal abortion, attitudes toward child-rearing practices, and political attitudes and behavior are described and related to a theoretical framework. The book is in 2 parts, the 1st theoretical, the 2nd empirical, with a discussion of the relation of the data to the theory. The data were collected in Sweden, and Swedish and English versions of the interview questions are provided. A bibliography and a list of symbols and abbreviations are included.—T. J. Banta.

1056. Hollander, E. P. (American U.) **Some effects of perceived status on responses to innovative behavior.** *J. abnorm. soc. Psychol.*, 1961, 63(2), 247-250.—The degree of perceived status of an individual and its effect on the consequent evaluation of that person's behavior was studied. Persons perceived with a greater degree of status are more acceptable as authority figures and their idiosyncratic behavior receives greater acceptance.—G. Frank.

1057. Jahoda, Marie. **What is prejudice?** *World ment. Hlth.*, 1961, 13(1), 38-45.—A question and answer discussion of the subject reprinted from the 24, May 1960 issue of *Look Magazine*.—J. C. Franklin.

1058. Jones, Edward E., Gergen, Kenneth J., & Davis, Keith E. (Duke U.) **Some determinants of reactions to being approved or disapproved as a person.** *Psychol. Monogr.*, 1962, 76(2, Whole No. 521), 17 p.—2 groups of 40 female students each were selected from 210 who had taken the 4th revision of the Christie's Mach Scales designed to measure Machiavellian values. Those selected for the 2 comparison groups were from the upper 3rd and the lower 3rd of the scoring range, respectively. They were then interviewed in groups of 10, by 10 male graduate students. $\frac{1}{2}$ were urged to create a favorable impression. At the time of the 2nd interview the instructions were reversed. Following each interview the Ss received a standardized communication from her interviewer indicating his positive or negative reaction to her as a person. Her 2nd interview was with a different interviewer. The principal findings were that: (a) the S's impression of a disapproving source were far more negative in tone than that attained from an approving source; (b) those who received approving feedback considered themselves to be more accurate in self-presentation than those who created a negative impression; (c) Machiavellianism had no effect on the S's impression of the interviewers; (d) Ss became more self-deprecatory after negative interviews than after positive ones; (e) different patterns of reaction in self-presentation occurred depending upon where the Ss stood on the Mach scales, with the low's being more responsive to variations in feedback.—M. A. Seidenfeld.

1059. Kay, Herbert. (International Research Associates) **A new approach to projective testing in survey research.** *Publ. Opin. Quart.*, 1959, 23(2), 267-278.—The use of projective techniques in survey studies creates special problems. A report is presented of the trial of a projective test of anxiety employing pictures, the "Disguised Anxiety Scale." With Likert-type scoring, the corrected split-half reliability for 2 samples ($N=110$; $N=64$) was in each case .64 for 12 pictures. "This reliability may

be a bit too low to warrant the use of the scale for individual testing, but it seems adequate enough for large-scale use. . . . The DAS does not measure exactly the same thing that the Taylor Scale of Manifest Anxiety does, though there is some relationship between the two."—E. P. Hollander.

1060. Kelly, E. Lowell. (U. Michigan) **The reassessment of specific attitudes after twenty years.** *J. soc. Issues*, 1961, 17(1), 29-37.—Ss were re-examined after 20 years by means of Likert-type items relating to marital compatibility. Results indicated some stability of attitudes over time but wide changes in attitude were also found. Changes were generally in the direction of acceptance of more conventional positions, reflecting perhaps a tendency toward conformity to prevailing cultural values and attitudes.—A. Barclay.

1061. Koenig, Frederick W., & King, Morton B., Jr. **Cognitive simplicity and prejudice.** *Soc. Forces*, 1962, 40(3), 220-222.—Interviews with 175 students in a southwestern university supported the hypothesis that cognitive simplicity and prejudice are positively related. Devices used were questions about admitting Negroes to specific campus activities and facilities and a Crespi thermometer for indicating personal attitude toward integrating or not integrating the university. Intolerant students were less accurate in predicting the responses of others and showed a greater tendency to perceive others' responses as like their own.—A. R. Howard.

1062. Kosa, J., & Schommer, C. O. (U. North Carolina) **Sex differences in the religious attitudes of Catholic college students.** *Psychol. Rep.*, 1962, 10(1), 285-286.—From responses of 362 male and 174 female college students on 2 indices of religious attitude, it was observed that males score lower and show greater variability as a function of socioeconomic and scholastic factors than females.—B. J. House.

1063. Kraus, Sidney. (Indiana U.) **Modifying prejudice: Attitude change as a function of the race of the communicator.** *Audiovis. Commun. Rev.*, 1962, 10(1), 14-22.—An experiment concerned with the relative effectiveness of Negro and white actors in changing attitudes toward Negroes as measured by semantic differential scales. Four 11-minute kinescope, 2-actor recordings were produced with similar dialog but with either 2 white, 2 Negro, Negro-white, or Negro-white (reversed role) performers. The films were shown to various samples of 11th-grade white children. The film versions using both Negro and white performers produced greater "attitude change" than the other 2 versions.—R. E. Schultz.

1064. Lingoes, James Charles. (Michigan State U.) **Multiple scalogram analysis: A generalization of Guttman's scale analysis.** *Dissert. Abstr.*, 1961, 21(11), 3524-3525.—Abstract.

1065. Lustig, Norman I. **The relationships between demographic characteristics and pro-integration vote of white precincts in a metropolitan southern county.** *Soc. Forces*, 1962, 40(3), 205-208.—A 1958 Democratic primary in Florida between 2 candidates of clearly opposed views was analyzed. 5 demographic variables (education, income, sex ratio, age, and percentage of children) were correlated with pro-integration vote in 45 precincts.

Education and income revealed statistically significant relationships.—A. R. Howard.

1066. McCormack, Thelma H., Elkin, Frederick, & Westley, William A. (U. Toronto) *Anxiety and persuasion. Publ. Opin. Quart.*, 1959, 23(1), 127-133.—A questionnaire study was conducted on attitudes toward a Red Cross blood donation drive of 260 male university students, representing donors and nondonors. A campaign to reduce anxiety by appealing to group values, e.g., loyalty to fraternity, was found to alienate some students and be insufficient for others. "Left to his own ideational devices, the individual overcame his anxiety by defining blood donation as a high moral imperative. The pattern of preference for idealistic symbols, transcending personal and immediate advantage, is contrary to current theories of persuasion, which emphasize the effectiveness of reference group values, ego involvement . . . and other concepts centering about primary group behavior and pragmatic symbols."—E. P. Hollander.

1067. McCoy, Edward P. (Michigan State U.) *Influence of color on audiences' rated perception of reality in film. Audiovis. Commun. Rev.*, 1962, 10(1), 70-72.—4 10-20-second film scenes were printed in both black-and-white and color versions. The black-and-white scenes were shown to 61 Ss in 3 summer college classes; the color scenes to 103 Ss in 4 classes. On 3 of the 4 scenes the black-and-white version "elicited a higher percentage of responses indicating belief that the scenes were shot from actuality."—R. E. Schutz.

1068. McGuire, W. J. (Columbia U.) *Resistance to persuasion conferred by active and passive prior refutation of the same and alternative counterarguments. J. abnorm. soc. Psychol.*, 1961, 63(2), 326-332.—College students were Ss in a study to test hypotheses regarding the vulnerability of arguments to counterarguments. The effect of prior active or passive participation in defense of an idea held; the strength of the present counterargument, and whether the counterargument involved the same or novel material, upon attitude change was investigated. Differential interaction effects were found which indicated that immunization against change was best only under certain conditions. The results are related to previous work by the author and others.—G. Frank.

1069. Martin, James G. (Northern Illinois U.) *Intergroup tolerance-prejudice. J. hum. Relat.*, 1962, 10, 197-204.—Group prejudice is defined as: negative, unfavorable, hostile (or positive, favorable, friendly) attitude toward a group which results in prejudgment of its members." There are 2 basic forms of group prejudice: (a) ethical and (b) empirical. The ethical form is simply a generalized value judgment, e.g., "I don't like Italians." The empirical form, however, is an invalid impression of a group related to prejudice, e.g., "I don't like Italians because they are blond-haired." Various arguments are presented against the practice of prejudice, the most significant one demonstrating that it is socially dysfunctional.—R. M. Frumkin.

1070. Mehling, Reuben. (Indiana U.) *A simple test for measuring intensity of attitudes. Publ. Opin. Quart.*, 1959, 23(4), 576-578.—With 2 groups of 16 Ss each, a scatter diagram was made in which

every S's rating for each intensity scale was plotted against his response to the related semantic differential scale, and a V-shaped curve resulted similar to that found by Cantril and by Suchman in their studies of attitudes. "It would appear that the semantic differential as used in this study does measure both the direction and intensity of attitude."—E. P. Hollander.

1071. Merrill, Irving R. (U. California, San Francisco Medical Center) *Attitude films and attitude change. Audiovis. Commun. Rev.*, 1962, 10(1), 3-13.—Specially prepared paper-pencil measures of "salience, cognitive change, and affect" were administered to 181 Navy reservists both before and after viewing either an "information," "attitude," or "non-related" traffic safety film. Results were analyzed to determine the effect of type of film viewed, time of post-test, and performance on the Flexibility scale of the California Psychological Inventory on shifts in pre- and posttest scores.—R. E. Schutz.

1072. Middleton, Russell. *The civil rights issue and presidential voting among southern Negroes and whites. Soc. Forces*, 1962, 40(3), 209-215.—130 Negro and 147 white registered voters were asked just prior to the general election of 1960 whether they would vote for Nixon or Kennedy. A sampling of respondents via mail survey, immediately following the election, indicated a slight shift in voting intentions after having been interviewed. The college-educated white tended to support Nixon; the college-educated Negro leaned toward Kennedy. White voters emphasized party loyalty; Negro voters laid more stress on issues. "The civil rights issue will clearly continue to play a major role in American presidential elections."—A. R. Howard.

1073. Minkowich, A., & Shaked, A. *Haishiyut hasamkhutit. [The authoritarian personality.] Megamot*, 1962, 12, 24-47.—After theoretical explanations and a review of studies on the authoritarian personality, a pilot study carried out in Israel is given. It aims to study the authoritarian tendency and to compare norms of different ethnic and cultural strata in Israel. A Hebrew application of the F scale is described. 280 university and secondary school students, soldiers, and working youngsters (age 16.5-21; education 8-15 years) were examined in 2 stages. The connection between F scores and education, age, sex, and ethnic origin is given, as well as intercultural comparisons with the tendency to authoritarianism in the United States, Lebanon, and Germany. (English summary)—H. Ormian.

1074. Nunnally, Jum C., & Bobren, Howard M. (U. Illinois) *Attitude change with false information. Publ. Opin. Quart.*, 1959, 23(2), 260-266.—192 undergraduates were given 1 of 6 written messages, 4 concerning different explanations of catatonic schizophrenia and 2 messages (control) not concerned with mental illness; 2 of the "catatonic" messages gave incorrect explanations, and 2 gave plausible explanations. A semantic differential form elicited effects of these treatments on attitudes toward mental illness. Ss who read any of the 4 "catatonic" messages expressed more favorable attitudes than those who read "control" messages. "The results of this study suggest that the popular fear of mental illness and the mentally ill will be reduced if plausible-sounding information is given. . . . It is not suggested that the public be provided with incorrect

information in order to promote favorable attitudes. However, the wisdom of destroying false beliefs when there are no correct beliefs to give in return is questionable . . . [since] existing false beliefs sometimes serve a useful purpose in reducing feelings of 'threat.'"—E. P. Hollander.

1075. Ohashi, M. [Studies on choice behavior and interpersonal perception: V. A replication study with a somewhat different procedure.] *Jap. J. Psychol.*, 1962, 32, 395-404.—A study on relationships analyzing the triad of p's attitude toward q, p's attitude toward o, and q's attitude toward o as perceived by p. Results of previous experiments were not consistent with Heider's theory of balance but were consistent with the author's predictions. This replication was completely compatible with the author's results but not with Heider's.—A. Barclay.

1076. Raven, B. H., Fishbein, M. (U. California, Los Angeles) **Acceptance of punishment and change in belief.** *J. abnorm. soc. Psychol.*, 1961, 63(2), 411-416.—Ss were placed in a situation wherein they were led to expect to experience ESP phenomena. To report no ESP reception led to the experience of electric shock. It was hypothesized that to reduce the cognitive dissonance that had been created, S would reject belief in ESP thereby justifying the experience of the shock. Belief in ESP, before and after the experimental conditions, was determined from an attitude scale regarding this phenomenon (Fishbein & Raven, 1959). The results supported the hypothesis, particularly with regard to the females, less so for the males. It was assumed that males had greater tolerance for the shock, hence the divided findings.—G. Frank.

1077. Reigrotski, Erich, & Anderson, Nels. (UNESCO Inst. Social Sciences) **National stereotypes and foreign contacts.** *Publ. Opin. Quart.*, 1959, 23(4), 515-528.—In 1956-1957, in an attempt to identify and examine the national stereotypes of the Germans and the French as held by other people and by themselves, a coordinated questionnaire was used to interview people in Belgium (482 Flemish and 597 Walloons), France (2006), Germany (2041), and Holland (1000). Respondents were: (a) given 12 descriptive terms and asked which seemed to describe the other peoples and their own people, (b) asked to describe in their own words each of the peoples, and (c) which of the others they considered easiest and which most difficult to get along with. "More important than the identification of stereotype traits, this study lends support to the idea that stereotypes tend to be modified through education and through foreign contact and acquaintance."—E. P. Hollander.

1078. Rettig, S., & Pasamanick, B. (Ohio State U.) **Invariance in factor structure of moral value judgments from American and Korean college students.** *Sociometry*, 1962, 25(1), 73-84.—The factorial structures of the value judgments of 489 American and 513 South Korean college students were compared by "transformation analysis. . . the structure of moral judgments on a specified set of moral issues is considerably invariant across two very different cultures. . . [Lack of invariance appears when] historical conditions predominately [affect] . . . the structure of only one dimension, puritanical morality, which accounts for less than 10 per cent of the explained variance of 50 moral issues

under study. Thus, the thesis of complete ethical relativity appears to be seriously challenged when the structure of moral judgments is the criterion for comparison."—H. P. Shelley.

1079. Rhodes, A. Lewis. (Southern Methodist U.) **Authoritarianism and alienation: The F scale and the Srole scale as predictors of prejudice.** *Sociol. Quart.*, 1961, 2, 193-202.—A modified version of the California F scale and the Srole scale of anomie were administered to a sample of 1027 white male and female high school seniors in Tennessee. Data were also obtained on the educational attainments, religious preferences, and occupational levels of the students' parents and on the peer group activities of the students. There was a significant linear relationship between F scale and anomie scores ($r = +.41$), but a curvilinear relationship ($\eta^2 = .82$) seemed better to describe the data. The moderate, positive relationship between F scale and anomie scores held up when controls for various background factors were introduced, indicating that the relationship was partially independent of social structural factors.—K. E. Davis.

1080. Rosenbaum, Milton E., & Zimmerman, Isabel Madry. (State U. Iowa) **The effect of external commitment on response to an attempt to change opinions.** *Publ. Opin. Quart.*, 1959, 23(2), 247-254.—78 male university students known to hold pro-segregation attitudes were exposed to a facsimile radio program, some in a "private" condition, others in a "public" condition with fellow Ss. Before this, about $\frac{1}{3}$ had been told they were chosen for their pro-segregation position (congruent commitment), another $\frac{1}{3}$ for their antisegregation position (incongruent commitment), and the last $\frac{1}{3}$ nothing (control). Questionnaire responses indicated that "attribution of attitude position by an external source appears to affect response to a succeeding influence attempt when the attribution is congruent with the original position of the individual but not when it is incongruent. . . . No significant effect is found in terms of the public-private dimension as set up here."—E. P. Hollander.

1081. Rothman, Jack. (Columbia U.) **Minority group identification and intergroup relations: A study of Jewish identification and its relationship to outgroup attitudes and associations in a sample of minority group adolescents.** *Dissert. Abstr.*, 1961, 21(12), 3875.—*Abstract.*

1082. Scherke, Felix. **Der politische Charakter.** [The psychological character of politics.] Stuttgart, Germany: Hirzel, 1961. 115 p.—"Political character . . . [is] that aspect of character which is concerned with views and regulations made to arrange and determine attitude and behavior of the individual towards the community and its order, and of the community towards the individual." It develops in 4 stages: (a) undifferentiated, prelogical, harmonic community; (b) differentiated despotism and feudalism; (c) individuation (finding the ego, subjective intellectualism); and (d) maturation (finding the self, objective rationalism). The characterological theory used is that of Kunkel. A chapter on education for a mature community is added.—J. C. Brengelmann.

1083. Searles, Ruth, & Williams, J. Allen, Jr. **Negro college students' participation in sit-ins.**

Soc. Forces, 1962, 40(3), 215-220.—Questionnaire data from over 800 students at 3 Negro colleges seem to support the "thesis that protests were precipitated by Negro students' reference to the white middle class as a standard of comparison." Indications for additional research are cited.—A. R. Howard.

1084. Seth, Madan Gopal. (Boston U.) A study of attitudinal change of Indian students in the United States. *Dissert. Abstr.*, 1961, 21(10), 3160.—Abstract.

1085. Siegman, A. W. (Bar-Ilan U., Israel) A cross-cultural investigation of the relationship between ethnic prejudice, authoritarian ideology, and personality. *J. abnorm. soc. Psychol.*, 1961, 63(3), 654-655.—The studies done re the validation of the relationship between prejudice and authoritarianism on American Ss confounded ethnic prejudice and political attitude by the nature of the sample. An effort was made to investigate ethnic prejudice (as measured by the F Scale) independent of political (radical-conservatism) commitment by using Ss (Israeli students) demonstrating differential attitudes towards Arabs, but unanimity of feeling against Jewish immigrants from North Africa. The results provided a cross-cultural validation of the relationship between prejudice and authoritarianism.—G. Frank.

1086. Walters, E. L., Thomas, E. L., & Acker, C. W. (U. Toronto) Enhancement of punitive behavior by audio-visual displays. *Science*, 1962, 136(3519), 872.—A group of male hospital attendants watched the knife-fight scene from the motion picture *Rebel Without a Cause*. A 2nd control group watched an innocuous educational film. The group who watched the fight (the motion picture with aggressive content), and who were then required to run a conditioning experiment, punished errors more severely, using a significantly higher level of intensity of the punitive electric shock, than did the control group.—Journal abstract.

1087. Weinstein, E. A., & Geisel, P. N. (Vanderbilt U.) Family decision making over desegregation. *Sociometry*, 1962, 25(1), 21-29.—"A sample of 88 Nashville Negro families having children eligible to attend desegregated schools was interviewed. In 38, the child was (or had been) enrolled in a desegregated school; in 50, the child was enrolled in a segregated school." The desegregated group was of a higher socioeconomic status. "Variables characterizing the decision-making process itself were generally similar in both groups. The major differences appeared to be attitudinal, (and remained when SES was statistically controlled.) The desegregated group showed considerably more interest in the general issue of school desegregation and thought it would have more favorable effects on the child. The segregated group was characterized by significantly less favorable attitudes toward 'pioneering' in race relations, and was more socially alienated."—H. P. Shelley.

1088. White, Ralph K. (United States Information Agency) Soviet reactions to our Moscow exhibit: Voting machines and comment books. *Publ. Opin. Quart.*, 1959, 23(4), 461-470.—A report and discussion of Russian visitors' responses to the American Exhibit in Moscow in the summer of 1958. Some summary points: "There were many indications of a basic friendliness to America in the Soviet

public, and great curiosity about life in America . . . evaluations of the Exhibit by way of the voting machines (15,000 'voters') were 85 per cent favorable. . . the seventy-five guides and other Russian-speaking Americans were continually surrounded by eager crowds questioning them about every aspect of American life. . . The voting machines and comment books proved most useful in studying differential reactions to different parts of the Exhibit. . . In evaluating over-all reactions . . . the usefulness of both techniques seems limited by a very sizable positive self-selection bias."—E. P. Hollander.

1089. Withey, Stephen B. (U. Michigan) Public opinion about science and scientists. *Publ. Opin. Quart.*, 1959, 23(3), 382-388.—The public remains in relative ignorance about science, and popular attitudes are naive and unrealistic. Some results are reported from a study conducted for the National Association of Science Writers to determine how people react to the presentation of science in the mass media, and comparisons are drawn with other studies. "About half the adults said that science could study anything! One quarter were not sure of limitations, and another quarter felt science had real limitations, usually in areas of human experience or behavior. When directly queried, only about 1 in 2 would go along with the notion that we can ever really understand human behavior through scientific study. . . The great majority of persons (83 per cent) felt that the world is better off because of science. About 1 in 10 offered some qualification."—E. P. Hollander.

GROUP INFLUENCES

1090. Anderson, N. H., & Barrios, A. A. (U. California, Los Angeles) Primacy effects in personality impression formation. *J. abnorm. soc. Psychol.*, 1961, 63(2), 346-350.—Following the paradigm of research of Asch (1946) and Luchins (1957, 1958), the influence of presentation of data upon the formation of an impression of personality was studied. By presenting some adjectives 1st in one set, 2nd in others, and by delaying presentation of 2nd set of adjectives a few seconds, primacy and recency effects were investigated. In general, primacy effects were significant but recency effects were not.—G. Frank.

1091. Bates, Alan P., & Babchuk, Nicholas. (U. Nebraska) The primary group: A reappraisal. *Sociol. Quart.*, 1961, 2, 181-191.—Cooley's concept of the primary group is held to be in need of clarification if it is to be useful in generating research. The authors argue that in his definition 2 different dimensions have been confused: the sociological dimension (which includes such variables as group size, quantity of interaction, and homogeneity of member characteristics) and the social psychological dimension (which refers to the readiness of members to engage voluntarily in a wide variety of activities together and to the existence of a high level of mutual attraction among group members). The authors assert that the concept should be defined in terms of the social psychological dimension with the sociological variables being considered as conditions affecting the development of primary groups.—K. E. Davis.

1092. Blake, R. R., & Mouton, J. S. (U. Texas) Comprehension of communality in competing solutions. *Sociometry*, 1962, 25(1), 56-63.—"This

study has investigated comprehension of contending group members of points of similarity between proposals submitted by both groups under conditions of inter-group competition. Twenty-six groups, composed of 217 subjects who were in eleven human relations laboratory programs, participated in a standard sequence of ingroup and intergroup activities. During competition groups submitted solutions to a problem. Results demonstrate that, under competitive intergroup conditions, group members are relatively blind to points of communality between their own and contending proposals. The direction of error is for members incorrectly to assign common items to their own solution only, not recognizing that these items are also contained in the position of a competitor.—H. P. Shelley.

1093. Claster, Daniel Stuart. (Columbia U.) Friendship formation in two adjacent interracial housing projects. *Dissert. Abstr.*, 1961, 22(1), 346.—Abstract.

1094. Cleveland, Sidney E., & Morton, Robert B. (Baylor U.) Group behavior and body-image: A follow-up study. *Hum. Relat.*, 1962, 15(1), 77-85.—Barrier scores, representing an index of body-image integrity, were obtained by the administration of the Holtzman Inkblot Test to 69 typical VA openward psychiatric patients. Sociometric questionnaires provided information on group behavior. High barrier Ss received significantly more nominations as influential, independent, active, and goal-striving group members. Low barrier Ss were more frequently designated as parochial and selfish in their group behavior. High barrier Ss were less influenced by group opinion than low barrier Ss.—W. W. Meissner.

1095. Ehrlich, H. J., Rinehart, J. W., & Howell, J. C. (Ohio State U.) The study of role conflict: Explorations in methodology. *Sociometry*, 1962, 25(1), 85-97.—“The results and methods of four role conflict studies were compared in an attempt to ascertain (a) the relative efficacy of various role conflict variables as predictors of role conflict resolutions; (b) the effect of different operational definitions of these variables on the prediction of role conflict; and (c) the degree of stability these variables manifest as predictors of conflict resolution.” With comparable operations and procedures population differences may account for the differences obtained. “Utilizing the perceived expectations of certain audience groups as criteria, approximately the same degree of predictive accuracy was achieved as that achieved using role conflict variables as criteria.” Legitimacy and sanctions are not the most parsimonious predictors.—H. P. Shelley.

1096. Elliott, Charles Henry, Jr. (Cornell U.) Some small group research variables and interaction in the marital dyad as reported by 120 college-educated couples. *Dissert. Abstr.*, 1961, 21(12), 3873.—Abstract.

1097. Exline, R. V. (U. Delaware) Need affiliation and initial communication behavior in problem-solving groups characterized by low interpersonal visibility. *Psychol. Rep.*, 1962, 10(1), 79-89.—Score on n affiliation test was related to content of 1st written message in a group problem-solving task for 16 groups each of 3 men and 3 women. Women had higher n affiliation scores and

wrote more personal messages than men, whose messages were more task oriented. There was a non-significant tendency for high n affiliation scorers to write more personal messages. High scorers made fewer references to group decisions than did low scorers. Several interpretations of the results were discussed.—B. J. House.

1098. Flood, Merrill M. (Ed.) A symposium on game theory. *Behav. Sci.*, 1962, 7, 1-102.—(See 37: 1103, 1104, 1109, 1110, 1112, 1121)—J. Arbit.

1099. Gillis, Willie Mae. (U. Colorado) Influence of position within a social structure upon levels of expected and actual performance. *Dissert. Abstr.*, 1961, 21(10), 3180.—Abstract.

1100. Golembiewski, Robert T. (U. Illinois) The small group: An analysis of research concepts and operations. Chicago, Ill.: Univer. Chicago Press, 1962. xii, 303 p. \$6.00.—“The aim . . . is the determination of the degree of convergence in small-group analysis toward a set of concepts and operations which will permit fruitful integration and synthesis.” Over 1500 reports are reviewed and arranged in a meaningful framework. Among the topics are those dealing with various aspects of small-group dimensions: the structural, the style, and the population. Suggestions for further research are given.—E. D. Lawson.

1101. Graham, D. (U. Durham, England) Experimental studies of social influence in simple judgment situations. *J. soc. Psychol.*, 1962, 56, 245-269.—A review of the experimental work in this field revealed 3 main factors: (a) relatively asocial, (b) social, and (c) personality. It was felt that insufficient attention had been given to questions of meaning and motivation, and that studies were needed on conforming behavior in real life situations.—Author abstract.

1102. Gurman, E. B., & Bass, B. M. (Mississippi Southern Coll.) Objective compared with subjective measures of the same behavior in groups. *J. abnorm. soc. Psychol.*, 1961, 63(2), 368-374.—“Discussion behavior was measured objectively by a social analog computer, while subjective assessments were made by observers and participants aided by a check list. . . . There tended to be agreement between the two different methods of measurement. . . . Observers and participants had difficulty in inferring private events that took place during the discussion. The difficulty of rating private events suggests that observers' ratings are most appropriate for overt events. Yet the successful study of covert events require reliance on objective measurement.”—G. Frank.

1103. Harsanyi, John C. (Wayne State U.) Measurement of social power in n-person reciprocal power situations. *Behav. Sci.*, 1962, 7(1), 81-91.—“This paper tries to extend the concepts of amount of power and strength of power to n-person reciprocal power situations, where all n participants have some power over one another and over the joint policies of their group. Intuitively, the amount of a person's power is a measure of the probability of his being able to achieve adoption of joint policies agreeing with his own preferences; while the strength of his power is a measure of the strength of the incentives he can provide for the other partici-

pants to agree to his policy proposals, and more generally, the strength of his bargaining position against the other participants. To define the strength of power the paper uses the author's bargaining model for the n-person game. The measure obtained in this way can be regarded as a generalization of the power measure of Shapley and Shubik."—*J. Arbit.*

1104. Harsanyi, John C. (Wayne State U.) **Measurement of social power, opportunity costs, and the theory of two-person bargaining games.** *Behav. Sci.*, 1962, 7(1), 67-80.—Several authors have recently suggested measuring social power in terms of its effects; that is, in terms of the changes that A can cause in B's behavior. This paper argues that an adequate measure of power must also contain information on the 2 parties' opportunity costs—the costs to A of acquiring or using his power over B, which the paper calls the costs of A's power; and the costs to B of noncompliance, which measure the strength of B's incentives to compliance and which the paper calls the strength of A's power over B. For bilateral power situations where both parties can exert pressure on the other, a somewhat different game-theoretical measure for the strength of A's power is developed. (20 ref.)—*Journal abstract.*

1105. Hill, Arthur Henry. (U. Minnesota) **Social influence in interdependent escape.** *Dissert. Abstr.*, 1961, 21(10), 3181-3182.—*Abstract.*

1106. Lerner, Melvin J., & Becker, Selwyn. (U. Kentucky) **Interpersonal choice as a function of ascribed similarity and definition of the situation.** *Hum. Relat.*, 1962, 15(1), 27-34.—The relation between the individual's choice of a "similar" or "dissimilar" other person and his attempts to achieve cognitive "balance" in various situations was tested in 2 experiments. In the 1st, 32 high school students preferred similar others as partners in a game in which both could win. In a game in which one partner won at the expense of the other, Ss picked dissimilar partners. In the 2nd experiment, 29 college psychology students could communicate with either a similar (psychology) or dissimilar (nonpsychology) student, after these others had made a social judgment different from that of S. The results supported the balance hypothesis, which predicted choice of a similar other, when the consequences of interaction were irrelevant; when S had to gain agreement from the other, the balance hypothesis was not supported.—*W. W. Meissner.*

1107. Mazor, Moshe. Darkhey ish veisha. [Ways of men and women: Chapters on the psychology of friendship, love, and sex.] Tel Aviv, Israel: Am Oved, 1962. 207 p.—"My main purpose is to impart to the general cultural reader basic information on a common way of life of the couple within the family." The content is based on experiences of psychotherapeutic, depth-psychology minded counseling in problems of marriage, harmony and disharmony in human relations, and the pathology of sexual life.—*H. Ormian.*

1108. Patterson, Samuel C. (AFL-CIO, Washington, D. C.) **Patterns of interpersonal relations in a state legislative group: The Wisconsin Assembly.** *Publ. Opin. Quart.*, 1959, 23(1), 101-109.—70% of the members of the 1957 Wisconsin Assembly were interviewed in early 1958; and an additional 17% were reached by mail, to study interpersonal

relations in that body. Sociometric analysis revealed that friendship choices paralleled patterns of influence and communication among the legislators, hence friendship roles were functional roles. "Individuals who assume the legislative role have diverse backgrounds and diverse social, political, and economic experience, and different reference groups are salient for them. The informal friendship structure of the legislature tends to lessen such differences, to mitigate against the development of potential conflicts, to provide channels of communication and understanding among members who share goals."—*E. P. Hollander.*

1109. Rapoport, A., & Orwant, C. (U. Michigan) **Experimental games: A review.** *Behav. Sci.*, 1962, 7(1), 1-37.—A review of research into game theory and decision making. The review considers both 2- and n-person games, zero-sum and non-zero-sum games, games where payoffs are known and unknown, and simulations which involve games. A glossary is appended. (47 ref.)—*J. Arbit.*

1110. Rapoport, Anatol; Chammah, Albert; Dwyer, John, & Gyr, John. (U. Michigan) **Three-person non-zero-sum nonnegotiable games.** *Behav. Sci.*, 1962, 7(1), 38-58.—4 experiments are reported in each of which 3 persons participated. Communication among the parties was, in general, impossible. The findings are analyzed, and a mathematical model is proposed which is relatively effective in predicting the gross percentage of cooperative behavior in each game. The differing personalities of the players significantly affected their selections of strategies.—*Journal abstract.*

1111. Rosenberg, L. (Purdue U.) **Group size, prior experience, and conformity.** *J. abnorm. soc. Psychol.*, 1961, 63(2), 436-437.—An effort was made to validate the findings of 2 previous workers regarding the effect of the size of a group (Asch, 1952) and prior experience (Mausner, 1953, 1954, 1957) upon conformity in the judgment of the length of lines. The results of Asch and Mausner were reproduced; there is a curvilinear relationship between size of a group (from 2 to 5) and influence on S to conform to what he believes are the estimates of the lines made by others. Prior experience in making judgments of the lines was also found to influence the accuracy of judgment.—*G. Frank.*

1112. Shapley, L. S. (RAND Corp., Santa Monica, Calif.) **Simple games: An outline of the descriptive theory.** *Behav. Sci.*, 1962, 7(1), 59-66.—Simple games refer to multiperson games in which each coalition that might form is either all-powerful or completely ineffectual. The mathematical techniques and theoretical structure involved in these simple games are discussed. Comments are made regarding the application of this model to the United States Congress, the United Nations Security Council, or "any 'political' structure in which power and authority, rather than a monetary type of payoff, is the fundamental driving force." Implications for organizations, committees, and "neural nets" are noted.—*J. Arbit.*

1113. Shaw, M. E., & Penrod, W. T., Jr. (U. Florida) **Validity of information, attempted influence, and quality of group decisions.** *Psychol. Rep.*, 1962, 10(1), 19-23.—"Five groups of three persons each were run in each cell of a 2 × 4 fac-

torial design involving two degrees of attempted influence (weak and strong) and four degrees of information validity (.00, .331%, .662%, & 1.00). Each group was required to make a series of binary choices." A confederate, posing as an S, in each group proposed choices. "Information validity was positively related to the group's performance score, even when the confederate's information resulted in well below chance performance." No difference was obtained between weak and strong influence.—*B. J. House.*

1114. Smith, Alexander B., Bassin, Alexander, & Froehlich, Abraham. (Kings County Court) Interaction process and equilibrium in a therapy group of adult offenders. *J. soc. Psychol.*, 1962, 56, 141-147.—This study was part of a larger interdisciplinary study focused on the interaction process and the sociometric relations developed within a therapy group of probationers. It was found that the phase sequence of the probation therapy group did not follow the phase sequence pattern of Bales' laboratory problem solving model. Furthermore, the failure of the probation group to establish equilibrium suggested that this group was more nearly a therapy group of the kind described by Talland than a problem solving group.—*Author abstract.*

1115. Sommer, R. (U. Alberta, Edmonton) The distance for comfortable conversation: A further study. *Sociometry*, 1962, 25(1), 111-116.—38 males and 144 females after touring a large mental hospital were asked to discuss their opinions. Pairs of Ss were ushered to a portion of a large lounge where there were 4 chair separated by previously arranged distances. Data consists of the chairs selected by S for their discussion. Preferences for sitting across from one another have 2 exceptions: when the distance across is too far for comfortable conversation and when the distance across exceeds the distance side-by-side. When the 2 distances are equal, or when the distance side-by-side exceeds the distance across, people strongly prefer to sit opposite one another. Possible modifications on the findings are discussed, e.g., size of the room, topic being discussed, relationship between people.—*H. P. Shelley.*

1116. Strodtbeck, F. L., & Hook, L. H. (U. Chicago) The social dimensions of a twelve-man jury table. *Sociometry*, 1961, 24, 397-415.—"The multidimensional scaling . . . of a matrix of post-session preferences of jurors resulted in the identification of table length, visual accessibility, and table width as the three primary components of 'social distance' which . . . was postulated to be inversely related to the square root of preferences received. The End and Middle positions were shown to have smaller contributions from each of the components of 'social distance' than the Flank and Corner positions. The 'nearness' of a person . . . to a given juror is believed to have arisen because his reactions to the trial could be inconspicuously watched, and when this was done, the reference juror tended to deduce that he was likeminded and dependable to a greater degree than jurors whose reactions were less easily observed."—*H. P. Shelley.*

1117. Tannenbaum, A. S. (U. Michigan) Reactions of members of voluntary groups: A logarithmic function of size of group. *Psychol. Rep.*, 1962, 10(1), 113-114.—In a study of groups of League of Women Voters it was found that reactions

of members were correlated more highly with log size of group than with linear size. A group analogue to the Weber-Fechner law is discussed.—*B. J. House.*

1118. Turk, Theresa, & Turk, H. (U. North Carolina) Group interaction in a formal setting: The case of the triad. *Sociometry*, 1962, 25(1), 48-55.—"Conferences held by three-person nursing teams permitted both special propositions about the triad and general propositions about the small group to be investigated within a formal 'natural' setting. The research confirmed Caplow's prediction that three-person systems will be free of coalitions if the power of one member is greater than that of the other two combined. It also confirmed predictions, felt to hold true for any small group, that both the volume of communication and the rate of positive socio-emotional support between any pair of members is a function of the combined power of the pair, with the higher-powered member communicating more to the other and supporting him more. The implications of these findings for research in formal organization are discussed in functional terms."—*H. P. Shelley.*

1119. Vidulich, R. N., & Kaiman, I. P. (Louisiana State U.) The effects of information source status and dogmatism upon conformity behavior. *J. abnorm. soc. Psychol.*, 1961, 63(3), 639-642.—This study explored the relationship between degree of authoritarianism, as measured by Rokeach's (1960) Dogmatism Scale, and susceptibility to influence by individuals of high and low social status. College Ss were placed in the autokinetic problem (see 10: 1332); a confederate of E, introduced as either a research scientist or a high school senior, gave his responses to the situation prior to S. The confederate's judgments were contrived so as to disagree with S's. Ss high in authoritarianism tended to agree with (conform to) the responses of the "scientist"; Ss low in authoritarianism, with the "high school student."—*G. Frank.*

1120. Wiest, William M., Porter, Lyman W., & Ghiselli, Edwin E. (U. California, Berkeley) Relationship between individual proficiency and team performance and efficiency. *J. appl. Psychol.*, 1961, 45(6), 435-440.—Using 64 pairs of college students doing jigsaw puzzles, team and individual performance was compared. They could work the puzzles better alone than when doing it in pairs cooperatively, however, relatively poor prediction is obtained from measures of individual proficiency. The performance of the most efficient member of a team, however, predicted slightly better both team performance and team efficiency. "The more similar the two members of a team were in individual proficiency, the more likely they were to form a proficient and effective team."—*J. W. Russell.*

1121. Wilson, Kellogg V., & Bixenstine, V. Edwin. (Nebraska Psychiatric Inst.) Forms of social control in two-person, two-choice games. *Behav. Sci.*, 1962, 7(1), 92-102.—In this paper, the importance of power as an influence on choice of strategies is analyzed; and the application of game theoretic concepts to real-life social conflicts is discussed. In mixed-motive games, the amount of control which a player can exercise over his own and his opponents' gains and losses obviously has an important influence on choices of strategy for both.—*Journal abstract.*

1122. Wilson, W., & Miller, N. (Northwestern U.) Shifts in evaluations of participants following intergroup competition. *J. abnorm. soc. Psychol.*, 1961, 63(2), 428-431.—"Intergroup competition was simulated by having two-man teams compete against two stooges on several tasks. Winning and losing was manipulated by having the stooges win against half the teams and always lose against the other half. The difference in favorability of a team's before and after ratings of the other participants on 27 personality traits was the dependent variable . . . the hypothesis that 'liking' is increased by interaction received . . . support."—G. Frank.

LEADERSHIP

1123. Armila, Jose. (U. Michigan) Leader-follower frame of reference in political behavior. *Dissert. Abstr.*, 1961, 21(12), 3869-3870.—*Abstract.*

1124. Barlund, Dean C. (Northwestern U.) Consistency of emergent leadership in groups with changing tasks and members. *Speech Monogr.*, 1962, 29, 45-52.—A situational theory of leadership proposes that people are leaders because their talents are momentarily essential to a group. To measure the degree of consistency in leadership status, 25 Ss were randomly assigned to 6 groups attempting to solve problems having motor, artistic, mathematical, literary, social, and spatial characteristics. Upon concluding each stage leaders were nominated for another round of a similar activity. Leadership was found to depend upon situational variables, 2 of which seemed to involve changes in group tasks and membership.—D. Lebo.

1125. Cohen, Arthur M., & Bennis, Warren G. (Boston U.) Continuity of leadership in communication networks. *Hum. Relat.*, 1961, 14(4), 351-367.—A Leavitt-type arrangement (see 25: 7439) was employed in 2 experiments on leader selection in various communication systems. The 1st experiment showed that groups which were changed from a wheel system to a circle system tended to organize themselves into the more efficient chain system, but with different leaders than in the antecedent wheel arrangement. The 2nd experiment confirmed this finding and also indicated that the opportunity to maintain or change leaders in the antecedent wheel networks led to greater continuity of leadership when the groups developed into chains. (17 ref.)—W. W. Meissner.

1126. Kipnis, David, & Lane, William P. Self-confidence and effective leadership. *USN Bur. Naval Personnel tech. Bull.*, 1962, No. 62-3. iv, 11 p.—This study deals with the relationship between petty officers' confidence in their leadership abilities and the kinds of techniques of supervision they use. Petty officers who lacked self-confidence more frequently placed reliance upon administrative regulations, such as placing a man on report, as well as unofficially turning their supervisory problems over to a superior. Petty officers high in self-confidence were more likely to place reliance upon face-to-face discussions with subordinates. The findings suggest a need to provide the young petty officer with training and experience in handling men and in solving supervisory problems before he is given direct leadership responsibilities.—*USN BNP.*

1127. Scarborough, O., & Harris, B. M. (U. Texas) Graduate students' perceptions of leader-

ship roles. *J. teacher Educ.*, 1962, 13, 60-64.—An investigation of patterns of role perceptions of graduate students in educational supervision indicated the existence of a variety of perceptions of expert process and resource roles for the administrator and consultant. In general the students saw the administrator as more "the expert" than the consultant.—E. M. Bower.

LANGUAGE & COMMUNICATION

1128. Berelson, Bernard. (Columbia U.) The state of communication research. *Publ. Opin. Quart.*, 1959, 23(1), 1-6.—Critical survey of "four major approaches to communication research," and 6 less influential ones, from the past 25 years. Includes as major: "political approach" (Laswell), "sample survey approach" (Lazarsfeld), "small-groups approach" (Lewin), and "experimental approach" (Hovland). The "great ideas . . . of the major figures . . . have to a substantial extent worn out. No new ideas of comparable magnitude have appeared to take their place." One can regret this or "be grateful that the field has a period of time to assimilate, incorporate, and exploit the imaginative innovations of the major figures." Separate commentaries follow by Wilbur Schramm, David Riesman, and Raymond A. Bauer.—E. P. Hollander.

1129. Bergin, Allen Eric. (Stanford U.) Personality "interpretations" as dissonant persuasive communications. *Dissert. Abstr.*, 1961, 21(11), 3520.—*Abstract.*

1130. Bern, Henry A. (Indiana U. Audiovisual Center) Audiovisual "engineers?" *Audiovis. Commun. Rev.*, 1961, 9(4), 186-194.—This article has presented some of the "qualifications" of audiovisual communication to absorb and transmit to the field of education as a whole the impact of the technological revolution of our day. To support the claim of closeness of relationship between audiovisual communication and technology, evidence was offered in relation to (a) suitability of theoretical concepts, (b) orientation of leadership, and (c) research rooted in engineering frameworks. Finally, the hypothesis was offered that the underlying basis for these qualifications is a concern with information and communication theory which audiovisual communication has "absorbed," principally through contact with the field of human engineering.—E. L. Borrowman.

1131. Brosnahan, L. F. The sounds of language. Cambridge, England: Heffer, 1961. vi, 250 p. 25s.—Language, usually studied as a social and cultural phenomenon, is investigated for influences of hereditary factors. Relations between individuals, groups, and populations and the sounds of their speech are examined. Patterns of sound differences and similarities between languages are scrutinized as are sound changes within a language.—E. Y. Beeman.

1132. Cohen, A. M.; Mennic, W. G., & Wolkon, G. H. (Boston U.) The effects of continued practice on the behaviors of problem-solving groups. *Sociometry*, 1961, 24, 416-431.—"This study was concerned with the effects of continued practice on the behaviors of groups trying to solve a relatively large number of problems [60]. 10 groups of 5 men were assigned to 1 of 2 communication networks: a wheel and a circle. Questionnaires were completed measuring answer certainty, satisfaction with job, other

members and task, and perception of leadership. Some of the differences found were (a) wheel groups were more effective in all criteria except satisfaction with job, task and other members; and (b) wheel groups learned faster. Since the groups continued to learn over longer periods than previous studies, short duration studies may lead to erroneous conclusions regarding learning.—H. P. Shelley.

1133. Davison, W. Phillips. (RAND Corp.) On the effects of communication. *Publ. Opin. Quart.*, 1959, 23(3), 343-360.—A view of communication in terms of cause and effect (involving a message sent from its source to its destination) may overlook the recipients' activities, needs, and characteristics, and the way in which communications may improve their relationships with their environment. Data are presented from a study of American foreign affairs officials.—E. P. Hollander.

1134. Durand, Marguerite. La spécificité du phonème application au cas de r/l. [Phonemic specificity: The case of (r) and (l).] *J. Psychol. norm. pathol.*, 1960, 57(4), 405-419.—The consonants (r) and (l) are not differentiated in some languages at all, are etymologically interchangeable in some, and represent 2 or more distinct phonemes in still others. The present analysis finds that the relationship between the 2 consonants varies with the phonemic characteristics of (r).—M. L. Simmel.

1135. Greenberg, Bradley S., & Tannenbaum, Percy H. Communicator performance under cognitive stress. *Journalism Quart.*, 1962, 39(2), 168-178.—The effect on a communicator of information which attacks his beliefs (thus putting him under stress) was studied by exposing one group to attack on a strongly held belief, while another received supportive treatment and a 3rd was not stimulated. Ss who were placed under cognitive stress took longer to communicate, made more errors, and communicated less adequately.—D. E. Meister.

1136. Gregory, John Robert. (U. Illinois) Some psychological aspects of motion picture montage. *Dissert. Abstr.*, 1961, 22(1), 317.—Abstract.

1137. Hartman, Frank K. (Dickinson Coll.) Single and multiple channel communication: A review of research and a proposed model. *Audiovis. Commun. Rev.*, 1961, 9(6), 235-262.—The review is concerned with 3 channels of information presentation—pictorial, auditory verbal, and print—with emphasis on "the effects of these channels when used in combination to present information." (129-item bibliogr.)—E. L. Borrowman.

1138. Jakobovits, Leon A., & Lambert, Wallace E. (McGill U.) Semantic satiation among bilinguals. *J. exp. Psychol.*, 1961, 62(6), 576-582.—"The phenomenon of semantic satiation was related to the mediation theory of compound and coordinate bilingualism. It was predicted that compound bilinguals, having interdependent language systems, will exhibit a cross-linguistic satiation effect (cross-satiation), while coordinate bilinguals, having functionally independent language systems, would not exhibit the cross-satiation effect. The results supported the prediction that the two types of bilinguals would behave differently and showed that compounds clearly exhibit the cross-satiation effect while coordinates react in the opposite manner. Some additional analyses were discussed which have a further bearing upon the dif-

ferences in the language structures of compound and coordinate bilinguals."—J. Arbib.

1139. Jakobovits, Leon A., & Lambert, Wallace E. (McGill U., Canada) Semantic satiation in an addition task. *Canad. J. Psychol.*, 1962, 16(2), 112-119.—S repeated a digit aloud for 15 sec. before adding 2 single-digit numbers presented in sequence. When the repeated digit was the same as one of those added, solution time was greater as predicted. It was assumed that the increased latencies resulted from reductions in the meanings of the mathematical symbols. With practice there was a steady increase in the experimental latencies, while control latencies decreased.—R. S. Davidson.

1140. Kaplan, Bernard. (Clark U.) Radical metaphor, aesthetic, and the origin of language. *Rev. existent. Psychol. Psychiat.*, 1962, 2(1), 75-84.—"Radical metaphorizing," a conception introduced by Ernst Cassirer, refers to the representing of an experience in a medium foreign to that of its original expression. By "esthetic" is meant, in general, expressive or imaginative activity. A number of experimental studies are reviewed which suggest the same finding: that when a physically invariant pattern is taken by S to represent different conceptions, he will "esthetically" structure and restructure the pattern "so that a relationship of 'fittingness' obtains between vehicle and referent."—J. Lyons.

1141. King, William A. (Norair Division, Northrop Corp., Los Angeles) Communication theory and the Allport concept of structure. *Audiovis. Commun. Rev.*, 1961, 9(2), 119-128.—Postulates of the Allport event-structure theory are examined as possible bases for communication theory.—E. L. Borrowman.

1142. Lyle, Jack. (U. California, Los Angeles) Communication, group atmosphere, productivity, and morale in small task groups. *Hum. Relat.*, 1961, 14(4), 369-379.—Journalism students were organized into 24 4-man groups and were presented a news-story writing task to study the relations of communication structure and group atmosphere to group oral communication, morale, and productivity. Democratic groups had a higher rate of talk-irrelevant communication and of task-relevant communication. Democratic groups worked fastest with restricted communication, while authoritarian groups worked fastest with open communication; however, the differences were not significant. The denial of feedback to the editor had the effect of lowering morale in democratic, but not in authoritarian groups. (18 ref.)—W. W. Meissner.

1143. McNelly, John T. Meaning intensity and interest in foreign news topics. *Journalism Quart.*, 1962, 39(2), 161-168.—"This experimental study relates the acquisition of interest in the subject matter of news to the acquisition of meaning for it. Subjects who were exposed to news stories about previously unfamiliar topics acquired interest in the topics along with more intense meanings for them."—D. E. Meister.

1144. Nokes, Peter. Feedback as an explanatory device in the study of certain interpersonal and institutional processes. *Hum. Relat.*, 1961, 14(4), 381-387.—The concept of feedback is discussed in terms of the individual and the management of large institutions. Inadequate feedback to the individual

results in anxiety; and where it is available but ignored, it seems to be accompanied by autistic thinking. Parallels on the level of social institutions are pointed out. The conclusion is drawn that psychiatric concepts can be used to explain malfunctioning in large institutions and vice versa.—*W. W. Meissner.*

1145. Oléron, Geneviève. *Compréhension d'un texte et liaisons entre les mots.* [Comprehension of a text and relations between words.] *Année psychol.*, 1961, 61, 377-395.—The successful reconstruction of a text is the criterion of the comprehension of a significant relation between the words and thus of the comprehension of the ideas in the original text. The more the text is broken up, the more difficult is the reconstruction. Constraint imposed by customary verbal associations plays a role as does the uncertainty created by equivalence of the role which several words can play in relation to one other word when the syntax does not completely determine the choice.—*G. Rubin-Rabson.*

1146. Prutsman, Thomas Damon. (Florida State U.) The efficacy of some commonly used verbal stimuli as a function of the response class with which they are used. *Dissert. Abstr.*, 1961, 21(12), 3864.—*Abstract.*

1147. Resnick, A. (International Business Machines, Yorktown Heights, N. Y.) Relative effectiveness of document titles and abstracts for determining relevance of documents. *Science*, 1961, 134(3484), 1004-1005.—Individuals who received documents through a selective dissemination of information system were asked to determine the relevance of documents to their work interests on the basis of titles and of abstracts. The results indicate that there was no significant difference between the usefulness of titles and of abstracts for this purpose.—*Journal abstract.*

1148. Reznikov, L. O. Neopozitivistskaia gnozeologija i znakovaia teoriia iazyka. [Neopositivistic gnosology and the sign theory of language.] *Vop. Fil.*, 1962, 16(2), 99-109.—The author explores the relationship of "language, thought, and objective reality" and, in particular, the problem of whether language should be viewed as merely a "system of signs." He concludes that the sign theory of language is mistaken, since it rests on a "false gnosological basis." From the point of view of a consistent materialism there is no reconcilability between the view that language is the "direct reality of thought" and the view that language is only a system of signs, for the latter leads to a denial of the "reflection of the object in the meaning of the word" or to the "elimination of meaning from the composition of the word and its reduction to mere sounding."—*I. D. London.*

1149. Richmond, Jo F., & Buehler, Roy E. Interpersonal communication: A theoretical formulation. *J. Commun.*, 1962, 12, 3-10.—"Communication is a transactional process, occurring on all levels of biosocial integration. . . . We have defined communication transactions in terms of process which occur on four major levels: the biochemical, the motor gestural, speech and technology. These communication levels are seen as functionally related to the levels of socio-cultural integration."—*D. E. Meister.*

1150. Rossi-Landi, Ferruccio. (U. Padova, Italy) *Significato, comunicazione e parlare comune.* [Meaning, communication and common speech.]

Padova, Italy: Marsilio, 1961. 291 p. L. 2500.—The author examines certain general conditions that render meaning and communication possible in our common speech habits. Some general theories of a cognitive-speculative type are considered. The book consists of the following chapters: "Material and Method," "Universes of Discourse," "Empiricism and Idealism in the Study of Meaning," "Nature and History of Common Speech," "Common Speech and Scant Significance," "The Methodological Function of Speech," "Separate and Associative Meaning," "The Communicative Situation and the Changing Context," "Communication between Diverse Languages and Various Levels of Discourse," and "Some Conclusive Reflections." Name index and appendix are included.—*N. De Palma.*

1151. Runkel, P. J. (U. Illinois) Replicated tests of the attraction-communication hypothesis in a setting of technical information flow. *Amer. sociol. Rev.*, 1962, 27(3), 402-408.—To test the hypothesis that "degree of respect between individuals is associated with the amount of relevant communication which takes place between them," questionnaires were administered to faculty members from 28 secondary schools to determine which staff members they respected in matters of counseling or testing, and then other questionnaires were given to small groups of the faculty members to ascertain the communication patterns among these people. Analyses of the data showed that the general level of respect was higher among people who had frequent communication with each other on relevant matters (dealing with counseling and testing) than among people who communicated with each other less frequently. Official position in the school did not account for any important part of this relationship.—*L. Berkowita.*

1152. Thomas, E. J., Webb, Susan, & Tweedie, Jean. (U. Michigan) Effects of familiarity with a controversial issue on acceptance of successive persuasive communications. *J. abnorm. soc. Psychol.*, 1961, 63(3), 656-659.—The relationship between primacy and recency of communication and familiarity with the topic were explored. Attitudes were measured of high school students towards an article on a controversial subject written from both a pro and a con standpoint. Attempts to establish primacy and recency effects failed.—*G. Frank.*

1153. Upton, Albert. *Design for thinking: A first course in semantics.* Stanford, Calif.: Stanford Univ. Press, 1961. 240 p. \$5.50.—This book, designed for the college freshman, is "about the part language plays in human life." There are 18 chapters each with a set of study questions. The chapter titles are: "Orientation," "Brain and Mind," "Analysis," "Meaning," "Signs," "Ambiguity," "Semantic Growth," "Metaphor," "Communication," "The Psychology of Qualification," "The Theory of Definition," "The Practice of Definition," "Symbolic Instruments," "Chance," "Problem-Solving," "Exposition," "Language and Adjustment," and "The Noblest Function of Language."—*C. J. Adkins.*

1154. Wason, P. C. The retention of material presented through précis. *J. Commun.*, 1962, 12, 36-43.—The aim of the experiment was to determine whether original written material and a précis of that material differed significantly in respect to accuracy and amount of material recalled. Recall from

originals was significantly superior to that from precís.—*D. E. Meister.*

Speech & Linguistics

1155. Boyer, Ernest L., & Garwood, Victor P. Effects of delayed sidetone and speech content on elapsed reading time. *J. Commun.*, 1962, 12, 44-50.—The influence of affective speech content upon the speech performance of 60 Ss under nondelayed and delayed sidetone conditions was investigated. Pleasant, unpleasant, and neutral sentences were read under nondelay and delay conditions. The length of reading time for both the pleasant and unpleasant sentence groups was significantly longer than that for the neutral sentence group.—*D. E. Meister.*

1156. Chase, Richard Allen, & Guilfoyle, George. (St. Elizabeths Hosp., Washington, D. C.) Effect of simultaneous delayed and undelayed auditory feedback on speech. *J. speech hear. Res.*, 1962, 5(2), 144-151.—15 male adults read 50-word passages under normal conditions, undelayed, and delayed auditory feedback, and 3 conditions of combined delayed and undelayed auditory feedback in which the gain was progressively $\frac{1}{2}$ of, $\frac{2}{3}$ of, and equal to that of the delayed auditory feedback. All combined conditions reduced the amount of disturbance in speech due to delayed auditory feedback alone. The largest proportion of improvement resulted from simultaneous synchronous feedback $\frac{1}{2}$ the gain of the delayed auditory feedback.—*M. F. Palmer.*

1157. Creech, Henry B. (Ohio State U.) Distribution of measures for syllable duration, reading rate. *J. speech hear. Res.*, 1962, 5(1), 29.—A 198-syllable passage was read by 10 students enrolled in a university course in elementary speech and was re-recorded at a controlled speed multiplied by a factor of 2. The E monitored the recording and marked the dictionary syllabication. The frequency distribution of syllable duration did not fit a normal curve. 120 university students, also enrolled in an elementary speech course, read 12 5-syllable phrases of which the last 6 were recorded. The mean syllable duration for each reader was put into a frequency distribution. The results indicate that normal readers may be assumed to be distributed normally in their reading rates.—*M. F. Palmer.*

1158. Frijda, Nico H., & van de Geer, John P. Codability and recognition: An experiment with facial expressions. *Acta psychol., Amsterdam*, 1961, 18, 360-367.—The present experiment in the recognition of facial expressions from photographs supports Whorf's theory of the interdependence of language and cognition, but is ambiguous in respect to his claim concerning causal direction. Influences in both directions might be relevant.—*G. Rubin-Rabson.*

1159. Hecker, Michael H. L. (Massachusetts Inst. Technology) Studies of nasal consonants with an articulatory speech synthesizer. *J. Acoust. Soc. Amer.*, 1962, 34, 179-188.—An electrical analog of the nasal cavities was designed for use in conjunction with a dynamically controllable analog of the vocal tract. The acoustical coupling between vocal tract and nasal cavities is electronically variable. It was found that more natural-sounding syllables are obtained when the velopharyngeal coupling varies slowly with time compared to changes in vocal-tract configuration. The experiments demonstrate that

speech can be synthesized from articulatory information in a straightforward and natural manner.—*A. M. Small, Jr.*

1160. Holbrook, Anthony, & Fairbanks, Grant. (Wayne State U.) Diphthong formants and their movements. *J. speech hear. Res.*, 1962, 5(1), 35-58.—6 diphthongs and 10 vowels were spoken in words by 20 males, all native General American speakers. Variations of frequencies and amplitudes of the lower 3 formants showed the following: The durations of the formants were relatively short in /eI/, /OU/, /ju/, and longer in /aI/, /oI/, and /aU/. Formants One (F_1) and Two (F_2) coincided approximately throughout. F_1 and F_2 frequencies diverged during their course in /eI/, /aI/, and /oI/, but tended to maintain a constant ratio as both lowered during /OU/, and converged during /aU/ and /ju/. The coordinated plots of F_1 and F_2 showed extensive overlap of vowel areas, but these were mutually exclusive when the 10 samples closest to the median were considered.—*M. F. Palmer.*

1161. Moll, Kenneth B. (U. Iowa) Velopharyngeal closure on vowels. *J. speech hear. Res.*, 1962, 5(1), 30-37.—Cinefluorographic pictures were taken of 10 adult Ss, who exhibited no abnormal speech patterns, during the production of 60 CVC (constant, vowel, constant) syllables and 4 isolated, sustained vowel sounds. Low vowels exhibit less velopharyngeal closure than high vowels. Vowels adjacent to the consonant /n/ exhibit incomplete velopharyngeal closure, with vowels preceding the nasal consonant having less closure than those following. There were no significant differences between the effects of non-nasal consonant contexts on vowel closure. There was a tendency for less closure on isolated vowels than on those in non-nasal, consonant contexts.—*M. F. Palmer.*

1162. Peterson, Gordon E., & Lehiste, Ilse. (U. Michigan) Duration of syllable nuclei in English. *J. Acoust. Soc. Amer.*, 1960, 32(6), 693-703.—The influence of preceding and following consonants on the duration of stressed vowels and diphthongs in American English was studied. A set of 1263 CNC words, embedded in the same carrier phrase and pronounced by a single speaker, was analyzed spectrographically. Although the influences of various classes of consonants on the duration of the syllable nucleus was determined, the general results show that the final consonant, but not the initial consonant have a significant effect.—*A. M. Small, Jr.*

1163. Shoup, J. E. (U. Michigan) Phoneme selection for studies in automatic speech recognition. *J. Acoust. Soc. Amer.*, 1962, 34, 397-403.—2 methods for the selection of speech material to be used in studies in automatic speech recognition are suggested. The selection can be based on the high frequency of occurrence of the individual phonemes, on the high yield of words by the phonemes, or on some combination of these 2 criteria. A combination of the 2 criteria appears to be most satisfactory. The phoneme selection was derived from the 500 most frequently occurring words, as given by Thorndike and Lorge. Some consideration was also given to the frequencies of occurrence of the phonemes. The phonemes are presented in cumulative order according to the number of words by which the list is increased as each successive phoneme is added.—*A. M. Small, Jr.*

1164. Spuehler, Henry E. (Purdue U.) **Delayed sidetone and auditory flutter.** *J. speech hear. Res.*, 1962, 5(2), 124-132.—10 male and 10 female Ss reading aloud under conditions of auditory delay and flutter show that normal hearing individuals will react to auditory sidetone presentation and auditory flutter rates by deviations in words per minute, phonation time ratio, and average speech power. Male Ss are less affected by the experimental conditions than female Ss. There are some immediate carryover effects on the speech of the individuals.—*M. F. Palmer.*

1165. Thatcher, James W., & Wang, William S.-Y. (Communication Sciences Lab., Ann Arbor, Mich.) **The measurement of functional load.** *USAF OSR Rep.*, 1962, No. 8. 30 p.—The concept of functional load is traditionally used to quantify "extent of contrast" among a set of phonemes. An attempt is made in this paper to associate with the concept a precise meaning within the framework of communication theory. It is suggested that any definition of functional load which conforms to the traditional usage of the concept must satisfy at least the 5 conditions given in this paper. The definitions of functional load given by Greenberg and Hockett, as well as several other possible definitions, are examined with respect to these conditions. Some empirical consequences of this line of investigation are discussed.—*USAF OSR.*

1166. Vanhuyse, A. **Tweetaligheid.** [Bilingualism.] *Tijdschr. Stud.-Beroepsorient.*, 1961, 8, 97-110.—The concept of bilingualism is analyzed from the linguistic and psychological points of view. Pragmatic, cultural, and scholastic factors are found to be determining. A short review of experiments on the subject and of the techniques used by research workers is given.—*R. Piret.*

Mass Communication

1167. Bauer, Raymond A., & Bauer, Alice H. (Harvard U.) **America, "mass society" and mass media.** *J. soc. Issues*, 1960, 16(3), 3-66.—There undoubtedly is "some determinate relationship between a society and its system of communications," and this relationship must work in both directions. This statement would be agreed upon by almost everyone, but more precise assertions stir up conflicts. Contrasting assumptions about America's mass communication are compared, and a general history of this thinking is presented. Research evidence on the mass media is summarized and the concept of "mass society" re-evaluated.—*E. Y. Beeman.*

1168. Bauer, Raymond A., & Bauer, Alice H. (Harvard U.) **Counter-comment. III.** *J. soc. Issues*, 1960, 16(3), 85-87.—The authors answer Mr. Coser's comments (see 37: 1169) on their article (see 37: 1167).—*E. Y. Beeman.*

1169. Coser, Lewis A. (Brandeis U.) **Comments on Bauer and Bauer. II.** *J. soc. Issues*, 1960, 16(3), 78-84.—Comments on the critique of the critics of mass society by Raymond A. Bauer and Alice H. Bauer (see 37: 1167).—*E. Y. Beeman.*

1170. De Fleur, Melvin L., & Petranoff, Robert M. (Indiana U.) **A televised test of subliminal persuasion.** *Publ. Opin. Quart.*, 1959, 23, 168-180.—Subliminal content was broadcast both in a closed-circuit experiment and over a commercial television

station. In the former, significantly better than chance recognition of 1 of 5 symbols was found. For the latter, persuasive content yielded variable effects depending upon combinations of subliminal and more ordinary persuasive techniques. It was concluded that subliminal messages afford only inefficient communication and are not, in themselves alone, effective as persuasive devices.—*E. P. Hollander.*

1171. Jones, Robert L., & Carter, Roy E., Jr. (U. Minnesota) **Some procedures for estimating "news hole" in content analysis.** *Publ. Opin. Quart.*, 1959, 23(3), 399-403.—"Many content analysts who study daily newspaper material wish to express raw amounts of content as percentages of total news space. . . . The main problem involved in calculating the proportions is that of obtaining an appropriate denominator term without spending exceedingly large amounts of time and money in hand-measuring non-advertising space, or 'news hole.' The numerator term usually is no great problem, inasmuch as the space occupied by the relevant categories ordinarily is obtained during the coding process. This article suggests ways in which the content analyst may reduce the size and drudgery of the news-hole task."—*E. P. Hollander.*

1172. MacLean, Malcolm S., Jr., & Crane, Edgar. (Michigan State U.) **Program preferences: Their implications for the educational broadcaster.** *Audiovis. Commun. Rev.*, 1961, 9(2), 85-98.—Samples of adults watched and evaluated "a wide variety of National Educational Television programs. Program content evaluations were correlated and factor-analyzed." The results suggested that 5 types of content held appeal: arts, public affairs, self-improvement, science, and tradition.—*E. L. Borrowman.*

1173. McNelly, John Taylor. (Michigan State U.) **Meaning intensity as related to readership of foreign news.** *Dissert. Abstr.*, 1961, 22(1), 347-348.—*Abstract.*

1174. Parsons, Talcott, & White, Winston. (Harvard U.) **Commentary I: The mass media and the structure of American society.** *J. soc. Issues*, 1960, 16(3), 67-77.—Structural changes have been occurring in the field of communications that are analytically similar to changes in the economic and political systems. Accessibility to cultural content is being extended to ever-widening groups. The media of communication are being more and more differentiated and specialized. The increase of functional capacity seems to be resulting in a qualitative upgrading of offerings.—*E. Y. Beeman.*

1175. Pearlin, Leonard I. (National Inst. Mental Health) **Social and personal stress and escape television viewing.** *Publ. Opin. Quart.*, 1959, 23(2), 255-259.—From interviews conducted with 736 television owners in a southern industrial city, a relationship was found between stressful experience, e.g., "aspirations frustrated," "guardedness," and viewing television for a reported means of escape. "It could be questioned whether escape viewing is perhaps more dysfunctional than functional. The very term escape suggests that one does not face squarely his difficulties. . . . It is worthwhile to entertain the possibility, though, that the mass media, while they might have long-run dysfunctions, provide a day-to-day 'safety valve' function by diverting their audiences from an awareness of the stresses under which they might live."—*E. P. Hollander.*

1176. Pool, Ithiel de Sola, & Shulman, Irwin. (Massachusetts Inst. Technology) *Newsmen's fantasies, audiences, and newswriting. Publ. Opin. Quart.*, 1959, 23(2), 145-158.—An interview study revealed that the journalist is influenced in what he writes by "the affective relationship that he conceived to exist between himself and his imaginary interlocutors . . . who may also be described as reference persons." In a subsequent experiment, 132 journalism students were given 1 of 4 sets of facts to write a story, and then completed a questionnaire to elicit imagery. 3 propositions were confirmed: (a) "good news" gave images of supportive persons, "bad news" of critics; (b) images congruent with kind of news were associated with accurate reporting; and (c) "good news" was more accurately reported than "bad."—E. P. Hollander.

1177. Ruesch, Jurgen. (U. California School Medicine, San Francisco) *Human communication and the psychiatrist. Amer. J. Psychiat.*, 1962, 118(10), 881-888.—The social and psychological changes that mass communication has wrought are first discussed, after which the role of communication in mental disease is presented.—N. H. Pronko.

ESTHETICS

1178. Cohen, Joel E. (Harvard U.) *Information theory and music. Behav. Sci.*, 1962, 7(2), 137-163.—This paper explicates some of the assumptions made in previous applications of information theory to music, surveys the results obtained on the basis of these assumptions, and criticizes these results and assumptions in order to indicate some necessary modifications and possible new areas of research. (64 ref.)—J. Arbib.

1179. Ekman, G., & Künnapas, T. *Measurement of aesthetic value by "direct" and "indirect" methods. Scand. J. Psychol.*, 1962, 3(1), 33-39.—The main features of "direct" and "indirect" methods for psychophysical measurement are briefly reviewed. An experiment is described in which the esthetic value of 18 specimens of handwriting was measured by the direct method of ratio estimation and the indirect method of pair comparisons on the assumption of Thurstone's Case V. The scale constructed by the indirect method was a theoretically expected logarithmic function of the ratio scale obtained by the direct method. If the ratio scale is accepted as a criterion, the results show that a true interval scale may be constructed by the indirect method in this experiment, provided that the assumption of constant variability is replaced by an assumption of proportional variability.—*Journal abstract.*

1180. Fransworth, P. R. *Musicality and abnormality. Confin. psychiat., Basel*, 1961, 4(3/4), 158-164.—A review of the research on the personality characteristics of musicians refutes the popular notion that artistic activity is associated with abnormality. The occasional judgment of artists' femininity is linked with the particular characteristics of American social sex role norms.—E. W. Eng.

1181. Guillot, Marcel. *Sur certaines possibilités psychophysiologiques et physiques d'une technique nouvelle de division des couleurs en peinture. [A new technique of color classification in painting.] J. Psychol. norm. pathol.*, 1961, 58(1), 11-32.—A discussion of the laws of pigment mixtures, light mixtures, and simultaneous contrast, with special emphasis

on the case of mixtures of Prussian blue and yellow ochre.—M. L. Simmel.

1182. Hungerland, Helmut. (Ed.) (Piedmont, Calif.) *Selective current bibliography for aesthetics and related fields: January 1, 1961-December 31, 1961. J. Aesthet. art Crit.*, 1962, 20, 475-491.—Includes a section on psychology.—P. R. Farnsworth.

1183. Meyer, Max F. *Helmholtz's aversion to tempered tuning experimentally shown to be a neurological problem. J. Acoust. Soc. Amer.*, 1962, 34, 127-128.—"Experiments show that the brain of people of ordinary musical endowment, when unsophisticated, enables them to esthetically appreciate melodies that are even more mistuned than the equally tempered scale."—A. M. Small, Jr.

1184. Moulin, Raymonde. *Le marchand de tableaux. [The art dealer] J. Psychol. norm. pathol.*, 1961, 58(3), 309-330.—A study of the cultural role of the art dealer, his relationship with living artists, his motivation underlying the choice of occupation, etc., based on personal interviews with 60 art dealers in Paris.—M. L. Simmel.

PERSONALITY & ABILITIES

1185. Dreger, Ralph Mason. (Jacksonville U.) *Fundamentals of personality: A functional psychology of personality. Philadelphia, Pa.: Lippincott*, 1962. xi, 388 p. \$6.95.—Social, clinical, and experimental approaches to "all major and most minor theories" are brought to bear on the normal adult personality. A concise, systematic treatment of the entire area is offered, with a brief appendix entitled "Dimensions and Factor Analysis." (43-p. bibliogr.)—R. Tyson.

1186. Flyer, Eli S., & Carp, Frances M. (Lackland AFB, Tex.) *The Picture Test: Rationale and one validation of the method. J. appl. Psychol.*, 1962, 46, 226-227.—A procedure has been designed that capitalizes on halo variance in ratings. To test the hypothesis of affective transfer from picture material to response categories, over 300 Ss were tested with one format of the Picture Test, obtaining, indirectly, their attitudes towards 8 religious groupings. Objective scoring of responses to the religious categories was accomplished, and Ss were grouped by their stated religious affiliation. Distributions of responses to the religious categories were consistent and supportive of the test's rationale—that affective transfer from picture material to response categories can occur with the method, and that responses can be meaningfully related to known group characteristics.—*Journal abstract.*

1187. Gaito, J. (Kansas State U.) *Forced and free Q sorts. Psychol. Rep.*, 1962, 10(1), 251-254.—"Statistical and non-statistical aspects of Q sorting are considered. Severe defects appear present for various analysis tests of significance when forced sorting is involved; moderate distortion, when free sort is used. Forced sort procedures may also destroy the subject matter of interest by affecting Ss' spontaneity, force moderation in attitude, affect card counting, and adversely influence S's motivation."—B. J. House.

1188. Sarason, Irwin G. (Ed.) *Contemporary research in personality. Princeton, N. J.: Van*

Nostrand, 1962. xii, 411 p.—A collection of 30 readings in personality research. The articles, by 65 authors, are divided in 9 sections: "Paper and Pencil Measures of Personality"; "Personality Measures Based on Subject's Fantasy"; "Personality Assessment"; "Personality and Development"; "Social, Cultural, and Personality Measures"; "Perception, the Self, and Personality"; "Learning, Stress, and Performance"; "Deviant Behavior and its Treatment"; and "The Case Study."—*E. L. Borrowman.*

1189. **Vernon, Philip E.** *The Measurement of abilities.* (2nd ed.) New York: Philosophical Library, 1961. xii, 276 p. \$7.50.—In this revision of a book originally published in 1939, the 1st 8 chapters are devoted to a presentation of elementary statistics as applied to tests and measurements. The rest of the book discusses new-type (objective) tests, essay examinations, test construction, and hints to testers. It contains a comprehensive list of published mental tests available in Great Britain together with CA or MA range, time, publisher, and price. This list is divided into attainment, achievement, and educational tests, individual intelligence tests, group intelligence tests, aptitude and special ability tests, and personality tests and assessments. Although projective techniques are included here, the Rorschach is noticeably missing.—*R. E. Perl.*

NEW TESTS & TEST CONSTRUCTION

1190. **Angoff, William H.** (Educational Testing Service) *Scales with nonmeaningful origins and units of measurement.* *Educ. psychol. Measmt.*, 1962, 22(1), 27-34.—The reasons usually given for preferring derived score scales for standardized tests include: (a) convenience in handling test score data, (b) comparability in different regions of the scale, (c) comparability of different forms, and (d) incorporating normative meaning. The author does not consider (d) essential because changes occur in score distributions with the passage of time. These changes are illustrated with the Army Alpha and the SAT of the College Board Program.—*W. Coleman.*

1191. **Bricklin, Barry; Piotrowski, Zygmunt A., & Wagner, Edwin E.** (Jefferson Medical Coll., Philadelphia) *The hand test.* Springfield, Ill.: Charles C Thomas, 1962. x, 100 p. \$5.00.—"This test consists of pictures of human hands in various ambiguous poses. The S is asked to tell what each hand may be doing. Administration and scoring require only about 12 minutes. Described are the results obtained from administration of the test in a wide variety of Ss: prison inmates, paroled recidivist and nonrecidivist offenders, acting-out psychiatric patients, non-acting-out psychiatric patients, passive indigents, schizophrenics, psychoneurotics, cases suffering intracranial lesions, epileptics, normals, children with reading problems, and children's control group. A large section is devoted to use of the test in daily clinical practice including diagnostic hints and procedures pertaining to use of the test with the individual case." The test was particularly devised for measuring aggressive acting out tendencies versus tendencies associated with social cooperation. To test the validity of the acting out score, the method of "known groups" was used.—*N. De Palma.*

1192. **Crites, John O., Bechtoldt, Harold P., Goodstein, Leonard D., & Heilbrun, Alfred B., Jr.**

(U. Iowa) *A factor analysis of the California Psychological Inventory.* *J. appl. Psychol.*, 1961, 45(6), 408-414.—Using test scores from 372 Ss, various statistical analyses indicated that a reduced set of 6 scales accounts for about $\frac{2}{3}$ of the total variance in the CPI. "... the reference scales provide more concise and less ambiguous definitions of the variables assessed by the CPI and have considerable promise as measures of the normal personality."—*J. W. Russell.*

1193. **Curtis, H. A., & Kropp, R. P.** (Florida State U.) *Standard and visual administrations of the Concept Mastery Test.* *Audiovis. Commun. Rev.*, 1962, 10(1), 38-42.—Comparisons of the test administered conventionally and by television under various speeded conditions indicate that the projected test "can be speeded greatly without appreciably altering test reliability and validity." Separate norms would be required.—*R. E. Schultz.*

1194. **Ebel, Robert L.** (Educational Testing Service) *Content standard test scores.* *Educ. psychol. Measmt.*, 1962, 22(1), 15-25.—A content standard test score is "a number that indicates the per cent of a systematic sample from a defined domain of tasks which an individual has performed successfully." Although normative standard scores are currently the most popular, to be meaningful test scores they must be related to test content as well as to the scores of other examinees. 2 ways of securing test scores having content meaning are described: (a) use of "scale books" of selected items, and (b) build "the meaning into the test, and hence into the test score, by systematic, explicitly specified processes of test construction." Examples of the use of both methods are provided.—*W. Coleman.*

1195. **Flanagan, John C.** (American Inst. Research) *Discussion.* *Educ. psychol. Measmt.*, 1962, 22(1), 35-39.—With the exception of the requirement that the items in a test form a Guttman Scale, Flanagan agrees with Gardner's position. He does not agree with Angoff though he respects his points as deserving serious consideration. In support of Ebel's "content standard test score," Flanagan cites Robert Seashore's Vocabulary Test, some of his prior recommendations, and work done in Project TALENT to provide for interpretation of scores.—*W. Coleman.*

1196. **Gardner, Eric F.** (Syracuse U.) *Normative standard scores.* *Educ. psychol. Measmt.*, 1962, 22(1), 7-14.—5 desirable properties of test items were discussed: (a) they constitute a representative sample of the domain tested, (b) they form a Guttman Scale, (c) they are arranged along a continuum of the variable under consideration in such a way that the raw scores constitute an interval scale, (d) they are of such a nature that a zero score on the test represents a zero amount of the ability being tested; and (e) they provide a scale unit which is meaningful. The sampling of examinees was also considered. Norms based on a variety of different groups, with the groups well-defined, were recommended. Different types of norms such as grade scores, percentile scores, and standard scores were all said to have their place.—*W. Coleman.*

1197. **Katzell, Raymond A., & Katzell, Mildred E.** (New York U.) *Development and application of structured tests of personality.* *Rev. educ. Res.*,

1962, 32(1), 51-63.—Several hundred books, monographs, and articles have been published during the past 3 years describing the development, application, validity, reliability, and norms of various structured measures of personality. This review was organized according to the particular test studied: Minnesota Multiphasic Personality Inventory, Edwards Personal Preference Schedule, anxiety scales, other personality inventories, and interest and attitude inventories. A brief report on new tests, response sets and distortion, and trends and needs in the field followed. (70 ref.)—*F. Goldsmith.*

1198. Loomba, Ram Murti. (Lucknow, India) **A new type of sentence completion technique and its use in the investigation of a person's self-concept.** *Indian J. Psychol.*, 1961, 36(3), 133-148.—A form of sentence-completion test is described which begins each sentence with a simple, first person pronoun; some of the pronouns being repeated for later sentences. The rationale and advantages of this technique are given, together with results from a preliminary try-out.—*J. T. Cowles.*

1199. Muthayya, B. C. (Sri Venkateswara U. Tirupathi) **The Madras Picture-Frustration Test (MP-F) and its development.** *MANAS, Delhi*, 1961, 8, 29-35.—The test, meant for the 13+–17+ age group, consists of 15 cartoon-like drawings showing everyday frustrating situations. Interrater reliability ranges from 42% to 89%. Matrix reliability (stability) coefficients of the scoring factors range from 36% to 70%. Identity of the responses of the test-retest protocols showed an agreement ranging from 50% to 75%. Tentative validity has been established by pre- and postexperimental frustration comparison, trend analysis, and comparison of delinquent and normal groups.—*U. Pareek.*

1200. Sen, Myra. **A new method of scoring of Haufmann-Kasanin Test.** *MANAS, Delhi*, 1961, 8, 21-27.—New elements introduced in administration and scoring of the test are time limit (25 minutes) and quantitative scoring. Credits ranging from 0 to 5 are given to different degrees of rigidity. Fluidity has been treated from 2 angles: incomplete attempt and arbitrary attempt. "The scores of these two varieties are found from the ratio of each of these two attempts to the total number of attempts."—*U. Pareek.*

1201. Sinha, Durganand. (Indian Inst. Technology, Kharagpur) **Development of two anxiety scales.** *MANAS, Delhi*, 1961, 8, 1-10.—These scales are being developed on a sample of Indian college students. The W-A Self-Analysis Form has 140 items of the "yes-no" type indicating anxiety situations and reactions. The scale has high correlation with the Taylor MA scale.—*U. Pareek.*

TEST STANDARDIZATION & EVALUATION

1202. Field, J. G. **An interpersonal validation of the MPI.** *Acta psychol., Amsterdam*, 1961, 18 (5), 351-353.—Judges selected their own personality doubles—accurately, according to the Maudsley Personality Inventory Neuroticism scale; insignificantly, according to the Extraversion scale in which the best judges were not better than others.—*G. Rubin-Rabson.*

1203. Guertin, Wilson H., Rabin, Albert I., Frank, George H., & Ladd, Clayton E. (U.

Florida) **Research with the Wechsler Intelligence Scales for Adults: 1955-60.** *Psychol. Bull.*, 1962, 59(1), 1-26.—The WAIS, as a measure of intelligence, is a marked improvement over its predecessor. Variables such as sex, age, and numerous environmental factors have been shown to affect scores. As a diagnostic aid, the WAIS remains as questionable as the earlier forms. Research in the latter area has been generally inadequate, a major problem being the lack of an adequate theoretical framework.—*W. J. Meyer.*

1204. Jordan, T. E. (Saint Louis U.) **Normative data on the progressive matrices (1938).** *Psychol. Rep.*, 1962, 10(1), 122.—Percentiles and raw scores on the Progressive Matrices (1938) intelligence scale are presented for a random sample ($N=365$) of an entering freshman class.—*B. J. House.*

1205. Morán, Roberto E. (U. Puerto Rico) **Observations and recommendations on the Puerto Rican version of the Wechsler Intelligence Scale for Children.** *Pedagogia, Rio Piedras*, 1962, 10, 89-98.—The WISC was translated and adapted to Puerto Rican Spanish, and norms were established from the results of a representative sample of Puerto Rican school children. The mean Puerto Rican IQ was 88, SD 22, as compared with the mean of 100, SD 15, on the original version. It had been suggested that a Puerto Rican child with a WISC IQ of 88 would be comparable to an American child with an IQ of 100, and would be considered of average intelligence. The dangers of such an assumption are pointed out, and it is suggested that Puerto Rican WISC IQs be converted to their American equivalents by using the formula $X = M_2 - \sigma_2(M_1 - Y/\sigma_1)$. An explanation of this formula and a conversion table of Puerto Rican IQs to American ones are presented.—*R. E. Morán.*

1206. Muthayya, B. C. **An experimental validation of the Madras Picture-Frustration Study.** *Psychol. Stud., Mysore*, 1962, 7, 10-15.—The test was validated with experimentally produced frustration. No significant differences were found in the frustration reactions between pre- and postexperimental frustration testings.—*U. Pareek.*

1207. O'Connell, Walter E. (VA Hosp., Waco, Tex.) **Item analysis of the WHAT test.** *J. soc. Psychol.*, 1962, 56, 271-276.—This paper reports an analysis of the Wit and Humor Appreciation Test (WHAT). The test is comprised of 30 joke items—10 each following the Freudian paradigms of humor, hostile wit, and nonsense wit. In an earlier study by this investigator, a significant sex difference was discovered with college undergraduates in their preferences for hostile wit and nonsense wit. Women preferred nonsense wit while men favored hostile wit. An item analysis between the sexes for each joke was conducted in an attempt to find other dimensions of jests more specific than the gross categories of humor, hostile wit, and nonsense wit. The 10 items involving hostile wit were examined for sex differences in terms of the subtlety and object of the hostility. Nonsense jokes were classified into puns and retorts, with the assumption that females would prefer the former while men would appreciate the latter. Results of the chi square tests on 330 males and females confirmed the view that within the various gross categories, sex differences in appreciation de-

pend to a large extent upon the amount of hostility expressed in the jest.—*Author abstract.*

1208. **Riddell, S. A.** (Banstead Hosp., Sutton, Surrey) **The performance of elderly psychiatric patients on equivalent forms of tests of memory and learning.** *Brit. J. soc. clin. Psychol.*, 1962, 1(1), 70-71.—2 parallel forms of the Benton Revised Visual Retention Test and of the Inglis Auditory Recall Test (see 34: 4037) were given at intervals of one week between forms to small groups (15 or less) of elderly females. Doubt was thrown upon the equivalence of the 2 forms.—*C. M. Franks.*

INTELLIGENCE & CREATIVITY

1209. **Andrews, Michael F. (Ed.)** (Syracuse U.) **Creativity and psychological health.** Syracuse, N. Y.: Syracuse Univer. Press, 1961. x, 148 p. \$2.25.—Symposia proceedings from the 1960-61 Conferences on Creative Arts Education held at Syracuse University. Contributors included a psychologist, a philosopher, a sociologist, a medical doctor, a textbook publisher, an educational researcher, an art educator, and a specialist in the field of exceptional education. Contributors conceive creativity to be a "positive self-integrating force . . . a process of self-actualization, an expression of being." They present their interpretations of the relationships between creativity and psychological health.—*C. H. Miley.*

1210. **Bradway, Katherine P., & Thompson, Clare W.** (Stanford U.) **Intelligence at adulthood: A twenty-five year follow-up.** *J. educ. Psychol.*, 1962, 53, 1-14.—This paper reports findings from 111 Ss tested with the Stanford-Binet (S-B) at preschool and adolescence who were administered the S-B and WAIS at adulthood. Correlations of preschool IQs with adult S-B and full WAIS IQs are .59 and .64; of adolescent IQs with adult IQs, .85 and .80. Mean S-B IQ increase from adolescence to adulthood is 11 points, indicating that mental growth continues beyond 16 years. Males show more IQ gain after adolescence than do females ($p < .01$). Girls with high IQs increase least. Analysis of increases in percent passing S-B items shows more growth after adolescence in abstract reasoning and vocabulary than in rote memory and practical reasoning. Preschool verbal and memory items are better predictors than nonverbal items of both verbal and performance adult IQs. Pattern of individual differences in relative amounts of these abilities shows some stability over 25 years.—*Journal abstract.*

1211. **Buel, William D., & Bachner, Virginia M.** (Science Research Associates, Chicago) **The assessment of creativity in a research setting.** *J. appl. Psychol.*, 1961, 45(6), 353-358.—Psychometric instruments of varying nature were used to evaluate research personnel in a major cereal and feed company research center. 3 criteria of creativity were collected against which the psychometric instrument validities were calculated. Certain intelligence, interest, and personality variables and the forced-choice instrument were demonstrated to be valid, singly and in combination, for differentiating between relatively creative and noncreative research workers.—*Author abstract.*

1212. **Canisia, M.** (Loyola U.) **Mathematical ability as related to reasoning and use of symbols.**

Educ. psychol. Measmt., 1962, 22(1), 105-127.—A battery of 36 tests was assembled, 10 of which were standardized tests. The tests were completed by 150 11th-grade girls in a private secondary school. The 12 centroid factors extracted were discussed and illustrated. 4 2nd-order factors were extracted by the multiple-group method. "The finding of this study suggest that mathematical thought processes appear to be mainly processes of education, organization, and manipulation of relations. Mathematical thinking seems to be characterized by a fluency and flexibility of thought-material under restricting conditions such as are often imposed by the assumptions, postulates, and definitions of a mathematical problem. The number factor appears to be quite unrelated to the other factors in terms of which mathematical ability was described in this study."—*W. Coleman.*

1213. **Cohen, Irwin H.** (Michigan State U.) **Adaptive regression, dogmatism, and creativity.** *Dissert. Abstr.*, 1961, 21(11), 3522-3523.—*Abstract.*

1214. **Goodenough, D. R., & Karp, S. A.** (State U. New York Downstate Medical Center) **Field dependence and intellectual functioning.** *J. abnorm. soc. Psychol.*, 1961, 63(2), 241-246.—"The present study was designed to test the hypotheses that some intellectual and perceptual tasks have a common requirement for overcoming embedded contexts, and that relationships obtained between measures of field dependence and standard tests of intelligence are based on this common factor. Two factor analyses were conducted on matrices of correlations between cognitive tests, including tests of field dependence and the subtests of the WISC. The results tend to support both hypotheses."—*G. Frank.*

1215. **Gordon, William J. J.** **Synectics: The development of creative capacity.** New York: Harper, 1961. xi, 180 p. \$4.50.—"Synectics theory applies to the integration of diverse individuals into a problem-solving group. It is an operational theory for the conscious use of the pre-conscious psychological mechanisms present in man's creative activity." Case histories illustrating the use of Synectics' operational mechanisms are provided, together with detailed procedures for organizing and operating Synectics groups in industrial contexts. The author's interest in the nature of creative activity culminates in analyses of metaphor and play and their roles in the creative process. (15-p. bibliogr.)—*W. R. Reitman.*

1216. **Isaacs, Ann F.** (Gifted Child Quarterly, Cincinnati, O.) **Sources of motivation in creatively gifted adults.** *Gifted Child Quart.*, 1961, 5, 63-64.—Parents, teachers, and classmates were of greatest influence to the group of artists, authors, and composers interviewed. Insight came at different ages: for the artists between 5 and 22, for the musicians between 4 and 23, and for the writers between 12 and 40. The war, school papers, and merit awards were forces which shaped their destinies. Some obstacles met were time limitations for creativity, insufficient pay, and rejection by the public.—*N. M. Chansky.*

1217. **Ripple, R. E., & May, F. B.** (Cornell U.) **Caution in comparing creativity and IQ.** *Psychol. Rep.*, 1962, 10(1), 229-230.—"By correlating Otis IQs and scores on creative-thinking tests by members of several seventh grade groups, homogeneous or

heterogeneous with respect to IQ, it was demonstrated that the low correlation of these measures reported by other investigators may well be due in part to the restricted IQ ranges in their samples."—*B. J. House.*

1218. Taylor, Calvin W., & Holland, John L. (U. Utah) Development and application of tests of creativity. *Rev. educ. Res.*, 1962, 32(1), 91-102.—Until a few years ago, the complexities of creativity discouraged research studies in this area. Recently, increased research activities in creativity, in which the Ss have most often been scientists, have been exploratory in nature. Many of the researchers have focused on understanding the nature of creativity and of the creative person, rather than hurriedly trying to build a creativity test to market for widespread use. Much of the research reported was directed toward finding concomitant characteristics of creativity that would eventually permit building tests of creativity potential. (44 ref.)—*F. Goldsmith.*

1219. Wallen, Norman E. (U. Utah) Development and application of tests of general mental ability. *Rev. educ. Res.*, 1962, 32(1), 15-24.—During the period reviewed, the largest number of studies pertained to predictive validity and analysis of test intercorrelations. Of the persistent issues, only a few associated with measures of general ability appeared to be reaching the stage where a fairly definite answer would be possible. From a practical standpoint, the most important occurrence during the review was probably the revision of the Stanford-Binet Scale, described by Terman and Merrill (1960). The manual is somewhat lacking in clarity. Wallen would like to see the balance of research shift from interest correlation and simple predictive validity to refinement of tests based on correlations with more useful outside criteria. (62 ref.)—*F. Goldsmith.*

PERSONALITY MEASUREMENT

1220. Baer, Daniel Joseph. (Fordham U.) A factor analytic study of perceptual and personality rigidity tests. *Dissert. Abstr.*, 1961, 21(12), 3841-3842.—*Abstract.*

1221. Cattell, R. B., Knapp, R. R., & Scheier, I. H. (U. Illinois) Second-order personality factor structure in the objective test realm. *J. consult. Psychol.*, 1961, 25(4), 345-352.—7 2nd-order factors (factors based on correlations between 1st-order factors) independently obtained from 5 separate studies are indexed and named. (a) Tied Socialization; (b) Expansive Ego; (c) Temperamental Arousal; (d) Educated Self-Consciousness; (e) History of Inhibiting, Restraining Environment; (f) Narcissistic Development; (g) Tension to Achieve. Evidence of patterns, their matching, and some criterion associations are presented.—*E. R. Oetting.*

1222. Cerbus, George. (Purdue U.) Personality correlates of picture preferences. *Dissert. Abstr.*, 1961, 22(1), 319-320.—*Abstract.*

1223. Cooper, Allan, & Cowen, Emory L. (U. Rochester) The social desirability of trait descriptive terms: A study of feeling reactions to adjective descriptions. *J. soc. Psychol.*, 1962, 56, 207-215.—The present research was concerned with the reactions of Ss, under a "feeling" frame of reference, to a series of 209 trait descriptive adjectives. The adjectives were identical to those employed in 2 prior

investigations using social and personal frames of reference to establish item social-desirability. 46 college students, comparable in background and education to the 2 earlier samples, served as Ss in the current study. Consistent with the previous findings, female Ss under the feeling set used more extreme ratings than males. The cross set intercorrelations were all in the high 90s, indicating a marked consistency in the relative ordering of the concepts. The feeling set was found to produce more extreme mean ratings than did either the social or the personal set. This finding was interpreted in terms of a hypothesis that the feeling set is more ego-involving and response-mobilizing than the other sets. Also, the greater variability of the Ss under the feeling set suggested that it forces a higher proportion of Ss to place positive or negative values on the trait descriptive adjectives.—*Author abstract.*

1224. Decker, Robert Jay. (Temple U.) The psychogrammatical Homograph Test: An investigation of certain aspects of grammatical usage in relation to certain aspects of personality. *Dissert. Abstr.*, 1961, 22(1), 320-321.—*Abstract.*

1225. Eagle, Morris. (New York U.) Personality correlates of sensitivity to subliminal stimulation. *J. nerv. ment. Dis.*, 1962, 134(1), 1-17.—Individual differences in subliminal sensitivity and their personality correlates were studied as part of a broader program designed to throw light on the processes involved in the effects of subliminal stimuli on cognition. Results showed that Ss sensitive to subliminal stimuli were different in consistent ways from insensitive Ss.—*N. H. Pronko.*

1226. Edwards, Allen L., Diers, Carol J., & Walker, Jerald N. (U. Washington) Response sets and factor loadings on sixty-one personality scales. *J. appl. Psychol.*, 1962, 46, 220-225.—Intercorrelations between 58 MMPI and 3 other personality scales, based upon the scores of 151 students, were factor analyzed and the factors rotated orthogonally. Loadings of the scales on the 1st factor correlated .90 with the proportion of items keyed for socially desirable responses and .98 with the zero-order correlations of the scales with the Social Desirability (SD) scale. The proportion of keyed True items correlated .82 with the loadings of the scales on the 2nd factor. The Lie and 3 other scales similar to the Lie scale had substantial loadings on the 3rd factor. The 1st factor is interpreted as reflecting the tendency to acquiesce, and the 3rd as reflecting the tendency to falsify answers.—*Journal abstract.*

1227. Elliott, Rogers. (U. Illinois) Interrelationships among measures of field dependence ability, and personality traits. *Dissert. Abstr.*, 1961, 21(10), 3163.—*Abstract.*

1228. Eson, Morris E., & Greenfield, Norman. (State U. New York Coll. Teachers, Albany) Life space: Its content and temporal dimensions. *J. genet. Psychol.*, 1962, 100, 113-128.—140 Ss, divided into 7 age-sex groups, completed an interview form which required each S to list his thoughts and conversations of the past week or 2; rate each item on a 3-point scale as to its importance; characterize each item as to feeling tone; and label each item either distant past, near past, near future, or distant future. All 7 groups were consistent in placing great emphasis on the future and on pleasant feeling tone in labeling the items. Older males (60-69 yr.) could

not be differentiated with respect to a greater emphasis on the past, or a less hopeful expectancy of the future. The Ss gave little attention to broad aspects of community life and to problems of morals, ethics, and religion. Implications for the use of the interview form as a diagnostic tool were discussed.—*Author abstract.*

1229. Foulds, G. A. Personality traits and neurotic symptoms and signs. *Brit. J. med. Psychol.*, 1961, 34, 263-270.—"Within any agreed frame of reference personality variables must be regarded as universal. A personality trait is taken to be a relatively consistent and enduring position in respect to a personality variable. Symptoms and signs of mental illness are distinguishable from traits in that they are neither universal nor necessarily enduring." Clinicians may often fail to discriminate among these concepts. Certain tests relate to symptoms and signs, while others relate to traits. Data are reported.—*C. L. Winder.*

1230. Glatzer, A. N., & Reece, M. M. Tactility and sexual symbolism. *Percept. mot. Skills*, 1962, 14, 302.—A spherical object and a straight object, both of rubber, were duplicated in wood. 30 students felt, but did not see them, and rated them on Reece's masculinity-femininity semantic differential. Analysis of variance showed the importance of the hard-soft dimension for the concepts of masculinity and femininity.—*W. H. Guertin.*

1231. Lichtenstein, E., Quinn, R., & Hover, G. L. (U. Michigan) Dogmatism and acquiescent response set. *J. abnorm. soc. Psychol.*, 1961, 63(3), 636-638.—"This study was designed to test the hypothesis that Rokeach's Dogmatism Scale [1960], structurally identical to the F scale, is similarly vulnerable to acquiescent response bias." Administration of acquiescent response scales, the F Scale, and the Dogmatism scale to a population of adult neurotics revealed a high intercorrelation, which supports the hypothesis.—*G. Frank.*

1232. Littig, L. W. (U. Buffalo) An empirical relationship between n affiliation and the F scale. *Psychol. Rep.*, 1962, 10(1), 182.—An intermediate n affiliation group scored significantly higher on the F scale than combined high and low groups, indicating a curvilinear relationship between the 2 measures.—*B. J. House.*

1233. Lynn, R. (U. Exeter, England) Introversion-extraversion differences in judgments of time. *J. abnorm. soc. Psychol.*, 1961, 63(2), 457-458.—The differential capacity of introverts (I) and extroverts (E) to make judgments about times was assessed by using college students distinguished on the basis of the Maudsley Personality Inventory (Eysenck, 1959). To some extent, previous findings regarding the differences of Is and Es to make time estimates were reproduced. Evidence was also presented supporting Eysenck's (1957) hypothesis that Es manifest a greater degree of reactive inhibition and dissipate it more slowly than Is. The major contribution was the use of a unique method of assessing judgments of time (Llewellyn-Thomas, 1959).—*G. Frank.*

1234. McClenahan, Mary Louise Phelps. (State U. Iowa) The relationship of test-defined needs to illuminance matches of need-related pictures. *Dissert. Abstr.*, 1961, 21(12), 3862-3863.—*Abstract.*

1235. Miller, Sutherland, Jr. (Columbia U.) The relationship of personality to occupation, setting and function. *Dissert. Abstr.*, 1961, 21(11), 3518.—*Abstract.*

1236. Monro, A. B. (Long Grove Hosp., Epsom, Surrey, England) The self-referent attitudes of neurotic and inadequate personalities. *J. ment. Sci.*, 1962, 108, 37-46.—For a sample of 150 non-psychotic, hospitalized patients, of whom 125 were neurotics and 25 inadequate personalities, a list of 32 traits referring to attitudes towards one's self was constructed and the patients rated on it; inter-correlations resulted in 22 correlation clusters, each trait correlating with every other trait in the cluster to the extent of .5. These then formed 2 nuclei, one of which seemed to be uncritical acceptance of undervaluation of the self; the other appeared to be rejection of undervaluation.—*W. L. Wilkins.*

1237. Muthayya, B. C. (Thirupathi, India) Relationship between level of aspiration, performance and future performance. *Psychol. Stud., Mysore*, 1961, 6(1), 41-46.—3 performance and 3 verbal tests were used with 252 adolescents for the experiment. A significant relationship was found between performance and aspiration. It was found that "the past performance determines the height of the succeeding aspiration level."—*U. Pareek.*

1238. Nicks, Delmer C., & Fleishman, Edwin A. (Yale U.) What do physical fitness tests measure? A review of factor analytic studies. *Educ. psychol. Measmt.*, 1962, 22(1), 77-95.—14 factors of physical proficiency are described as identified from previous research. Additional possible factors are also described. Physical proficiency is a multidimensional problem. Studies comparing American youth with youth of other countries have assessed only a small number of factors. Large scale studies are planned to clarify the structure of physical proficiency, to clarify some of the factor definitions, and to identify new factors. A battery of basic reference tests might be developed eventually, but for the present a battery of possible tests is described.—*W. Coleman.*

1239. Nooney, James B., & Polansky, Norman A. (Western Reserve U.) The influence of perceived similarity and personality on verbal accessibility. *Merrill-Palmer Quart.*, 1962, 8(1), 33-40.—Whether or not greater perceived similarity as measured by Fiedler's Assumed Similarities technique leads to more verbal accessibility depends on the personality of the S. In an experimental condition where similarity could be inferred, college Ss scoring high on the F Scale (Authoritarian) responded with less, rather than with more, indication of verbal accessibility. (16 ref.)—*E. L. Robinson.*

1240. Smith, G. J. W. Effects of incidental stimulation as related to differences in personality and experimental conditions. *Scand. J. Psychol.*, 1962, 3(1), 16-20.—2 series of experiments, where reactions to incidental stimulation as measured by means of the meta-contrast technique have been compared with more general personality characteristics, are reviewed in this paper in an attempt to reconcile apparently contradictory results due to differences in experimental set-up.—*Journal abstract.*

1241. Smith, William M., & Jones, Marshall B. (George Washington U.) Astronauts, Antarctic scientists, and personal autonomy. *Aerosp. Med.*,

1962, 33(2), 162-166.—A study of 26 astronauts and 57 Antarctic scientists compared with groups of naval aviation cadets and naval retrainees. All of the Ss took the Pensacola Z Scale questionnaire to measure personal autonomy. The astronauts and the scientists were more individualistic than the others. The strong positive correlation between the Z score and performance in the Antarctic was found among those men who have had previous polar experience. This suggests that the predictive value of the Pensacola Z Scale for Antarctic scientists and perhaps for astronauts may increase with the experience and level of the applicants.—*J. C. G. Loring.*

1242. Spreen, Otfried. The translation of personality scales and their adaptation for cross-cultural and clinical use. *Acta psychol., Amsterdam*, 1961, 18(5), 337-341.—Because of the changes necessary in objective tests to make them clinically useful in other languages, they cannot be used for cross-cultural comparisons. The procedure and rationale of test translations is illustrated by a new German anxiety scale based on 3 American scales by Taylor, Cattell, and Welsh. Similar work is in progress on the German version of the MMPI.—*G. Rubin-Rabson.*

1243. Wodder, Niels C., & Hall, William E. (Nebraska State Dept. Education, Lincoln) An analysis of peer ratings. *Personnel guid. J.*, 1962, 40(7), 606-609.—The study concerned structural stability of the personality. The primary purpose concerned the ability of peers who live together to rate each other the same after time lapses. Stability of personality as inferred from a measure of reputation was great over a period of 1 week and significant over a period of 1 and 2 years.—*S. Kavruck.*

1244. Wrightsman, Lawrence S., Jr. (George Peabody Coll. Teachers) Authoritarianism and self awareness. *J. soc. Psychol.*, 1962, 56, 179-185.—The California F Scale and a self-rating scale created for this study were given to 93 Ss. The latter scale consisted of graphic ratings of the 10 underlying ideological components of the authoritarian syndrome, as hypothesized by its authors. Ss highest on the F Scale rated themselves significantly higher on most dimensions and on total score than did the least authoritarian Ss. Both high and low authoritarians possessed some self-awareness about the extremity of their positions. This finding is in conflict with some previous research and theory.—*Author abstract.*

Inventories

1245. Azrin, N. H., Holz, W., & Goldiamond, I. (Anna State Hosp., Ill.) Response bias in questionnaire reports. *J. consult. Psychol.*, 1961, 25(4), 324-326.—Students responded to a questionnaire used previously with combat flyers in terms of what is expected by a commanding officer. Rank order for students and flyers is essentially the same, suggesting that results of previous study may be due to response bias.—*E. R. Oetting.*

1246. Bendig, A. W. (U. Pittsburgh) A factor analysis of personality scales including the Buss-Durkee Hostility Inventory. *J. gen. Psychol.*, 1962, 66, 179-183.—9 personality scales and a scale of verbal ability were administered to 251 college students, and 4 centroid factors were extracted from the intercorrelation matrix. The scales included 3 "markers" for the factor of Extraversion-Introversion (EI) taken from the MMPI and the Maudsley Personality

Inventory; 3 scales (including the Manifest Anxiety scale) defining the Emotionality (EM) factor; and measures of "attitudinal hostility" and "motor hostility" obtained by combining certain subscales in the Buss-Durkee Hostility Inventory. The original orthogonal factors were rotated to oblique simple structure using the analytic oblimax criterion. The rotated factors were readily identifiable as EI, EM, Hostility (H), and Verbal Ability (V). The EM and H factors appeared to be moderately and positively correlated. It was suggested that Factor H may be the mirror image of the 2nd-order factor unifying the Friendliness and Personal Relations scales of the Guilford Zimmerman Temperament Survey.—*Author Abstract.*

1247. Borgatta, Edgar F. (Cornell U.) The coincidence of subtests in four personality inventories. *J. soc. Psychol.*, 1962, 56, 227-244.—An analysis of 4 well known personality inventories that stress subtests with orthogonal content, indicates that 2 main clusters occur, one associated with a concept of extraversion and the other with emotional stability. Several additional minor clusters occurred, but in general the alignment of the subtests left much to be desired. The analysis suggested the importance of examining the generality of structures within inventories for males and females separately. The meaningfulness of 2nd-order factors of personality inventory subtests was questioned on the basis of subtest design objectives. Existence of 2nd-order factors among subtests indicated an inadequate criterion. The point was stressed that oblique solutions need not be utilized if items could be located to represent the orthogonal factors, even if the vast majority of items seemed to suggest an oblique solution.—*Author abstract.*

1248. Campbell, David Phillip. (U. Minnesota) Psychometric analysis of response patterns to interest inventory items. *Dissert. Abstr.*, 1961, 21(10), 3156-3157.—*Abstract.*

1249. Edwards, A. L. (U. Washington) Social desirability or acquiescence in the MMPI? A case study with the SD Scale. *J. abnorm. soc. Psychol.*, 1961, 63(2), 351-359.—In this, his Presidential Address to the Division of Evaluation and Measurement of the American Psychological Association, September 1960, the author reviews the research pertinent to the measurement of the dimensions of "social desirability" and "acquiescent response set." Results of new data derived from an analysis of responses to the MMPI were presented to indicate the validity of the explanation in terms of the dimension of social desirability.—*G. Frank.*

1250. Edwards, Allen L. (U. Washington) Social desirability and expected means on MMPI scales. *Educ. psychol. Measmt.*, 1962, 22(1), 71-76.—Based on data from earlier studies the average probability, P , of a socially desirable response, defined as a True response to an item with a socially desirable scale value or a False response to an item with a socially undesirable scale value, was estimated as .81. The average probability, $Q = 1 - P$, of a socially undesirable response was estimated as .19. . . . An equation was presented in which the values of P and Q were applied to the number of items keyed for socially desirable responses and the number of items keyed for socially undesirable responses in each of 43 MMPI scales to obtain predicted

means for the scales. The predicted means were found to correlate .93 with the observed means based upon a sample of 155 males."—*W. Coleman.*

1251. Evans, Gloria Carey. (Swarthmore Coll.) **The influence of "fake" personality evaluations on self description.** *J. Psychol.*, 1962, 53(2), 457-463.—68 undergraduates completed a personality inventory which included 150 adjectives to be answered on a 4-point scale according to the degree to which each adjective characterized the individual. $\frac{1}{2}$ of the Ss (experimental group) subsequently received identical evaluations supposedly based on the personality inventory. All Ss then completed a 2nd questionnaire, which included the same 150 adjectives, and response changes from the 1st to the 2nd admission were scored for each S. The experimental group modified its self-description significantly ($p < .001$) in the direction of the fake evaluations while the control group showed no such modification. Negative evaluations had as much effect on the revised descriptions as did the positive ones.—*Author abstract.*

1252. Eysenck, H. J. (U. London) **Response set, authoritarianism and personality questionnaires.** *Brit. J. soc. clin. Psychol.*, 1962, 1(1), 20-24.—10 measures, based upon data obtained by giving the Maudsley Personality Inventory, part of the MMPI, and the Jackson-Messick version of the F Scale to 137 neurotic Ss, were factor analyzed. As predicted, the personality tests yielded no evidence of response sets of "acquiescence" or "indecisiveness." It was suggested that "acquiescence" response set may be a tendency peculiar to questionnaires of social attitudes, personal opinions, etc.—*C. M. Franks.*

1253. Eysenck, S. B. G. **The validity of a personality questionnaire as determined by the method of nominated groups.** *Life Sci.*, 1962, No. 1, 13-18.—"A study is reported of the validity of the Maudsley Personality Inventory, using the method of nominated groups. Judges nominated persons of their acquaintance whose behavior showed them to be outstandingly high or low on either one or both of the dimensions of extraversion-introversion and stability-neuroticism. Questionnaire answers of these subjects on the Maudsley Personality Inventory, which purports to measure these two dimensions, were found to be related at very high levels of significance to the nominations they had received indicating considerable validity for the Inventory in question."—*C. T. Morgan.*

1254. Finney, Joseph C. (Hawaii Dept. Health, Honolulu) **The MMPI as a measure of character structure as revealed by factor analysis.** *J. consult. Psychol.*, 1961, 25(4), 327-336.—56 Minnesota Multiphasic Personality Inventory scales and 2 individual items are factor analyzed by centroid and rotation to oblique simple structure. Scale loadings and theoretical implication of the resultant factors are discussed. Response set factors prominent in centroid analysis disappear on rotation. K corrected scales show increased purity after rotation, suggesting greater validity of oblique simple rotation factors.—*E. R. Oetting.*

1255. Gauchet, F., & Lambert, R. **Étude factorielle de 3 questionnaires de personnalité: Questionnaires de Cattell, Guilford-Zimmerman et Berger.** [Factorial study of three personality questionnaires: The questionnaires of Cattell, Guilford-Zim-

merman, and Berger.] *Travail hum.*, 1961, 24(3-4), 249-272.—130 students (74 females and 56 males) filled out a questionnaire derived from those of Berger, Cattell, and Guilford-Zimmerman. Factor analysis was made of 3 major traits and their subtraits; (a) emotional stability; (b) cyclothymia, sociability, and activity; and (c) dominance, ascendancy, and polarity. Outside of specific factors, there appeared 4 major factors; emotional stability; activity outside the self; egocentric activity; and secondary behavior, including voluntary control, restraint, and submissiveness.—*R. W. Husband.*

1256. Gynther, Malcolm D., & Gertz, Boris. (South Carolina State Hosp.) **Personality characteristics of student nurses in South Carolina.** *J. soc. Psychol.*, 1962, 56, 277-284.—Edwards Personal Preference Schedule scores were obtained from 222 student nurses who were a representative sample of South Carolina student nurses. 2 raters independently selected the best and worst nurses in terms of technical competence, dependability, initiative, attitude toward patients and colleagues, and related factors. Both raters agreed on 44 "goods" and 43 "poors." Comparison of the results with normative data showed that the student nurses had weaker needs for exhibitionism, dominance, autonomy, and change and stronger needs for orderliness and endurance. The Ss also expressed less need for achievement and were more concerned with guilt feelings than other women their age. The good student nurses had a significantly greater need to be dominant and significantly less interest in orderliness than the poor student nurses. These results suggested that one reason these girls entered the field of nursing was to find security in a well-organized setting in which they did not have to make decisions.—*Author abstract.*

1257. Jackson, Jay M. (U. Kansas) **The stability of Guilford-Zimmerman personality measures.** *J. appl. Psychol.*, 1961, 45(6), 431-434.—In comparing performance on the Guilford-Zimmerman Temperament Survey of the same group of females over a period of time, it was found that the inventory measures "relatively persistent attributes of the persons tested." The N was 96 the 1st time and 49 the 2nd time. (19 ref.)—*J. W. Russell.*

1258. Karr, C. (Portland State Coll.) **Note on the Edwards Personal Preference Schedule and between-subjects variance.** *Psychol. Rep.*, 1962, 10(1), 55-58.—Use of scores on only one variable of a multivariable personality instrument may be unsound in the case of forced-choice inventories (such as EPPS) which produce variable scores about a constant mean and hence are ipsative. However, EPPS variable scores may be more unbiased than scores obtained from inventories with fluctuating means which create variance between Ss. Research is needed to determine the relevance of between Ss variance produced by free-choice instruments.—*B. J. House.*

1259. Krishnan, B. (Mysore U.) **Need for a validity scale in personality inventories.** *Psychol. Stud. Mysore*, 1961, 6(1), 50-54.—A validity scale of 16 statements was prepared to detect lying on a personality test. The scores on "V" scale were found to distribute according to normal probability curve. No sex differences were found. Limits on accepting of data are determined with the "V" scale.—*U. Pareek.*

1260. Lorr, Maurice, & O'Connor, James P. (Catholic U.) **Psychotic symptom patterns in a behavior inventory.** *Educ. psychol. Measmt.*, 1962, 22(1), 139-146.—The Psychotic Reaction Profile (PRP) was designed to measure 10 hypothesized reaction patterns. Observations and ratings were made of 500 male psychotic patients in 47 hospitals. "A multiple group factor analysis confirmed seven of the patterns postulated. The remaining three patterns were represented by an eighth more general factor of Thinking Disorganization."—W. Coleman.

1261. Messick, Samuel. (Educational Testing Service) **Response style and content measures from personality inventories.** *Educ. psychol. Measmt.*, 1962, 22(1), 41-56.—". . . factor analysis was applied to intercorrelations among content scales and stylistic measures as a potential means of separating distinct, but possibly correlated, dimensions of content and style." T/F items were scored separately for 10 relatively homogenous content scales and a measure of defensiveness. The 22 scores that were obtained yielded 3 major factors (about $\frac{2}{3}$ of the common variance) and 5 minor factors. The large factors seemed attributable to response style, but the smaller factors tended to be attributable to specific content dimensions.—W. Coleman.

1262. Phares, E. Jerry, & Adams, Calvin K. (Kansas State U.) **The construct validity of the Edwards PPS Heterosexuality scale.** *J. consult. Psychol.*, 1961, 25(4), 341-344.—High scoring males placed a higher aesthetic value on sexual photographs and may exhibit better retention of sexual material.—E. R. Oetting.

1263. Ray-Chowdhury, K. (Aligarh Muslim U., India) **Allport-Vernon Study of Values (1958 modification) in Indian situation.** *Indian psychol. Bull.*, 1959, 4(2), 67-74.—Score distributions, means, and SDs are presented for a 1958 form of the Allport-Vernon-Lindzey Study of Values, as modified by the author for English-speaking adults in India. Ss were 305 graduate students (of whom 26 were women) in various subject fields at Aligarh Muslim University. K-R reliability coefficients for the 5 value scales are also given, together with intercorrelations of the scales and correlations of these with other personality tests.—J. T. Cowles.

1264. Ray-Chowdhury, K. (Aligarh Muslim U., India) **Allport-Vernon Study of Values (old and new forms) and sex-difference in Indian situation.** *Indian psychol. Bull.*, 1959, 4(2), 52-57.—Summary data are presented for a 1958 form of the Allport-Vernon-Lindzey Study of Values, as modified by the author for English-speaking adults in India; comparative data for the same Ss on the unmodified form of the older Allport-Vernon inventory are also presented. The Ss were 65 baccalaureate students in education at Aligarh Muslim University, about $\frac{1}{2}$ of whom were women. A significant sex difference at the 1% level was found only for the Social scale of the modified form.—J. T. Cowles.

1265. Schutz, Richard E., & Baker, Robert L. (Arizona State U.) **A factor analysis of the Kuder Preference Record: Occupational, Form D.** *Educ. psychol. Measmt.*, 1962, 22(1), 97-104.—Based on a representative sample of 450 freshmen males at Arizona State University, a principal components analysis was performed of the r's for 42 scales of the

Kuder Preference Record. "The analysis yielded seven readily interpretable rotated factors: I. Interperson-Directive, II. Engineering-Physical Science, III. Business-Detail, IV. Business-Aesthetic, V. Verbal-Directive, VI. Outdoor, VII. Health Scientist. The implications of the findings for practical test usage are discussed."—W. Coleman.

1266. Zuckerman, M., & Eisen, B. (Indiana U. Medical Center) **Relationship of acquiescence response set to authoritarianism and dependency.** *Psychol. Rep.*, 1962, 10(1), 95-102.—In one study, with 33 college students, scores on an essay test, designed as an acquiescence-free measure of authoritarianism, correlated significantly with the usual F Scale and the Bass Social Acquiescence Scale, but not with Christie's reversed F scale. In a 2nd study, with 48 students, the Bass measure of acquiescence was significantly correlated with measures of Success-Autonomy in 3 of the 5 techniques measuring this dimension.—B. J. House.

Projective Methods

1267. Borelli, George Louis. (Ohio State U.) **A study of the meanings of Rorschach cards through use of the Semantic Differential technique.** *Dissert. Abstr.*, 1961, 21(10), 3161-3162—Abstract.

1268. Dodds, Josiah Boggs. (Cornell U.) **An experimental study of the determinants of affiliation imagery in Thematic Apperception stories.** *Dissert. Abstr.*, 1961, 21(12), 3842-3843.—Abstract.

1269. Marquis, John Neil. (U. Michigan) **Fantasy measures of aggressive behavior.** *Dissert. Abstr.*, 1961, 21(12), 3854-3855.—Abstract.

1270. Mathieu, Michel. **Le Test de l'Arbre en psycho-pathologie.** [The Tree Test in psychopathology.] Lyon, France: Imprimerie BOSC Freres, 1961, 83 p.—The Tree Test, as developed by Charles Koch of the Institute of Applied Psychology, Lucerne, is described as a projective test. The book contains chapters on the history of the Tree Test in clinical psychology, hypotheses and interpretations, application of factor analysis tables, etc. The Ss include normals, feeble-minded, delinquents, and surgical and psychiatric patients.—V. Sanua.

1271. Nickols, J. **A form referent for the Ancillary Projective Test (APT).** *Percept. mot. Skills*, 1962, 14, 216.—48 normals identified correspondences between 5 point splotches (Ancillary Projective Test) and 12 irregular forms used for reference.—W. H. Guertin.

1272. Pate, Kenton Donese. (U. Houston) **The Picture Arrangement Test as related to occupational choice and values.** *Dissert. Abstr.*, 1961, 21(12), 3856.—Abstract.

1273. Reisman, John M. (Rochester Child Guidance Clinic, N. Y.) **An interpretation of m.** *J. consult. Psychol.*, 1961, 25(4), 367.—An analysis of adolescents. Rorschach's contradicts Piotrowski's hypothesis, that types of movement in m responses are always different from M or FM.—E. R. Oetting.

1274. Ricciuti, Henry. (Cornell U.) **Development and application of projective techniques of personality.** *Rev. educ. Res.*, 1962, 32(1), 64-77.—Following a short summary of important books and general articles, the discussion focuses upon the following: (a) major theoretical and methodological

trends, (b) new approaches in the development or use of projective techniques, and (c) representative findings of validity and predictive studies. Attention has been directed primarily to projective methods that are currently or potentially amenable to use as quantitative instruments and to techniques whose potential value is not limited to the study of psychopathology. The practical usefulness of projective techniques in predicting educational or industrial criteria continues to be small. However, there is a place for projective methods in educational research when they are used in combination with other techniques in studies designed within a theoretical framework that permits some evaluation of the construct validity of the projective technique itself. (71 ref.)—*F. Goldsmith*.

1275. Rychlak, Joseph F., & Guinouard, Donald E. (St. Louis U.) Symbolic interpretation of Rorschach content. *J. consult. Psychol.*, 1961, 25 (4), 370.—Rorschach content for 11-14 year old boys and girls is directly related to personality characteristics. Theory of "universal" symbolism through broad cultural factors is discussed.—*E. R. Oetting*.

1276. Smith, Charles Philip. (U. Michigan) Situational determinants of the expression of achievement motivation in thematic apperception. *Dissert. Abstr.*, 1961, 21(12), 3875-3876.—*Abstract*.

1277. Stančák, A., & Fraenkel, E. (Psychiatrická Klinika, Košice) Faktorová analýza Rorschachových nálezov u neuróz pred a po aplikácii etylalkoholu. [Factor analysis of Rorschach's findings regarding neuroses before and after the application of ethylalcohol.] *Ceskoslov. Psychol.*, 1961, 5, 363-372.—Analysis of findings concerning a Rorschach experiment with 45 neurotics aged 18-50 immediately following, and 4 days after consumption of 0.5 gm. pure alcohol. 7 factors are found in both experiments. 2 are common to both: R (total responses) and T (time). There are 3 more factors in the experiment without alcohol: Do (oligophrenic detail), O (original response), and W (whole response). Factors C (color response) and F (form response) are stated after alcohol consumption. (22 ref., Russian & English summaries)—*V. Břicháček*.

1278. Zulliger, Hans. Der Zulliger-Tafel-Test (Tafeln-Z-Test): Ein Rorschach-Verfahren mit drei Tafeln für individuelle psychologische Prüfungen. [Zulliger Card Test (Card Z Test): A three-card Rorschach method for individual administration.] Bern, Switzerland: Huber, 1962. (1 card, 290 p., DM 32.; 3 test cards, DM 9.; 50 response sheets, DM 5.)—This is the 2nd, enlarged edition of a widely distributed text and exercise book on the Rorschach. It is concerned with: (a) quantitative evaluation, (b) general psychological evaluation, and (c) evaluation of specific problems (school problems, maladaptation, retardation, occupation, abnormality). It also contains a mixture of selected case reports and papers on the Rorschach. The analysis is in terms of individual case reports, and no norms are given.—*J. C. Brengelmann*.

PERSONALITY DIAGNOSIS

1279. Beitner, M. S. (Garden Grove, Calif.) Word meaning and sexual identification in paranoid schizophrenics and anxiety neurotics. *J. abnorm. soc. Psychol.*, 1961, 63(2), 289-293.—From

psychoanalytic theory it is reasoned that the paranoid schizophrenic is one who has not made an adequate identification with the parent of like sex; other theoretical formulations presuppose a lack of identification with either parent. To test which of these hypotheses is valid, Osgood's Semantic Differential was used as a measure of identification (as established by Lazowick, 1955). It was given to a sample of hospitalized paranoid schizophrenics, an outpatient VA mental hygiene clinic sample of anxiety neurotics, and 2 control groups, hospitalized TB patients and working people. The results indicated that the paranoid schizophrenic showed lack of identification with either parent. To some extent, this was true of the identification pattern of the neurotic group, but the latter also showed confusion of identification.—*G. Frank*.

1280. Dar'in, E. (Mental Health Clinic, Ramat Hen) Tofaot shel hafraa hitpathutit etsel yeladim. [Developmental disturbances among children.] *Dap. refuim*, 1961, 20, 489-495.—Developmental processes are defined, and causes of clinical disturbances in them are analyzed. Significant pathological signs are described as they appear in examinations: skull X rays, EEG, and psychological tests. The importance of the latter is stressed. Problems related to etiology, therapy, and prognosis of these cases are discussed. (English & French summaries)—*H. Ormian*.

1281. Eysenck, H. J., & Claridge, G. (Inst. Psychiatry, Maudsley Hosp., U. London) The position of hysterics and dysthymics in a two-dimensional framework of personality description. *J. abnorm. soc. Psychol.*, 1962, 64(1), 46-55.—Eysenck's theory (1957) predicts that 2 dimensions, neuroticism (N) and introversion-extraversion (IE), may be used to describe neurotics. Hysterics and psychopaths are characterized as high N-E; obsessive, compulsive, depressive, anxious, or phobic patients would be N-I. To some extent this prediction has not been borne out, particularly with regard to the hysterics. The present research attempted to reassess the validity of these hypotheses. Sedation threshold, Maudsley Personality Interview, reaction test, and spiral aftereffects were obtained on Ss. Single-task analysis did not identify the Ss as predicted; multiple discriminant function did. Factor analysis isolated the original 2 dimensions.—*G. Frank*.

1282. Friedman, Joseph, & Schiffman, Harold. Early recollections of schizophrenic and depressed patients. *J. indiv. Psychol.*, 1962, 18(1), 57-61.—Psychologically unsophisticated judges can rapidly distinguish psychotic depressives from paranoid schizophrenics on the basis of the patients' early recollections. "It would appear feasible to differentiate other nosological groups similarly through early recollections."—*A. R. Howard*.

1283. Heilizer, F. (VA Hosp., Northampton, Mass.) A note on the scoring of ego disjunction. *J. abnorm. soc. Psychol.*, 1961, 63(2), 438-439.—A statistical reanalysis of the findings presented previously (see 34: 1064) demonstrated that the method of measuring ego disjunction was not as effective in distinguishing schizophrenics, character disorders, and college students as has been reported.—*G. Frank*.

1284. Jackson, Marilyn, & Sechrest, Lee. Early recollections in 4 neurotic diagnostic categories.

J. indiv. Psychol., 1962, 18(1), 52-56.—Early childhood recollections of 77 patients confirm a number of hypotheses including the greater likelihood of finding fear themes in anxiety neurotics, abandonment themes in depressed patients, and themes of gastrointestinal distress in persons with gastrointestinal disorders.—*A. R. Howard.*

1285. Kidd, Cecil B. (U. Edinburgh, Scotland) **Criteria for admission of the elderly to geriatric and psychiatric units.** *J. ment. Sci.*, 1962, 108, 68-74.—100 patients from each of 2 units were randomly selected for study using 4 psychological tests. Patients could be graded from entirely mentally ill to entirely physically ill. 25%-35% of the elderly patients were misplaced.—*W. L. Wilkins.*

1286. Kogan, V. M., & Rogovin, M. C. (Central Research Inst., Moscow, USSR) **Assotsiativnyi eksperiment i ego klinicheskoe primenenie.** [The association experiment and its clinical application.] *Vop. Psikh.*, 1961, No. 6, 105-113.—A review of the classical types of association experiment and a description of some current diagnostic uses of word association in the Soviet Union. It is pointed out that difficulty of association is observed even when speech is essentially normal. Thus, difficulty of association is not a disturbance of habitual behavior but occurs when habits are deautomatized. Various response indices have diagnostic value, e.g., the rhythm and patterning of responses as well as the latency and types of responses. Different types of pathology affect free and controlled association in different ways. For example, arterosclerosis and hypertension can sometimes be differentiated by differential pulse rate and latencies of responses in controlled association experiments.—*H. Pick.*

1287. Kondáš, O. (Psychiatrická Léčebna, Velké Levare) **Naše zkušenosti s metodou slovného stereotypu a možnosti jej použítia u psychóz.** [Experiences with the method of the verbal stereotype and its application in psychoses.] *Ceskoslov. Psychol.*, 1961, 5, 257-266.—The adjusted method of the verbal stereotype (L. G. Pervov) and its practical application in psychiatry is described. The method is based on the principle of overlearning of patients' association pairs and is used along with the association experiment, verifying and complementing it. Statistical differences between schizophrenics, other psychotics, neurotics, and healthy Ss are found in the latency and in the number of incorrect reactions. (Russian & English summaries)—*V. Bricháček.*

1288. Laforge, Rolfe. (U. Illinois) **Objective estimates of clinical judgments.** *J. consult. Psychol.*, 1961, 25(4), 360-361.—A discussion of cues used in clinically inferring repression from a Minnesota Multiphasic Personality Inventory profile. Reconstituted data are cross validated, and both a Guttman-type scale and a scoring procedure are presented that relate to inference of repression from the MMPI.—*E. R. Oetting.*

1289. Lersch, Philipp. **Gesicht und Seele.** (5th ed.) [A psychological study of facial expression.] Munich, Germany: Reinhardt, 1961. 168 p., 12 cards. DM 8.80 (cloth), M 6.80 (paper).—This is the 5th edition of an anecdotal treatise, unchanged since 1932, on facial expression.—*J. C. Brengelmann.*

1290. Nurnberger, John I. (Indiana U. Medical Center) **Diagnostic signs and symptoms of emotional disorders.** Grand Rapids, Mich.: Aquinas College, 1961. 41 p. \$.75.—Understanding the disordered man depends on some understanding of the ordered man, if he be the norm from which deviations may be symptomatic. Symptoms depend upon cultural norms, but also on constitutional factors and developmental experiences. The human organism can exploit only behavioral mechanisms which have become a part of familiar routines acquired during the course of development, and a developmental analysis of symptoms is necessary. Symptoms can be ranged on a continuum from least to most significant in terms of degree of distortion of reality, degree of restriction of reality, and extent of compromise of object relationships.—*W. L. Wilkins.*

1291. Oskamp, Stuart Willard. (Stanford U.) **The relationship of clinical experience and training methods to several criteria of clinical prediction.** *Dissert. Abstr.*, 1961, 21(11), 3527-3528.—*Abstract.*

1292. Shulman, Bernard H. **The family constellation in personality diagnosis.** *J. indiv. Psychol.*, 1962, 18(1), 35-47.—"A Family Constellation Interview Guide, questioning the subject about his parents and siblings, and calling for his rating of himself and his siblings in essential respects, is presented, discussed, and illustrated by a case." The style of life is revealed "in less time and more easily than any other diagnostic tool with which the writer is acquainted."—*A. R. Howard.*

1293. Terrill, James McGuffin. (Stanford U.) **The relationships between Level II and Level III in the interpersonal system of personality diagnosis.** *Dissert. Abstr.*, 1961, 21(11), 3529-3530.—*Abstract.*

1294. Ward, Joe H., Jr. (Personnel Lab., Wright Air Development Division, Dayton, O.) **Comments on "The Paramorphic Representation of Clinical Judgment."** *Psychol. Bull.*, 1962, 59(1), 74-76.—Hoffman's (see 34: 7779) position concerning the independent contribution of a variable in the judgment process is examined by presenting several empirical examples. It is concluded that the concept of relative weight will not provide any information about the independent contribution of a predictor.—*W. J. Meyer.*

1295. Wittenborn, J. R. (Rutgers U., Interdisciplinary Research Cent.) **The dimensions of psychosis.** *J. nerv. ment. Dis.*, 1962, 134(2), 117-128.—"The present report describes a factor analysis of 98 new or revised rating scales. The analysis was conducted for the purpose of providing scoring dimensions for the new comprehensive scales. The extensions broaden the symptomatic coverage of the scales, and the revisions are simplifications and refinements resulting from experience with the original scales."—*N. H. Pronko.*

1296. Zigler, E., & Phillips, L. (Yale U.) **Psychiatric diagnosis: A critique.** *J. abnorm. soc. Psychol.*, 1961, 63(3), 607-618.—An analysis of the problems involved in psychiatric diagnosis, its validity, reliability, purpose, and achievement in light of the authors' own opinions and empirical evidence. They conclude that a classificatory system in psychiatry serves the same essential purpose as tax-

onomy in science in general, and that a simple, coherent, and meaningful system of classification based on behavioral correlates of psychiatric syndromes is possible. (77 ref.)—G. Frank.

PERSONALITY ADJUSTMENT

1297. Bene, Eva. Anxiety and emotional impoverishment in men under stress. *Brit. J. med. Psychol.*, 1961, 34, 281-289.—61 Hungarian refugees were studied with the Rorschach, a sentence completion test, and a questionnaire. The results are interpreted as showing that anxiety, guilt, depression, and reduced emotion occurred frequently in these Ss. Emphasis is placed on the effects of stress which did not occur early in life.—C. L. Winder.

1298. Berlew, D. E. (Wesleyan U.) Interpersonal sensitivity and motive strength. *J. abnorm. soc. Psychol.*, 1961, 63(2), 390-394.—Empathy, or interpersonal sensitivity, as measured by the method of Bronfenbrenner et al. (1958), involving ratings of self and others on adjectives describing behavior in a small group situation, was hypothesized to vary with degree of motivation. Criterion for motivation were scores on n Achievement, n Affiliation, and n Power, as found in TAT data, (McClelland et al., 1953). It was assumed that moderately motivated Ss would be more empathic (make more accurate judgments about others) than Ss high or low in motivation as measured. The results supported the hypothesis.—G. Frank.

1299. Diel, P. Psychologie de la motivation: Theorie et application therapeutique. (2nd ed.) [Psychology of motivation: Theory and therapeutic application.] Paris, France: Presses Universitaires France, 1962. 323 p. NF 12.—The technique of investigation used in this study is introspection. The ideal for man is to be able to examine his own psyche and pursue his "false" motivations in his subconscious. False motivation is the principle behind psychic illness. To unmask its various forms is to explain the method of an objective introspection. The author also uses clinical observation and intuition. He presents a detailed case which he analyzed.—V. Sanua.

1300. Dittes, J. E. (Yale U.) Impulsive closure as reaction to failure-induced threat. *J. abnorm. soc. Psychol.*, 1961, 63(3), 562-569.—"Some persons impose meaning and pattern—closure—on ambiguous stimuli more readily than other persons. . . the hypothesis is proposed that closure generally acquires a self-esteem enhancing reward value and that persons experiencing greater need to maintain or enhance self-esteem are . . . likely to impose more impulsive closure. Self-esteem was manipulated by causing some subjects to experience failure on an ego involving task and others . . . to experience failure on a noninvolving task or to experience success. Ego involving failure resulted in more impulsive closure."—G. Frank.

1301. Eysenck, H. J. (U. London) A note on "Impulse Repression and Emotional Adjustment." *J. consult. Psychol.*, 1961, 25(4), 362-363.—A critique of Grater (see 34: 8202) emphasizing necessity for multidimensional approach in studying neuroticism.—E. R. Oetting.

1302. Farber, B. (U. Illinois). Elements of competence in interpersonal relations: A factor analysis. *Sociometry*, 1962, 25(1), 30-47.—The responses of 495 husbands to 104 items representing competence in interpersonal relations were factor analyzed. A combined Centroid and Verimax solution yielded 11 factors with a high loading on at least 3 items. These 11 factors were grouped into 5 content categories: perceived empathy, autonomy, resourcefulness, cooperativeness, and tested empathy. Each element of competence may consist of a G-factor and special factors related to particular relationships. Cooperativeness as an element of competence is not defined by Foote and Cottrell although their conception of autonomy, resourcefulness, and empathy are generally supported. "Empathy may be viewed more profitably as a social process than as a capacity." Possible sources of invalid results are discussed.—H. P. Shelley.

1303. Goins, Alvin E. (USN Research Lab.) Rigidity-flexibility: Toward clarification. *Merrill-Palmer Quart.*, 1962, 8(1), 41-61.—The author presents "a comprehensive conceptualization of rigidity-flexibility." (106 ref.)—E. L. Robinson.

1304. Horowitz, Esther. (Columbia U.) Reported embarrassment memories of elementary school, high school, and college students. *J. soc. Psychol.*, 1962, 56, 317-325.—The purpose of this study was to estimate whether embarrassing experiences are less likely to be reported by Ss dissatisfied with their self-concepts than by Ss who express greater self-acceptance. Another aspect of the problem was whether an increase in chronological age is accompanied by a tendency to report fewer early embarrassment memories. The Ss were 100 elementary school students, 100 high school students, and 100 college students. The data were obtained by 2 questionnaires: (a) an Embarrassment questionnaire, and (b) a Self-Concept and Ego-Ideal questionnaire. The results were as follows: (a) Within each educational group (elementary, secondary, college) the older the S, the later the reported age of earliest remembered embarrassing experience. (b) There was a significant difference among the 3 samples in the frequency of reported early embarrassment memories. The high school and college samples reported fewer embarrassing memories for the age period 2-11 years than did the elementary school sample. (c) A greater proportion of embarrassment memories was reported by the high school and college samples for the age period 11-15 years than for the period 2-11 years. (d) On the high school and college levels, the greater the discrepancy between self-concept and ego-ideal, the fewer the reported embarrassment memories.—Author abstract.

1305. Howe, E. S. (U. Maryland School Medicine) Postponement behavior as a function of approach and avoidance motivation. *Psychol. Rep.*, 1962, 10(1), 275-283.—A request for volunteers for an experiment involving electric shock and a \$3.00 reward was submitted to 178 college students. Ss indicated preference for immediate experimentation or postponements of 1, 2, or 3 weeks. 50 males and 56 females volunteered. For pooled Ss postponements increased as a function of scores on a n Harm-avoidance test and decreased as a function of n Cash scores. There was interaction between these effects and sex. Scores on 2 anxiety scales were not related

to postponement. Results were related to Miller's theory of approach-avoidance gradients.—B. J. House.

1306. Jones, E. E., Davis, K. E., & Gergen, K. J. (Duke U.) **Role playing variations and their informational value for person perception.** *J. abnorm. soc. Psychol.*, 1961, 63(2), 302-310.—The hypotheses were offered that the degree to which an individual conforms to a role (a set of behavior expectancies), the less he reveals about himself; in complete identity with the role, S's behavior is almost entirely determined by what he experiences to be expected of him; and behavior inconsistent with role expectancy is generally determined by idiosyncratic attitudes. Ss listened to recorded interviews between a psychologist and a "job applicant." The positions were that of submariner and astronaut; both, as described, involved different personality types. Tapes were made between interviewer and interviewee for the 2 positions, from which 4 tapes were produced: 2 with the actual answers, and 2 with answers of 1 spliced to questions of the other halfway through the tape. Ss tended to perceive the out-of-role answers as revealing more of the interviewee's personality.—G. Frank.

1307. Lawrence S. Wrightsman, Jr. (George Peabody Coll. Teachers) **The effects of anxiety, achievement motivation, and task importance upon performance on an intelligence test.** *J. educ. Psychol.*, 1962, 53(3), 150-156.—In a study to determine how anxiety and achievement motivation affect performance on an intelligence test under 2 conditions of task importance, 234 Ss completed the MA scale, a projective measure of achievement motivation, and an intelligence test. 122 Ss were led to believe that performance on the intelligence test was very important; the other 112 Ss were led to believe the test was given only to collect norms. When the test was seen as important, anxious Ss scored significantly lower than nonanxious Ss. In the other condition, anxiety was unrelated to test performance. Ss high in internalized achievement motivation performed equally well on the test regardless of its purported importance. Low achievement motivation Ss did less well when they thought the test was important, perhaps indicating an avoidance reaction to stress.—*Journal abstract.*

1308. Lobsenz, Norman M. **Is anybody happy? A study of the American search for pleasure.** Garden City, N. Y.: Doubleday, 1962. 190 p. \$4.50.—A professional writer examines an American paradox—the fact that Americans have more leisure than any people have ever had and apparently enjoy it less.—C. H. Miley.

1309. Mayer, A. J., & Sharp, H. (Wayne State U.) **Religious preference and worldly success.** *Amer. sociol. Rev.*, 1962, 27(2), 218-227.—"The relationship between religious preference and worldly success as currently found in metropolitan Detroit is analyzed. The data are derived from a series of personal interviews with probability samples of all greater Detroit adults. White and nonwhite adults are analyzed separately. An attempt is made to place all religious denominations on an 'equal footing' with respect to those ascribed factors which are conducive to high economic achievement . . . in an urban environment. Actual achievement is then measured against the potential for this performance. The re-

sults offer some support for a contemporary interpretation of the Weberian thesis of the Protestant ethic, while presenting important modifications. Most Protestant denominations far exceed the Catholics in economic standing, and the various Protestant denominations are ranked in a general order which is in substantial agreement with expectations. Possible explanations for the high achievement of Jews and Detroiters of the Eastern Orthodox faith are presented.—L. Berkowitz.

1310. Moss, H. A. (Child Research Branch, National Inst. Mental Health) **The influence of personality and situational cautiousness on conceptual behavior.** *J. abnorm. soc. Psychol.*, 1961, 63(3), 629-635.—An assessment of the degree to which cautiousness ("the tendency to behave in a manner designed to avoid potential failure or disapproval experiences . . . often at the expense of other satisfactions") affected responsiveness to TAT cards and MAPS. Degree of cautiousness was assessed by performance on the Rotter Level of Aspiration Board (see 19: 2261). Ss were then administered a test of social acceptability of attitudes and were either told that they scored low (failure experience), scored high (success experience), or were given no feedback (neutral). Comparisons of cautious (C) and non-cautious (NC) Ss revealed that degree of cautiousness distinguished C and NC Ss in the neutral situation only. The finding supported the assumption that cautiousness, as a personality trait, could also be used to describe conceptual behavior.—G. Frank.

1311. Muecher, H., & Heckhausen, H. **Influence of mental activity and achievement motivation on skeletal muscle tonus.** *Percept. mot. Skills*, 1962, 14, 217-218.—Mental activity (3 tasks) raised the electromyograph of 33 students to a level higher than that characteristic for rest. Records of Ss classified as high in achievement motivation shown in TAT stories were higher than those for Ss with low or medium achievement motivation.—W. H. Guertin.

1312. Murstein, Bernard I. (Interfaith Counseling Center, Portland, Ore.) **The relation of the Famous Sayings Test to Self- and Ideal-Self-Adjustment.** *J. consult. Psychol.*, 1961, 25(4), 368.—Famous Sayings Test scores related to Butler-Haig S10 Q sort in psychology students. Only Social Acquiescence is related to Self-Ideal-Self-Adjustment discrepancy.—E. R. Oetting.

1313. Pedersen, S. **Personality formation in adolescence and its impact upon the psycho-analytical treatment of adults.** *Int. J. Psycho-Anal.*, 1961, 42, 381-388.—Speculations regarding the processes operating in the psychological development of adolescences. The adolescent development of 4 patients is described to demonstrate the author's views.—G. Elias.

1314. Peters, Alice. (New York U.) **An investigation of the relationship between the inability of some women in psychotherapy to accept their female role and their perception of their mothers' attitudes toward the female role.** *Disser. Abstr.*, 1961, 21(12), 3856-3857.—*Abstract.*

1315. Rabin, Herbert M. (U. Illinois) **Perception of others by adjusted and maladjusted subjects as reflected in measures of perceptual space.** *J. soc. Psychol.*, 1962, 56, 149-158.—An investigation of generalized perceptual tendencies

was conducted using Cronbach's (1958) proposed methodology to measure a person's perceptual space. A very heterogeneous group of 10 individuals was rated (each separately) by the Ss to determine the perceptual space of the Ss. A 36-item 5-point adjectival rating scale was used. The scale was factored into dimensions labeled Unhappy, Patient-Agreeable, Dependable, and Adventurous. Of the 80 Ss who participated, 40 were classified as "maladjusted" (primarily voluntary outpatients with neurotic difficulties) and 40 Ss as "adjusted." The following results were obtained: (a) moderately reliable differences among the Ss in certain generalized perceptual tendencies were demonstrated; (b) Ss who perceive the individuals as widely or narrowly divergent on one dimension tended to see them as divergent to a similar degree on the other dimensions; (c) maladjusted Ss reported significantly greater personality differences among the individuals than did adjusted Ss, and females reported significantly greater differences than males—these differences were consistent over all 4 dimensions; (d) there were no significant differences between the adjustment or between the sex subgroups in their average ratings of the individuals. The findings indicated Cronbach's proposed methodology has considerable promise in the area of interpersonal perception.—*Author abstract.*

1316. Roff, M. (U. Minnesota) **Childhood social interactions and young adult bad conduct.** *J. abnorm. soc. Psychol.*, 1961, 63(2), 333-337.—Case history data of former patients at 2 child guidance clinics that had been subsequently discharged from service because of bad conduct were examined. A major and significant trend was found reflecting an inverse relationship between peer group adjustment and evidence of bad conduct. The adult "bad conduct" group seemed to be characterized as children who had antagonized their peers to an unusual degree. The results demonstrated the predictive value of adjustment in childhood and behavior in adulthood.—*G. Frank.*

1317. Rosenbaum, M. E., & Stanners, R. F. (State U. Iowa) **Self-esteem, manifest hostility, and expression of hostility.** *J. abnorm. soc. Psychol.*, 1961, 63(3), 646-649.—In a previous study (see 34: 7173), it was shown that Ss with low self-esteem, as measured by the Self-Esteem Scale, and high manifest hostility, as measured by Siegel's (1956) Manifest Hostility scale (MH scale), were found to have a high hostility response tendency. In the present study, arousal of hostility was stimulated by criticizing college Ss performing tests, measured via TAT cards, and related to the measure of self-esteem. Ss with a high degree of hostility arousal showed high MH scale scores but not low scores on the Self-Esteem Scale.—*G. Frank.*

1318. Sacher, Horst. (Universitätsnervenklinik, Erlangen, Germany) **Der Moralcharakter als Regulierungsgefüge der Persönlichkeit.** [The moral character as regulatory stratum of the personality.] *Z. exp. angew. Psychol.*, 1961, 8(4), 633-687.—Structure and regulatory function of the moral character are described; and 25 examples, taken from fictional literature, are given in order to demonstrate types of the regulatory dynamics.—*W. J. Koppitz.*

1319. Shanmugan, T. E. (U. Madras). **Voluntary inhibition and disinhibition in relation to personality traits.** *Psychol. Stud., Mysore*, 1961,

6(1), 36-40.—50 boys 15-17 years of age were given a word association test through which voluntary inhibition and disinhibition were studied. The Maudsley Personality Inventory was also used. Significant positive correlation was found between inhibition and neuroticism, and negative correlation between extroversion-introversion traits and inhibition. There was no significant correlations between inhibition and disinhibition, and extroversion-introversion traits and disinhibition and neuroticism.—*U. Pareek.*

1320. Singh, S. D., Sharma, N. R., & Vimal, Kumari. (Agra U.) **Personality differences in fluctuation of attention.** *Psychol. Stud. Mysore*, 1961, 6(1), 55-60.—Maudsley Personality Inventory was administered to 40 male adult students who were also tested for fluctuation of attention on the masson disc. Results show that extraverts fluctuated more than the introverts, the neurotics more than the non-neurotics. The extraverted neurotics fluctuated the most and the introverted non-neurotics the least.—*U. Pareek.*

1321. Strider, Fred Donald. (U. Nebraska) **Self concept factors affecting judgments of others.** *Dissert. Abstr.*, 1961, 21(12), 3858.—*Abstract.*

1322. Talbot, E., Miller, S. C., & White, R. B. (Austen Riggs Center, Stockbridge, Mass.) **Some aspects of self-conceptions and role demands in a therapeutic community.** *J. abnorm. soc. Psychol.*, 1961, 63(2), 338-345.—"A study of role demand and self-conception using the semantic differential technique was conducted in a psychiatric hospital organized as a therapeutic community." Patients and staff described various roles in the hospital, reflecting different levels of social structure within that community (worker, citizen, student), and gave descriptions of their self-concept. Self-concept was seen to be related to the demands perceived by the different roles in that Ss with greater ego organization gave self-descriptions reflecting the capacity to meet the demands they perceived were made on them by these various social roles.—*G. Frank.*

1323. Tanco-Duque, Rosa. (Transversal 25, No. 57-81, Bogotá, Colombia) **Schuldgefühl und soziale Entfremdung.** [Guilt feeling and social estrangement.] *Z. psycho-som. Med.*, 1961, 7, 190-192.—"Although existence of adequate guilt feelings is not denied, the social-historic conditioning of neurotic guilt feelings is emphasized. Such guilt feelings develop from the conflict between the adaptation to an introjected estrangement and the protest against it."—*I. Neufeld.*

1324. Veroff, J., Feld, Sheila, & Gurin, Gerald. (U. Michigan) **Achievement motivation and religious background.** *Amer. sociol. Rev.*, 1962, 27(2), 205-217.—"High achievement motivation scores derived from thematic apperceptive measures administered in a nationwide sample survey were most prevalent in Jewish men, and more prevalent in Catholic than in Protestant men. This high incidence among Catholic men was found attributable largely to the middle-aged group. Furthermore, Catholics' achievement motivation, unlike Protestants' was associated with a low income and a large family. This difference is interpreted as an indication of the more restrictive and concrete significance achievement has for Catholics. From the national survey and from other findings, evidence suggesting that Catholic

child-rearing would induce an achievement orientation sensitive to specific economic failure is offered. The inconsistency of these results with previous findings is interpreted in terms of the high economic status and restricted geographic locale of the population from which previous samples were drawn.—L. Berkowitz.

1325. Wurster, C. R., Bass, B. M., & Alcock, W. (Louisiana State U.) **A test of the proposition: We want to be esteemed most by those we esteem most highly.** *J. abnorm. soc. Psychol.*, 1961, 63(3), 650-653.—To test the proposition, college Ss were first asked to list the names of 15 campus friends. Then S was requested to rank them according to preference as a study partner ("scholastic esteem"), desire to have them join a club of S's ("social esteem"), and desire to give them esteemable social or scholastic information about self. The results indicated a significant correlation between social esteem and the desire for the esteemed to have esteemable social and scholastic information. The scholastically esteemed were more a target for scholastic than social data.—G. Frank.

1326. Zuckerman, Marvin; Levitt, Eugene E., & Lubin, Bernard. (Inst. Psychiatric Research, Indianapolis, Ind.) **Concurrent and construct validity of direct and indirect measures of dependency.** *J. consult. Psychol.*, 1961, 25(4), 316-323.—In sophomore student nurses, peer ratings of dependency are related more highly to more direct measures such as self-ratings, a combination of Gough Dominance and Navran Dependency Questionnaires and Edwards' Personal Preference Schedule. They are not related to Rohde's Sentence Completion test, Group TAT, and Rorschach. Factor analysis of individual scores yields 4 factors, of combination scores yields 1 general dependency factor.—E. R. Oetting.

Anxiety

1327. Aiken, L. R., Jr. (U. North Carolina) **Paper and pencil anxiety.** *Psychol. Rep.*, 1962, 10(1), 107-112.—A method for defining anxiety by cluster analysis is proposed. "The writer pictures anxiety as a linkage construct referring to the mapping of stimuli (anxors) onto an exclusive set of responses (anxiety reaction) and feels that a definition program which begins by isolating an anxiety reaction pattern or cluster is propaedeutic to a search for stimuli which evoke such a set of responses." Several current problems of anxiety are discussed and an empirical example presented which indicates how the program might be carried out.—B. J. House.

1328. Blood, Kenneth Harry. (Washington State U.) **A study of the relationship between anxiety and ambiguity tolerance.** *Dissert. Abstr.*, 1961, 21(11), 3521.—Abstract.

1329. Byrne, D. (U. Texas) **Anxiety and the experimental arousal of affiliation need.** *J. abnorm. soc. Psychol.*, 1961, 63(3), 660-662.—Small groups of college Ss were placed in a 1-way vision observation room; the instructions structured the situation so that personal anxiety was presumed to be high. Other groups were purposefully not exposed to anxiety-producing instructions. Level of anxiety was measured by self-rating scales, need for affiliation was assessed through TAT cards. It was assumed that degree of anxiety would be positively related to de-

gree of need affiliation. Ss high in need affiliation did rate themselves higher in anxiety when placed in the anxiety-producing situation; in the non-anxiety-producing situation, affiliation need was unrelated to anxiety.—G. Frank.

1330. Garre, Walter J. (VA Hosp., San Francisco, Calif.) **Basic anxiety.** New York: Philosophical Library, 1962. 123 p. \$5.00.—The basic concepts of medical psychology and of psychotherapeutic approaches are reviewed from a viewpoint of basic anxiety. The author's perception of the etiology of anxiety is given, and a biological identification is obtained. The thesis propounded appears to be an attempt to explain the origin, persistence, and primacy of anxiety in the neurosis and other functional diseases of the psychobiologic unit.—S. B. Coslett.

1331. Hammes, J. A., & Wiggins, S. L. **Manifest anxiety and appreciation of humor involving emotional content.** *Percept. mot. Skills*, 1962, 14, 291-294.—The purpose of this study was to test the prediction that individuals having high manifest anxiety would appreciate light humor material involving emotions of worry, tension, and depression less than would low-anxious individuals. Selected on the basis of a manifest anxiety scale, low-anxious and high-anxious Ss evaluated the humor content of 30 "Peanuts" cartoon strips, chosen for light humor material. 10 of the cartoons utilized the emotions of worry, depression, and tension as the basis of humor. The prediction was verified with regard to male Ss only, and the results were interpreted in terms of the degree of identification with the principal cartoon characters.—W. H. Guertin.

1332. C. G. Jung Institute. (Zürich, Switzerland) **Die Angst.** [Anxiety.] Zürich, Switzerland: Rascher, 1959. 253 p. S. Fr. 21.40.—In a 1958-59 lecture series at the C. G. Jung Institute, the central topic of "anxiety" was considered in terms of its meaning for or relationship to animals (H. Hediger), children (H. Zulliger), femininity (E. Neumann), politics (U. Schwarz), psychiatry (G. Benedetti), life and death (A. Jores), religion (E. Benz), and occidental painting (W. Ueberwasser).—H. P. David.

1333. Levine, Gene N. (Columbia U.) **Anxiety about illness: Psychological and social bases.** *J. Hlth. hum. Behav.*, 1962, 3(1), 30-31.—A nationwide quota-controlled sample of 2970 was interviewed concerning grave illnesses and health agencies. 6 diseases, including cancer, were rated on a 5-point anxiety scale and the Ss were questioned about their opinions and background. Among the results were the following mean anxiety ratings: cancer, 72; polio, 58; cerebral palsy, 52; arthritis, 50; birth defects, 46; tuberculosis, 38. Moreover, level of education correlated negatively with fear as did possession of adequate community medical resources. However, acquaintance with victims breeds apprehension, as does intimate knowledge about a disease. Other findings and the psychodynamics of anxiety are outlined.—L. A. Ostlund.

1334. Yampey, Nasim. **Ansiedades basicas en la parturienta.** [Basic anxieties in parturition.] *Acta neuropsiquiat. Argent.*, 1961, 7(4-5), 269-272.—The characteristic fears in women about to give birth are analyzed. The principal themes are: (a) fear of death during delivery, (b) fear of the delivery itself, (c) fears referred to the child, and (d) fear or con-

flict in regard to the pregnancy. These fears are ascribed to an emotional immaturity and an inadequate preparation of these women. The presence of the husband during the delivery is recommended.—*W. W. Meissner.*

Defenses

1335. Byrne, Donn, & Holcomb, John. (U. Texas) **The reliability of a response measure: Differential recognition-threshold scores.** *Psychol. Bull.*, 1962, 59(1), 70-73.—In studies of perceptual defense where the dependent variable has been differential thresholds for emotionally toned vs. neutral stimulus materials, little attention has been given to the internal consistency of such measures. A study is reported which suggests that the internal consistency may be very low.—*W. J. Meyer.*

1336. Clausman, Raymond Joseph. (Michigan State U.) **Subception as a veridical process and perceptual defense as avoidant and vigilant behavior.** *Dissert. Abstr.*, 1961, 21(11), 3521-3522.—*Abstract.*

1337. Eagle, Morris N. (New York U.) **The effects of subliminal stimuli of aggressive content upon conscious cognition.** *Dissert. Abstr.*, 1961, 21(12), 3849.—*Abstract.*

1338. Feshbach, S. (U. Pennsylvania) **The stimulating effects of a vicarious aggressive activity.** *J. abnorm. soc. Psychol.*, 1961, 63(2), 381-385.—Previous research had demonstrated the reductive as well as the stimulating effect of aggressive activity upon feelings of aggression. To explain this inconsistency, it was herein assumed that unless the original hostile intent was aroused at the time of vicarious aggressive activity, reduction in feelings of hostility would not occur. Measurement of aggressive feelings was in terms of responses in a word association test and an attitude questionnaire. Exposure to personal insult and a film depicting aggressive activity interacted to produce less manifest hostility than groups exposed to a neutral film. The Ss' answers to the projective were different from these on the more structured test; suggested the inhibitory presence of guilt.—*G. Frank.*

1339. Forrest, D. W., & Lee, S. G. (Bedford Coll., U. London, England) **Mechanisms of defense and readiness in perception and recall.** *Psychol. Monogr.*, 1962, 76(4, Whole No. 523), 28 p.—An experimental pilot study followed by the "main experiment" on the role of perceptual defense as a repressive process. In both studies Ss were British women undergraduates, ranging in age from 18 to 21, drawn from a college for women. Use was made of a series of graphic figures of simple construction, exposed tachistoscopically; the Ss reported both what they received and what they later remembered. This behavior was studied from the standpoint of the material's unique motivational significance to the individual by using Edward's Personal Preference Schedule, Murray's Need Questionnaire, and a projective test (based on projection of imagined scene from a blank card) as initial criteria of need. In general, the findings supported the conclusion that strong conscious needs produce a sensitization effect to illustrations related to them. On the other hand, no evidence was obtained that perceptual defense is a repressive process.—*M. A. Seidenfeld.*

1340. Haas, Kurt. (Pennsylvania State U.) **A learning theory explanation of perceptual defense.** *Dissert. Abstr.*, 1961, 22(1), 332.—*Abstract.*

1341. Luborsky, L., & Shevrin, H. **Forgetting of tachistoscopic exposures as a function of repression.** *Percept. mot. Skills*, 1962, 14, 189-190.—Are the correlates of the forgetting of fleeting impressions (after a day's delay) consistent with the explanation that defensive repression is in operation? This question was posed in the context of a replication of one of Poetzl's experiments and answered with a cautiously phrased affirmative.—*W. H. Guertin.*

1342. Mangan, G. L. **Generalisation of perceptual vigilance and defence.** *Percept. mot. Skills*, 1962, 14, 171-178.—Gradients of generalization for both vigilance and defence were clearly demonstrated, with the curves showing a marked similarity. Recognition under defence conditions was less efficient than under vigilance conditions, indicating some sort of perceptual delay mechanism. It is hypothesized that the very severe level of shock used under defence conditions resulted in a general state of arousal and, consequently, more efficient recognition of all stimuli; and that the delay in recognition of the test figures, i.e., the perceptual defence effect, was due to summation of arousal and anxiety occasioned by initial misperceptions, producing perceptual inhibition.—*W. H. Guertin.*

1343. Rosen, V. H. **The relevance of "style" to certain aspects of defence and the synthetic function of the ego.** *Int. J. Psycho-Anal.*, 1961, 42(4-5), 447-457.—The view is proffered that an individual's style of artistic production and of ordinary social communication reflects his peculiar personal synthesis of the content presented through various media.—*G. Elias.*

1344. Swanson, Guy E. (U. Michigan). **Determinants of the individual's defenses against inner conflict: Review and reformulation.** In John C. Glidewell (Ed.), *Parental attitudes and child behavior* (see 37: 913). Pp. 5-41.—An examination of the research literature lends support to the view of defenses which sees them as aspects of social roles. Such defensive behaviors are seen as shifting as the social situation changes thus providing a framework within which such behaviors can be experimentally manipulated.—*W. J. Meyer.*

1345. Taylor, J. R., & Mangan, G. L. **Perceptual learning and verbal meaning.** *Percept. mot. Skills*, 1962, 14, 223-229.—A pre- and posttraining comparison of responses of 38 Ss on the Semantic Differential indicated that changes in verbal meaning can accompany changes in perceptual organization (vigilance and defence) produced by electric-shock punishment.—*W. H. Guertin.*

1346. Veldman, D. J., & Worchel, P. (U. Texas) **Defensiveness and self-acceptance in the management of hostility.** *J. abnorm. soc. Psychol.*, 1961, 63(2), 319-325.—It was predicted that degree of self-acceptance (SA) and defensiveness (D) interact to influence the expression of hostility. It was hypothesized that Ss with low D and high SA (the adjustment) would express strongest feelings of anger with little anxiety associated with feelings of anger, while the high D/high SA person (the repressive) would express least anger, and the low D/low SA person (the anxious) would reveal high aggression-anxiety.

Degree of SA was predicted to be inversely related to displacement of hostility. Ss (college students) were exposed to a frustrating situation (failure in a test situation with concomitant insult). The results generally supported the hypotheses.—G. Frank.

1347. Wallach, Michael A., Green, Leonard R., Lippsitt, Paul D., & Minehart, Jean B. (Massachusetts Inst. Technology) **Contradiction between overt and projective personality indicators as a function of defensiveness.** *Psychol. Monogr.*, 1962, 76(1, Whole No. 520), 23 p.—120 1st-grade girls were measured on a defensiveness scale. They were also studied to determine social interaction versus social isolation (through a sociometric instrument) and graphic constriction versus expansiveness (on the basis of performance on individually administered drawing tasks of fixed time length). The investigators tested primarily the hypothesis that "among defensive subjects, those with extensive social ties should be more constricted graphically than those who are socially isolated; while among non-defensive subjects, those with extensive social ties should be more expansive graphically than those who are socially isolated." This was confirmed beyond the .001 level. Repetition showed that performances were highly reliable. Age, socioeconomic status, general intelligence, and verbal response productivity were found to be unrelated to constriction-expansiveness.—M. A. Seidenfeld.

1348. Weintraub, Walter, & Aronson, H. (U. Maryland, Baltimore) **The application of verbal behavior analysis to the study of psychological defense mechanisms: Methodology and preliminary report.** *J. nerv. ment. Dis.*, 1962, 134(2), 169-181.—N. H. Pronko.

1349. Worchel, P. (U. Texas) **Status restoration and the reduction of hostility.** *J. abnorm. soc. Psychol.*, 1961, 63(2), 443-445.—"The present study reports positive results on a test of the implications of a 'threat' theory of hostility, namely, that hostility is reduced by status restoration. Essentially, the experiment deals with techniques designed to restore the status or the integrity of the S, who has been subjected to the hostile arousing conditions, without permitting expression of aggression (catharsis or communication)."—G. Frank.

• PSYCHOANALYTIC THEORY

1350. Bettelheim, Bruno. (Sonia Shankman Orthogenic School) **The informed heart: Autonomy in a mass age.** Glencoe, Ill.: Free Press, 1960. x, 309 p. \$5.00.—The book is concerned with man's efforts to find meaning in life and maintain personal identity in crises. It describes transitions in the author's thoughts (as the result of his experiences as a Jewish prisoner-of-war in World War II German concentration camps) on the adequacy of psychoanalysis as a personality theory and a therapeutic method.—C. H. Miley.

1351. Bowlby, John. **Ethologisches zur Entwicklung der Objektbeziehungen.** [Ethological approach to the development of object relationships.] *Psyche, Stuttgart*, 1961, 15(9), 508-516.—Ethological research provides psychoanalysis as an empirical science with a variety of new concepts for testing. It seems possible that many neurotic and psychotic symptoms among humans represent "displacement

reactions" on a presymbolic level of functioning. Though this creates difficulties for many of the symbolic oral formulations of psychoanalysis, such an hypothesis is in accord with Freud's view of psychoanalysis as based on study of "the psychological concomitants of biological processes." (English version published in *Int. J. Psycho-Anal.*, 1960, 41, 313-317.)—E. W. Eng.

1352. Burchard, Edward M. L. (Queens Coll., Flushing) **The evolution of psychoanalytic tasks and goals: A historical study of Freud's writings on technique.** *Psychiatry*, 1958, 21, 341-357.—The gradual evolution of Freud's ideas about therapeutic technique is traced through his writings from 1895 to 1937. Attention is called to his changing concepts of technique; suitability for analysis of various types of disorder; uses of dream interpretation, transference and countertransference; goals of therapy; etc. The basis for almost every suggested modification of orthodox procedure can be found in germinal form in Freud's own writings. His final position of therapeutic nihilism is seen as the inevitable outcome of the clash between the restrictions of libido theory and his exalted therapeutic aspirations.—Author abstract.

1353. Dry, Avis M. (Leeds, Great Britain) **The psychology of Jung: A critical interpretation.** (London, England: Methuen, 1961. xiv, 329 p. \$6.00.—The 1st 5 chapters treat historically the development of Jung and his work. Chapters 6 through 9 discuss Jungian therapy, Jung's critique of Freud, religion, and changes in Jung's work. Chapter 10 elaborates on the social background in which Jungian psychology has been developed. Social and historical contingencies are emphasized throughout the book. (9-p. bibliogr.)—T. F. Naumann.

1354. Kaufman, I. Charles. **Instinkt, Energie und Trieb.** [Instinct, energy, and drive.] *Psyche, Stuttgart*, 1961, 15(9), 494-507.—English version published in *International Journal of Psycho-Analysis* (see 36: 1HM18K).—E. W. Eng.

1355. Klauber, John. **Freuds Ansichten zur Religion aus der heutigen Sicht.** [The present status of Freud's views on religion.] *Psyche, Stuttgart*, 1962, 16(1), 50-57.—Religion can be understood as the attempt to achieve inner harmony with the parental images no less than to retain childhood dependency. But psychoanalysis, by its scientific and reductive emphasis, maintains its distance from religious concerns. (English version published in *Synagogue Rev.*, 1960 (May), 34.)—E. W. Eng.

1356. Koff, R. H. **A definition of identification.** *Int. J. Psycho-Anal.*, 1961, 42, 362-370.—A review of different definitions of identification found in the literature plus the author's definition. The author emphasizes that identification refers to a family of concepts, many of which differ substantially from each other.—G. Elias.

1357. Krapf, E. E. **The concepts of normality and mental health in psycho-analysis.** *Int. J. Psycho-Anal.*, 1961, 42(4-5), 439-446.—G. Elias.

1358. Kubie, Lawrence S. (Sheppard & Enoch Pratt Hosp., Towson, Md.) **The fallacious misuse of the concept of sublimation.** *Psychoanal. Quart.*, 1962, 31, 73-79.—"Evidently the most striking thing about the phenomenon which has been called sub-

limation is the fact that it does not sublimate anything in any recognizable form; therefore, the concept has no validity in relation to the dynamics or fate of the unconscious conflicts with which men struggle. . . the question is why do expressions of unconscious conflicts in forms which are socially valuable, creative, or even beautiful leave unaltered both the unconscious conflicts from which they derive and their destructive potentials?"—J. Z. Elias.

1359. Kuiper, Pieter C. *Betrachtungen über die psychoanalytische Technik bei der Behandlung neurotischer Patientinnen*. [Observations on psychoanalytic technique in the treatment of neurotic female patients.] *Psyche, Stuttgart*, 1962, 15 (11), 651-668.—"Phenomenology and psychoanalysis are often played off against each other. But the difference in method can be accepted and the phenomenological principle followed, namely, by adhering closely to the patient's experience. If this is not done the first condition for psychoanalytic treatment is missing, the contact between patient and therapist. And theory that should have been an aid to therapy becomes a barrier between analyst and analysand."—E. W. Eng.

1360. Lagache, Daniel. *Pouvoir et personne*. [Power and personality.] *Evolut. psychiat.*, 1962, 27(1), 111-119.—"Considering the importance of power and of sado-masochistic trends in social life and interpersonal relationships, one asks what is their impact on the development and structuration of personality. The emphasis is put on the so-called 'opposition period,' on the conflict of requests between the child and the parents, on the mechanism of the identification with the aggressor. The differentiation of the Ego and the alter Ego, the development of a true interpersonal relationship implies not the abolishment but the management of narcissistic and sado-masochistic trends." (English summary)—L. A. Ostlund.

1361. Lerner, Marcelo. *Psicoanálisis e hipnoanálisis: Breve estudio comparativo*. [Psychoanalysis and hypnoanalysis: A brief comparative study.] *Acta neuropsychiat. Argent.*, 1961, 7(4-5), 283-289.—Points of comparison: time of treatment, applicability, analytic range, and recovery of traumatic memories, access to the unconscious, influence on psychopathic personalities, localization of the analyst's imago in the patient's psyche, and psychosomatic action. Hypnoanalysis is the instrument of choice in neuroses, psychosomatic illnesses, and some psychoses. 5 cases are reported.—W. W. Meissner.

1362. Meynard, Benjamin. *The nature of ego: A study*. New York: Philosophical Library, 1962. 211 p. \$4.50.—16 chapters are devoted to a philosophically oriented study in depth of the ego, the result of "nearly thirty years of reading and meditation." The concepts of James, Jung, and Ouspensky provide the frame of reference. The ego is analyzed according to its relationships to other phenomena, such as attitudes, consciousness, etc., as well as its multiplicity, power, and operation. Explanatory notes and references conclude each chapter. The final chapter suggests that, given certain conditions, the ego may function as an evolutionary tool.—L. A. Ostlund.

1363. Rado, Sandor. *Psychoanalysis of behavior: Collected papers. Vol. 2: 1956-1961*. New York: Grune & Stratton, 1962. vii, 196 p. \$6.50.—

This volume is a collection of 19 short papers, written from the author's theoretical viewpoint of "adaptation psychodynamics." Discussed are selected problems of psychopathology, psychotherapy, and psychoanalytic education.—H. H. Strupp.

1364. Salzman, Leon. (Georgetown U.) *Developments in psychoanalysis*. New York: Grune & Stratton, 1962. 301 p. \$7.75.—The book presents some of the developments in psychiatric and psychoanalytic theory that have grown out of Freud's original contributions. It deals largely with the later innovations which were more concerned with the development of ego theory—from those who offered a consistent and integrated theory of personality (Horney, Sullivan) to those who elaborated certain aspects of Freud's theory (Rado, Robbins, Ferenczi). It includes chapters on sex, female psychology, homosexuality, love, hostility and depression, masochism, and therapy.—V. Sanua.

1365. Stollreiter-Butzon, Leonie. *Über die Epilepsie des Fürsten Myschkin*. [The epilepsy of Prince Myshkin.] *Psyche, Stuttgart*, 1961, 15(9), 517-531.—The principal figure of Dostoevsky's *The Idiot* shows most of the characteristic features of the epileptic personality, and was probably modelled after the writer's own experiences.—E. W. Eng.

1366. Tidd, Charles W. *Ethologie und Psychoanalyse*. [Ethology and psychoanalysis.] *Psyche, Stuttgart*, 1961, 15(9), 487-493.—English version published in *International Journal of Psycho-Analysis* (see 36: 1HM8T).—E. W. Eng.

1367. Whyte, Lancelot Law. *The unconscious before Freud*. Garden City, N. Y.: Doubleday, 1962. 211 p. \$.95 (paper).—A paperback edition of the 1960 book.—E. Y. Beeman.

1368. Winnik, H. Z. *Bemerkungen zu einem thanatophilen Aspekt des Masochismus*. [Comments on a thanatophilic aspect of masochism.] *Psyche, Stuttgart*, 1962, 15(11), 641-650.—3 illustrative cases of masochism are presented in which the longing for fulfillment was prominent. Behind the search for suffering lay an unconscious defense, the denial of suffering through mobilization of the remnants of infantile omnipotence feelings. It was as if nothing could befall the ego, and as if death were not an annihilation, but a fulfillment.—E. W. Eng.

1369. Wisdom, J. O. *Ein methodologischer Versuch zum Hysterierproblem*. [A methodological essay on the problem of hysteria.] *Psyche, Stuttgart*, 1962, 15, 561-587.—Certain difficulties in Freud's theoretical explanations of hysterical symptoms can be overcome if it is hypothesized that there is a sadistic attack on the inner maternal part-object beneath the well-developed edipal phallic formation. To describe this structure more precisely it is helpful to distinguish between "orbital" and "nuclear" introjects. Feeling is directed to the former, while the person feels with the latter.—E. W. Eng.

1370. Wittenberg, Rudolph. *Common sense about psychoanalysis*. Garden City, N. Y.: Doubleday, 1962. 216 p. \$3.95.—A psychoanalyst seeks to answer in layman's language the questions most often asked him about his work. "What is psychoanalysis? What goes on in analysis? What about the patient-family relationships during analysis? Is analytic therapy effective with children and adolescents? How long does analysis usually take? Why does it

cost so much? What should analysis do for a person? Should everyone be analyzed if he can? How does a person get to be a psychoanalyst? How can you evaluate the competency of an analyst?"—C. H. Miley.

PHYSIOLOGICAL CORRELATES

1371. Hokanson, J. E., & Shetler, S. (Florida State U.) **The effect of overt aggression on physiological arousal level.** *J. abnorm. soc. Psychol.*, 1961, 63(2), 446-448.—Ss were exposed to frustrating conditions involving frustrators of high and low status, with or without an opportunity to give the frustrator an electric shock. Tension level (TL) was measured by systolic blood pressure. TL increased under conditions of frustration; returned to prefrustration level when S was able to retaliate against low-status frustrator, with or without retaliation against high-status frustrators, and remained high only when S was not able to express aggression against low-status frustrators. The results suggested that under certain conditions overt aggression was tension reducing; under others, TL may be reduced by other behavior, e.g., withdrawal.—G. Frank.

1372. Murphy, George E., Kuhn, Nobuko Obayashi, Christensen, Roger F., & Robins, Eli. (Washington U. School Medicine, St. Louis, Mo.) **"Life stress" in a normal population: A study of 101 women hospitalized for normal delivery.** *J. nerv. ment. Dis.*, 1962, 134(2), 150-161.—"One hundred and one postpartum women, unselected for psychiatric or other illness, were interviewed concerning the possible occurrence of 27 potentially stressful life experiences within the year prior to hospitalization for delivery. The group was composed of 34 white private patients, 25 white ward patients, five Negro private patients and 37 Negro ward patients. A total of 2.8 events of the kinds studied had occurred in the lives of these individuals within the one-year period. The range was from no events to eight. Eighty-nine per cent of the Ss reported at least one. A remarkable similarity was found in the frequency and kinds of experiences among the groups, despite the differences in the racial and sociologic composition of the groups. Some possible effects of pregnancy on the findings have been discussed."—N. H. Pronko.

1373. O'Connell, Desmond D., & Lundy, Richard M. (VA Hosp., Wood, Wis.) **Level of aspiration in hypertensive cardiac patients compared with nonhypertensive cardiac patients with arteriosclerotic heart disease.** *J. consult. Psychol.*, 1961, 25(4), 353-359.—"The hypertensive group 'arrange' for repeated failure by consistently setting excessively high goals." Level of aspiration was based on Minnesota Rate of Manipulation Test.—E. R. Oetting.

1374. Wiener, Gerald. (Johns Hopkins U.) **Psychologic correlates of premature birth: A review.** *J. nerv. ment. Dis.*, 1962, 134(2), 129-144.—An outline and summary of the results of the English and French literature on psychological correlates of premature births.—N. H. Pronko.

THERAPY & GUIDANCE

1375. Bachrach, Arthur J. (Ed.) **Experimental foundations of clinical psychology.** New York:

Basic Books, 1962. xii, 641 p. \$10.00.—Part I notes experimental tradition and clinical psychology (R. I. Watson), experimental bases of clinical judgment (W. A. Hunt & N. F. Jones), and personality assessment (I. A. Berg & H. E. Adams). Part II offers related discussions of learning theory (R. F. Hefferline), effects of infantile experience (S. Levine), operant techniques (M. Sidman), small group research (L. Petruccio), cognitive dissonance (L. Festinger & D. Brame), and perception (I. Goldiamond). Part III concerns psychophysiology, particularly emotional behavior (J. V. Brady), activation (R. B. Malmo), psychopharmacology (P. B. Dews), and the neuropsychology of Sigmund Freud (K. H. Pribram). Part IV cites experimental bases of psychotherapy, including noncontent interview research (J. D. Matarazzo), verbal conditioning (J. Greenspoon), reciprocal inhibition (J. Wolpe), and patient-doctor relations (H. H. Strupp). The introduction and an integrative concluding chapter are by A. J. Bachrach.—H. P. David.

1376. Bigelow, Newton, & Sainz, Anthony. (Marcy State Hosp., N. Y.) **Pitfalls in psychiatric research.** *Amer. J. Psychiat.*, 1962, 118(10), 889-896.—In the field of psychiatry, as in other fields, scientific investigations and experimentations may harbor errors in discovery, verification, and communication. Various controls that may be used to circumvent these errors are discussed.—N. H. Pronko.

1377. Brill, Norman Q. (Ed.) **Psychiatry in medicine.** Los Angeles, Calif.: Univer. Calif. Press, 1962. xvi, 195 p. \$3.95.—Greater awareness of psychosomatic relationships emphasizes a need for psychiatric training for general practitioners. 10 contributors offer guidance towards understanding and treatment of emotional disorders. Guidelines rather than specifics of diagnosis and treatment are stressed.—R. Tyson.

1378. Leigh, Denis. (Bethlem Royal & Maudsley Hosp., London, England) **The historical development of British psychiatry. Vol. 1. 18th and 19th centuries.** London, England: Pergamon, 1961. xiv, 277 p. \$10.00.—Written to present a picture of the growth of ideas in British psychiatry. In this volume of the trilogy the author deals with (a) the use of psychiatry as a specialist technique during the 18th century and (b) the results which flowed from this during the 1st ½ of the 19th century. The care and treatment of the mentally sick passed into secular hands, and it was from this that modern psychiatry developed. It is this development with which the book is concerned. The method of approach is biographical. (26 ref.)—S. B. Coslett.

1379. Swerdloff, Bluma. (Columbia U.) **The predictive value of the admissions interview: A search for the psychodynamic factors related to changes in the patient and his situation.** *Dissert. Abstr.*, 1961, 21(10), 3169.—Abstract.

MEDICAL THERAPIES

1380. deMuralt, G. (University Gynecological Hosp., Berne, Switzerland) **The prophylaxis of kernicterus.** *Develpm. Med. child Neurol.*, 1962, 4(2), 133-146.—Various causes of kernicterus and the effectiveness of different preventive treatments of the mothers are determined. "Kernicterus is en-

tirely preventable." (45-item bibliogr.)—*T. E. Newland.*

1381. **Kutner, Bernard, & Gordon, Gerald.** (Albert Einstein Coll. Medicine) **Seeking care for cancer.** *J. Hlth. hum. Behav.*, 1961, 2(3), 171-178.—The goal was to study the relationship of patient delay in seeking care for cancer, to the presence of a cancer danger signal. From the 808 Ss chosen by area probability sampling in New York City, 640 illness histories were obtained. The preliminary findings were (a) delay was most clearly associated with lack of education, (b) there was no sex difference in delay, and (c) there was a greater frequency of reported cancer symptoms among women than men.—*L. A. Ostlund.*

1382. **Porteus, S. D., & Diamond, A. L.** (U. Hawaii) **Porteus Maze changes after psycho-surgery.** *J. ment. Sci.*, 1962, 108, 53-58.—Decline in use of radical surgery for psychiatric symptoms has stopped investigation of loss of intellectual functions from such operations, and reassessment of the experimental literature now suggests that the assumption of transient loss only may be mistaken and that some gains to earlier levels of function following operation were partially practice effects in use of the function. Language is practiced even in old age and resists deterioration more than functions which are unpracticed. When maze tests were used with equivalent forms, loss seemed to persist—especially in the function (planning ability) tapped by the mazes.—*W. L. Wilkins.*

1383. **Yacorzynski, G. K., Atkinson, Arthur J., Cohen, Jerome, & Shuffelbarger, Forrest G.** (Northwestern U. Medical School) **Investigation of carbon dioxide therapy.** Springfield, Ill.: Charles C Thomas, 1962. 313 p. \$9.75.—A detailed, clinical-experimental investigation of carbon dioxide therapy is reported in relation to patients with ulcerative colitis and spastic colons. A comprehensive evaluation is included of the historical and procedural aspects of this type of treatment, with an analysis of results on psychological testing, psychiatric examination, and symptomatic comparative study. Psychotherapeutic considerations and the psychodynamics of this therapeutic modality are well treated.—*M. V. Kline.*

Drug Therapy

1384. **Glick, Burton S., & Margolis, Reuben.** (State U. New York, Medical Center, Brooklyn) **A study of the influence of experimental design on clinical outcome in drug research.** *Amer. J. Psychiat.*, 1962, 118(12), 1087-1096.—"The present paper consists of an appraisal of the research designs involved in 34 published papers dealing with the chlorpromazine treatment of chronic, hospitalized schizophrenics, in order to determine if the varying designs, with particular reference to "blind," placebo-controlled conditions, exerted any differential effect on ratings of clinical improvement." Among other findings there was a relationship between degree of "blindness" and percentage improvement, being lower for the double blind.—*N. H. Pronko.*

1385. **Hollister, Leo E., Degan, Roger O., & Schultz, S. Donald.** (VA Hosp., Palo Alto, Calif.) **An experimental approach to facilitation of psychotherapy by psychotomimetic drugs.** *J. ment. Sci.*, 1962, 108, 99-100.—4 patients treated with pla-

cebo or 2 doses of psilocybin were rated on a 25-item scale of desiderata of psychotherapeutic interviews. While no great change in total scores occurred, there was some greater tractability of patients under the drug; however, ability to focus on and talk about problems or gain insight seemed to decrease. 18 patients treated with 3 different drugs showed some selective changes enhancing introspection.—*W. L. Wilkins.*

1386. **Loranger, Armand W., & Prout, Curtis T.** (White Plains, N. Y.) **A controlled evaluation of deanol and benactyzine-meprobamate.** *New England J. Med.*, 1962, 266, 1073-1078.—The staff was informed that 60 depressed patients were to be treated with a new antidepressant drug, ST50. Actually, 20 patients received deanol (deaner), 20 received meprobamate combined with benactyzine (deprol), and 20 received a placebo. The 3 groups of patients were equated initially by sampling and statistical procedures. Changes in behavior were measured by rating devices completed by nurses, psychiatrists, and patients. During the 6 weeks of treatment the patients who received the drugs did not improve more than the patients who received the placebo.—*Author abstract.*

1387. **Muller, Bruce Paul.** (Columbia U.) **Personality correlates of the placebo reaction.** *Disser. Abstr.*, 1961, 21(12), 3855.—*Abstract.*

1388. **Nash, Harvey.** (Northwestern U. Medical School) **The double-blind procedure: Rationale and empirical evaluation.** *J. nerv. ment. Dis.*, 1962, 134(1), 34-47.—An attempt is made to resolve conflicting attitudes concerning the practicability and desirability of the double-blind procedure. A logical analysis is first made of this procedure followed by an illustration provided by a specific study. It is concluded that the double-blind technique has both potentialities and limitations and that its potentialities deserve further exploration.—*N. H. Pronko.*

1389. **Oswald, Ian.** (U. Edinburgh, Scotland) **Induction of illusory and hallucinatory voices with considerations of behavior therapy.** *J. ment. Sci.*, 1962, 108(453), 196-212.—7 patients undergoing aversion therapy, with drugs, were exposed to repetitive verbal stimulation by means of a loop of magnetic tape on which was recorded materials of personal significance to the patient and his symptoms. This technique induced misperception in some and frank hallucinosis in others, with transitory depersonalization and derealization also occurring.—*W. L. Wilkins.*

1390. **Pilkington, T. L.** (Cranage Hall Hosp., Cheshire, England) **A report on "tofranil" in mental deficiency.** *Amer. J. ment. Defic.*, 1962, 66(5), 729-732.—"Tofranil" was administered to 39 mentally defective patients of all ages with behavior disturbances. They were clinically divided into "affectives" and "nonaffectives." Over ½ of the former responded favorably. The symptoms of all the schizophrenics, mainly in the "nonaffective" group, became more obvious. It was felt that this may be a valuable diagnostic use of the drug.—*V. S. Sexton.*

1391. **Pincherle, M., & Morgante, R.** **Trattamento delle sindromi depressive con fenelzina (nardil).** [Treatment of depressive syndromes with nardil.] *Arch. Psicol. Neurol. Psychiat.*, 1962, 23(1), 45-59.—Treatment of 30 cases of depressive syn-

dromes with Nardil produced good or moderate results in $\frac{3}{4}$ of cases, without side-effects. This drug is particularly effective in conjunction with sedatives for treatment of depressed outpatients.—*L. L'Abate.*

1392. Raskin, Allen. (VA, Washington, D. C.) **A comparison of acceptors and resisters of drug treatment as an adjunct to psychotherapy.** *J. consult. Psychol.*, 1961, 25(4), 366.—On 40 personality, socioeconomic, and attitudinal variables, and on therapists' judgments after 8 weeks of treatment, resisters reluctance was not due to drug side effects but "apparently provided a convenient focal point for the hostile and aggressive impulses."—*E. R. Oetting.*

1393. Speranskii, G. N., & Pratushevich, YU. M. (Acad. Medical Sciences SSSR) **Blokada (farmakologicheskoe vyklyuchenie) retikulyarnoĭ formatsii mozgovogo stvola rebenka i ee prekraschenie kholodnyĭm vozdeĭstviem.** [Blocking (pharmacological exclusion) of the reticular formation of the brain stem and its restoration by a cold agent.] *Dokl. Akad. Nauk SSSR.*, 1961, 141(6), 1518-1521.—The authors observed that blocking of the adreno- and M-cholinoreactive systems of brain stem synapses by adenylytic propazin and cholinolytic amazil produced a general tranquilizing effect on children sufficient for minor operations such as tonsilectomy. However, major operation require too large doses if the drugs are administered separately. It was hypothesized that simultaneous blocking across both cholinergic and adrenergic structures in the synapses would produce a deeper tranquilizing effect with smaller doses. Simultaneous dosing with both the above drugs confirmed the hypothesis. It was further found possible to negate the effects of the drugs by application of ice to the face and head regions. EEG, PGR, and breathing rates served as indices of the effect of drugs.—*H. Pick.*

1394. Vestre, N. D. (U. Minnesota) **The effects of thorazine on learning and retention in schizophrenic patients.** *J. abnorm. soc. Psychol.*, 1961, 63(2), 432-435.—The effect of thorazine upon learning in schizophrenics was studied by the use of a word association task. The performance of patients receiving varying dosages of thorazine (from 100 to 800 mg/day) were compared with patients who were on placebo. Thorazine was seen to affect learning and retention negatively.—*G. Frank.*

1395. Winick, C. **The diffusion of an innovation among physicians in a large city.** *Sociometry*, 1961, 24, 384-396.—Approximately $\frac{1}{3}$ of the physicians in a city of over $\frac{3}{4}$ of a million people were personally interviewed regarding their interpersonal network and their knowledge and use of a new prescription drug. Unlike earlier studies sociometric choice did not appear to be an important determinant of new drug use. Speculations were advanced with respect to differences between small and large towns in the degree to which personal contacts are important correlates of drug innovations.—*H. P. Shelley.*

Shock Therapy

1396. Mandel, Nathan Gary. (U. Minnesota) **An evaluation of sociological, psychological, and physiological post-treatment adjustment of mental patients treated with regressive electric shock therapy.** *Dissert. Abstr.*, 1961, 21(12), 3874.—*Abstract.*

1397. Pollack, Max; Kahn, Robert L., Karp, Eric, & Fink, Max. (Hillside Hosp., Glen Oaks, N. Y.) **Tachistoscopic perception after induced altered brain function: Influence of mental set.** *J. nerv. ment. Dis.*, 1962, 134(5), 422-430.—"The present study examines the changes in the perception of pseudo-isochromatic figures associated with diffuse cerebral dysfunction induced by convulsive therapy. The observed changes in visual performance are related to 'mental set' and to electroencephalographic measures."—*N. H. Pronko.*

PSYCHOTHERAPY

1398. Ahmad, Farrukh Zahur. (Stanford U.) **Aspects of psychotherapy related to psychotherapists' responses to dependency.** *Dissert. Abstr.*, 1961, 21(11), 3519.—*Abstract.*

1399. Astigueta, Diego. (1143 5th Ave., NYC) **Psicoterapia psicoanaliticamente orientada.** [Psychoanalytically oriented psychotherapy.] *Acta neuropsiquiat. Argent.*, 1961, 7(4-5), 279-283.—Differences between psychoanalysis and analytically oriented therapy are discussed. The case of a patient presenting symptoms of hiccoughs and bronchial asthma is used as an illustration. The patient turned out to be psychotic, so that the technique consisted in lending the patient the therapist's ego as a psychological prosthesis. The pointing out of reality was essential in obtaining limited results after 2 years of therapy.—*W. W. Meissner.*

1400. Boyer, L. B. **Provisional evaluation of psycho-analysis with few parameters employed in the treatment of schizophrenia.** *Int. J. Psychoanal.*, 1961, 42(4-5), 389-403.—Reports on the successful treatment, by conventional psycho-analytical techniques, of 13 nonhospitalized patients who had been diagnosed schizophrenic.—*G. Elias.*

1401. Callieri, B., & D'Agostino, N. **Antropologia esistenziale e psicoanalisi di fronte al sentimento di colpa.** [Existential anthropology and psychoanalysis dealing with guilt feelings.] *Arch. Psicol. Neurol. Psichiat.*, 1962, 23(1), 17-18.—The wide range of possibilities encompassed by existential psychotherapy allows a more individualized approach to guilt feelings than psychoanalysis.—*L. L'Abate.*

1402. de Hojman, Raquel K., & Schust, Jaime P. **Grupos terapéuticos paralelos de hijos y madres.** [Parallel therapy groups for sons and mothers.] *Acta neuropsiquiat. Argent.*, 1961, 7(3), 186-188.—An attempt to organize a more integral therapy of the family group. The sick child is the sick representative of a family group. The mother is included in the therapeutic plan because she is the most accessible member of the family: it is usually the mother who brings the boy for treatment.—*W. W. Meissner.*

1403. Feibleman, James K. (Tulane U.) **The stressed conditioning of psychotics.** *J. Psychol.*, 1962, 53(2), 295-299.—An extension of existing techniques in the treatment of certain types of psychoses is proposed. The therapy will consist of 2 separate phases. In the 1st stage, the delusional system is extinguished by means of noxious stimulation accompanying the interviews. In the 2nd stage, a positive set of beliefs is instilled under the technique of stressed conditioning. Stressed conditioning is the

imposition of beliefs at a deep level of analysis carried out under stress.—*Author abstract.*

1404. Garfinkel, Elisa. (U. Nacional, Buenos Aires) *Técnicas psicoterápicas utilizadas en el tratamiento de las psicosis infantiles.* [Psychotherapeutic techniques utilized in the treatment of infantile psychoses.] *Acta neuropsiquiat. Argent.*, 1961, 7(3), 199-201.—Newer techniques tend to suppress morbid symptoms and improve the child's interpersonal relations, but this is not a simple transposition of the approaches developed with adults. The child's experience grows out of a constant interplay between his own world of fantasy and the adult world of reality. The use of symbolic realization, identification, dramatization, and direct interpretation in dealing with psychotic children is discussed.—*W. W. Meissner.*

1405. Gendlin, E. T. (U. Wisconsin) *Need for a new type of concept: Current trends and needs in psychotherapy research on schizophrenia.* *Rev. existent. Psychol. Psychiat.*, 1962, 2(1), 37-46.—". . . some of us are coming to consider the central aspects of psychotherapy as implicit, sensed and felt experiencing, and personal interaction. . . . We are tending toward . . . the kind of theory and . . . research variables which will give us a science of the concrete experiencing of interacting organisms, in terms of differentiated and defined measurements of observable variables."—*J. Lyons.*

1406. Hollender, M. H. *Prostitution, the body, and human relatedness.* *Int. J. Psycho-Anal.*, 1961, 42(4-5), 404-413.—Recounts bits from the psychoanalyses of 2 patients, both of whom had used prostitution to avoid personal relationships and to achieve a false sense of adult femininity.—*G. Elias.*

1407. Horney, Karen. (Ed.) *Are you considering psychoanalysis?* New York: Norton, 1962. vi, 257 p. \$1.65 (paper).—A paperback edition of the original 1946 publication.—*J. W. Thompson.*

1408. Langen, D. *Langfristige psychotherapie in sozial tragbarer form.* [Long-term therapy in a socially acceptable form.] *Acta psychother. psychosom.*, Basel, 1961, 9(6), 401-409.—The weekly therapeutic session with the physician plus the meeting of patients in a social club, provides the basis for time-saving procedures in lengthy therapy.—*G. Rubin-Rabson.*

1409. Lebedinskii, M. S. *Ocherki psikhoterapii.* [Essays in psychotherapy.] Moscow, USSR: Medgiz, 1959. 351 p.—The author develops a theoretical and practical text on psychotherapy based on Pavlovian principles, especially those associated with the 2nd signal system and the hypnotic state. He specifically considers psychotherapy in the waking and hypnotic states and work as a psychotherapeutic measure.—*I. D. London.*

1410. Lomas, P. *Observations on the psychotherapy of puerperal breakdown.* *Brit. J. med. Psychol.*, 1961, 34, 245-253.—2 cases illustrate the application of inpatient treatment focused on the mother-baby relationship.—*C. L. Winder.*

1411. Menninger, Karl Augustus. *Theory of psychoanalytic technique.* New York: Basic Books, 1961. 206 p. \$1.65.—First published in 1958 (see 33: 1214), this is a paperback edition.—*E. Y. Beeman.*

1412. O'Connell, Walter E. *Identification and curability of the mental hospital patient.* *J. indiv. Psychol.*, 1962, 18(1), 68-76.—"Psychotherapy with hospitalized schizophrenic patients has been tethered by treating it as the medical man's domain exclusively, by the tacit incorporation of psychoanalysis frames of thought, and by assuming the incurability of schizophrenia." Needed are more active approaches that aid the growth of humanistic identification in patients. An example is offered.—*A. R. Howard.*

1413. Primrose, E. J. R. *Psychological illness: A community study.* Springfield, Ill.: Charles C Thomas, 1962. vii, 60 p. \$3.50.—The theme of this monograph is that the treatment of neuroses can be the responsibility of the general practitioner who should be suitably trained for the purpose. The author, a general practitioner himself, describes his experiences in serving a small, relatively isolated community in northern Scotland. Over a one-year period, he studied the incidence of mental disorder in his practice and related it to the socio-economic conditions of the people and to their attitudes and values. Preventive aspects and the role of the family doctor in training disturbed human relationships of psychogenic origin are delineated.—*H. Feifel.*

1414. Wollstein, S., & Hoek, A. (University & Hadassah Hosp., Jerusalem) *Psikhoterapia bezugot.* [Psychotherapy of couples.] *Harefuah*, 1962, 62, 288-291.—Psychotherapy of married couples carried out once a week in a psychiatric outpatient department is described. In each case at least one of the couple needed psychiatric treatment; in most cases sessions in the presence of husband and wife with both of the authors gave satisfactory results. The therapy was psychoanalytically oriented. (English & French summaries)—*H. Ormian.*

Therapeutic Process

1415. Frighi, L., & Tolentino, I. (U. Rome) *Réalisation de l'ideal du moi en tant que but de la psychotherapie.* [Realization of the ideal-ego as an objective of psychotherapy.] *Acta neurol. psychiat. Belg.*, 1961, 61(10), 879-892.—During psychotherapy, the authors found it necessary to center the analysis on the confluence of libidinal assets into the ideal-ego rather than on the conflict between instinctual urges and super-ego. In most instances, they had to dig out from the unconscious and mould a new ideal-ego, from an inhibited and inadequate one. The authors acknowledge the obstacles to such psychotherapeutic orientation, but they think that in order to restore certain psychical patterns and models, this type of "pseudosublimation" is useful and advisable in several cases.—*V. Sanua.*

1416. Howe, Edmund S., & Pope, Benjamin. (U. Maryland School Medicine) *The dimensionality of ratings of therapist verbal responses.* *J. consult. Psychol.*, 1961, 25(4), 296-303.—35 psychiatrists rated 10 therapists' responses on a 40-scale semantic differential. Factor analysis shows 3 factors. Ratings on an evaluation dimension and on a dimension of precision and potency (ambiguity) are independent.—*E. R. Oetting.*

1417. Karen, Edward S., & Bertram, P. *Techniques of primitive witchcraft in modern psychotherapy.* *Acta psychother. psychosom.*, Basel, 1961, 9(6), 393-400.—Many problems are unresponsive to

conventional techniques. The techniques of primitive witch doctors can in specific cases prove effective for therapeutic transference.—G. Rubin-Rabson.

1418. Koestenbaum, Peter. (San Jose State Coll.) **The sense of subjectivity.** *Rev. existent. Psychol. Psychiat.*, 1962, 2(1), 47-64.—"Psychological and therapeutic aspects of the sense of subjectivity" are emphasized in a discussion of this central area of "the experience of feeling human"; its relevance to questions of value; and its significance for decision, will, and "the protean traits of experience." The sense of subjectivity, or the "ineffable sense that I am I," exists on various levels of experience—as identification with the body, with the psychological self, and with the transcendental ego. It is a fundamental condition for meaningful activity and may be considered as a major goal in psychotherapy.—J. Lyons.

1419. Laffal, J. (VA Hosp., West Haven, Conn.) **Changes in the language of a schizophrenic patient during psychotherapy.** *J. abnorm. soc. Psychol.*, 1961, 63(2), 422-427.—A method of linguistic analysis (Bousfield et al, 1958) is applied to the speech of a schizophrenic patient to demonstrate the changes that have occurred in the course of psychotherapy. The analysis showed that as the patient's behavior became less disorganized, so did his speech; however, the content of his speech revealed constriction of ideation.—G. Frank.

1420. Medini, Gid'on. (Mental Health Clinic, Ramat Hen) **Haavara negdit: Temura bagisha.** [Countertransference: Change in approach.] *Dap. refuim*, 1961, 20, 481-488.—The concept of countertransference in psychoanalysis and psychotherapy is explained. Some theoretical and practical problems concerning the therapist's role as a "mirror" are discussed. This recent feature of psychopathology is connected with the moving of interest from stressing the patient's psychopathology to studying the interpersonal therapist-patient relationship. Use of countertransference in therapeutic exchanges is illustrated. (English & French summaries)—H. Ormian.

1421. Michal-Smith, Harold. (New York Medical Coll.) **Psychological factors in the therapist-patient relationship in the rehabilitation process.** *Rehabilit. Lit.*, 1962, 23(3), 66-69.—Physical handicaps often result in a variety of emotional problems. General effects are: (a) the disability has both social and emotional effects, (b) psychological gains arise as compensations for the handicap, (c) handicapped persons constitute emotional problems to others, (d) therapists may possess problems which enter into the relationship. The primary problem of anxiety causes a number of defense mechanisms. Most common are denial and transference. Recognition and acceptance of the anxiety which results from a handicap will increase ego-strength and allow growth within the rehabilitative process.—W. D. Kerr.

1422. Moser, Ulrich. **Übertragungsprobleme in der Psychoanalyse eines chronisch schweigenden Charakterneurotikers.** [Transference problems in the psychoanalysis of a chronically silent character neurotic.] *Psyche, Stuttgart*, 1962, 15, 592-624.—The patient's silence has a double meaning; it is defensive and at the same time a preverbal expression of primary identification. Problems of silence in psychoanalysis are illustrated by problems in the treat-

ment of a long term case, together with a review of the pertinent literature. (41 ref.)—E. W. Eng.

1423. Papanek, Helene. **Expression of hostility: Its value in the psychotherapy group.** *J. indiv. Psychol.*, 1962, 18(1), 62-67.—Merely to experience release is insufficient reason for expressing hostility. To be therapeutic, such expression must result in a learning experience and help to strengthen one's social feeling. One should focus on learning to express and to experience himself "in new positive ways."—A. R. Howard.

1424. Percy, Walker. **The symbolic structure of interpersonal process.** *Psychiatry*, 1961, 24(1), 39-52.—The deep ambiguity in the concept "participant observation" is traced to an equivocation of behavioral terms applied to generically different communication events. The behavioristic theory of meaning is questioned as incoherent, the generic structure of symbolic behavior is outlined, and the symbolic structure of a therapist-patient communication event is examined.—C. T. Bever.

1425. Ruesch, Jurgen. **Therapeutic communication.** New York: Norton, 1961. xv, 480 p. \$6.50.—"... therapeutic communication remains a mixture of observable facts, reportable experiences, and non-reportable emotions. Art, craft, and science are combined to help the individual maintain his own identity and sanity against the pressures of mass communication and the collective state. . . . [It] is a skill practiced by professionals in order to help people overcome temporary stress, to get along with other people, to adjust to the unalterable, and to overcome psychological blocks which stand in the path of self-realization." The book is organized into 7 parts. These are: "The Framework," "The Recognition of Disturbed Communicative Behavior," "The Doctor's Therapeutic Operations," "Long-Term Therapeutic Goals," "Therapy with the Disturbed Individual," "The Disturbed Individual and his Surroundings," and "Summary." (400 ref.)—C. J. Adkins.

1426. Schrader, George A. (Yale U.) **Interpersonal communication.** *Rev. existent. Psychol. Psychiat.*, 1962, 2(1), 65-74.—Given 2 models, subject and object, in which persons appear to themselves and to others, how can the modes be integrated in interpersonal communication? In the special case of the therapy situation, the issue is solved by orthodox analysis through a successful "de-personalization" of both participants, each coming to apprehend himself and the other in relatively objective fashion. As an alternative to this "unsatisfactory" cure, existential analysis recognizes and exploits the necessarily "complex dialectic" which underlies all human relations: that each person must always be both a role-playing "object" and an individual "subject." The solution is applicable to human communication in general.—J. Lyons.

1427. Wijsenbeck, Henricus. (Gehah Psychiatric Hosp., Petah Tikva) **Al hayahas hahadadi ben hole verofe.** [Patient-physician relationship.] *Harefuah*, 1961, 61, 307-309.—Besides the conscious relationship between physician and patient (to cure and to be cured) there is an unconscious factor. This part of the relationship (based on emotional experiences of both of them) is very important in each therapeutic situation. Therefore psychological knowledge must be a basic part of every kind of medical

training. This part of training has to be given by psychiatry departments. (English & French summaries)—*H. Ormian.*

Group Therapy

1428. Cummings, S. T., & Stock, Dorothy. (U. Chicago) Brief group therapy of mothers of retarded children outside of the specialty clinic setting. *Amer. J. ment. Defic.*, 1962, 66(5), 739-748.—Results are described of a program of brief group therapy for mothers of retarded children.—*V. S. Sexton.*

1429. Goldenberg de Antin, Luisa R. La psicoterapia colectiva racional como forma de tratamiento en los adolescentes. [Rational group psychotherapy as a form of treatment for adolescents.] *Acta neuropsychiat. Argent.*, 1961, 7(3), 204-206.—A method of group therapy is described which aims at gradually replacing elements of magical thinking by logical thinking. Its success with groups of 10-12 adolescents is discussed: it satisfies their need to communicate with others of their own age group and to separate from the family, replaces infantile with adult values, etc.—*W. W. Meissner.*

1430. Harris, Pearl, & Trotta, Frank. (Philadelphia General Hosp.) An experiment with under-achievers. *Education*, 1962, 82, 347-349.—A modified form of group therapy was undertaken in an experiment with 32 pre-adolescents. The progress of the group was reported, findings summarized, and the project evaluated. 4 students improved in their grades, 2 showed minor improvement, and 2 showed no improvement.—*S. M. Amatora.*

1431. Heckel, R. V., Froelich, R. E., & Salzberg, H. C. (VA Hosp., Augusta, Ga.) Interaction and redirection in group therapy. *Psychol. Rep.*, 1962, 10(1), 14.—Patient interactions in group therapy sessions correlated—.77 with total therapist responses and .70 with proportion of therapist redirection responses.—*B. J. House.*

1432. Kraak, Bernhard. (Ringelbachstr. 200, Reutlingen, Germany) Nichtdirektive Gruppentherapie mit Heimkindern. [Nondirective group therapy with institutionalized children.] *Z. exp. angew. Psychol.*, 1961, 8(4), 595-622.—20 children in an institution for mentally retarded children were treated in 4 groups for 6 months with nondirective psychotherapy. Compared to a matched control group, the mental and emotional development of the children was significantly improved at the end of the therapeutic period.—*W. J. Koppitz.*

1433. Locke, Norman. Group psychoanalysis: Theory and technique. New York: New York Univ. Press, 1961. ii, 253 p. \$6.50.—Though concerned with theory and technique, more space is given to the therapeutic process in action. The chapter devoted to the patient in the group leads to topics such as transference, identification, projecting dreams, fantasy, and free association. Next, there are sections for terminating the process and the selection of patients and composition of groups. A 79-page transcription and analysis of an average session is included. Differences in group dynamics and group psychoanalysis are stressed. Though the focus is on the individual who is being treated, there are many examples of simultaneous insights and beneficial inter-

action of group members. (33-item bibliogr.)—*L. A. Ostlund.*

1434. Mullan, Hugh, & Rosenbaum, Max. (New York Alcoholism Vocational Rehabilitation Project) Group psychotherapy: Theory and practice. New York: Free Press Glencoe, 1962. xvi, 360 p. \$5.95.—"Group psychotherapy is significantly different from individual therapy. . . . The self-centeredness of individual therapy without sufficient checks is done away with as group members are called upon to help and to be helped." The authors discuss: the evolution of group therapy; underlying concepts; the impact upon contemporary thought; and the therapeutic process (screening and preparing patients, overcoming resistance, organizing and administering the group, transference, countertransference, extra-therapeutic contact, crisis, and termination of contact). They describe the need for specific training of group therapists and the aims and methods of such training. Comprehensive glossary. 91-item reading list for trainees. (354 ref.)—*C. H. Miley.*

1435. Rosenberg, Israel Henry. (New York U.) An experimental investigation of some effects on stutterers of pacatal-aided group psychotherapy: A comparison of the effects on male adult stutterers of group psychotherapy with and without the tranquilizer pacatal as an adjuvant. *Dissert. Abstr.*, 1961, 21(10), 3168.—*Abstract.*

1436. Rosenthal, L., & Schamess, G. (Jewish Board Guardians) The group psychotherapy literature 1961. *Int. J. group Psychother.*, 1962, 12(2), 240-259.—155 published reports dealing with a variety of aspects of group psychotherapy are summarized.—*M. H. Lewin.*

Special Therapies

1437. Ellis, Albert. (333 W. 56th St., NYC) Reason and emotion in psychotherapy. New York: Lyle Stuart, 1962. 442 p. \$10.00.—Integrating both previously published and new material, "the pages of this book . . . outline the theory of rational-emotive psychotherapy . . . [and] present the clinician with some of the main clinical applications." Included are papers on: the origin, principles, theoretical considerations, objections to, and limitations of rational-emotive psychotherapy; comparisons with other forms of treatment; and its individual and group use with a variety of clinical and marital problems. (17-p. bibliogr.)—*H. P. David.*

1438. Frankl, Victor E. Basic concepts of logotherapy. *Confin. psychiat.*, Basel, 1961, 4, 99-109.—Logotherapy emphasizes man's will to meaning, as contrasted with the Freudian emphasis on the will to pleasure and the Adlerian emphasis on the will to power. As long as the individual seeks meaning he practices a freedom that rises above the various kinds of determinisms; viz., a social factor like the breakup of tradition or a theoretical notion like "psychic mechanism."—*E. W. Eng.*

1439. Ginott, Haim G., & Lebo, Dell. (Child Guidance Clinic, Jacksonville, Fla.) Play therapy limits and theoretical orientation. *J. consult. Psychol.*, 1961, 25(4), 337-340.—A questionnaire on limits was related to 227 play therapists' identification of themselves as nondirective, psychoanalytic, or "other." Groups differed on 14 situations but no

consistent pattern is apparent. Orientations did not differ and all used many limits.—*E. R. Oetting.*

1440. Lazarus, A. A. (U. Witwatersrand Medical School, South Africa) Group therapy of phobic disorders by systematic desensitization. *J. abnorm. soc. Psychol.*, 1961, 63(3), 504-510.—Phobic patients were placed in groups receiving either insight or desensitization (Wolpe, 1958) therapy. In approximately 20 sessions, 13 of 18 Ss treated by Wolpe's method were able to tolerate the fantasy of their phobic situation as well as to live through the experience outside of therapy without experiencing anxiety. Only 2 patients were symptom free in a comparable number of hours of insight-oriented group therapy. The 15 non-symptom-free Ss in the latter group were then placed in desensitization groups: 10 improved in 10 sessions. The implication of the results were discussed.—*G. Frank.*

1441. Levinson, Boris M. (Yeshiva U.) The dog as a "co-therapist." *Ment. Hyg., N. Y.*, 1962, 46, 59-65.—A description of the use of a dog as a catalytic agent helping children to deal with their problems. The author states that "the creation of a well-trained Canine Counseling Corps for Children might elicit snickers and sneers and charges of 'fantasying.' Nevertheless, a dog corps served this country heroically in the performance of military tasks in World War II. Why not as psychotherapeutic aides?"—*M. H. Lewin.*

1442. Messinger, S. L., Sampson, H., & Towne, R. D. (Bay Area Health Study) Life as theater: Some notes on the dramaturgic approach to social reality. *Sociometry*, 1962, 25(1), 98-110.—Questions are raised about the "dramaturgic approach" to social experience. The actor's perspective in everyday life is examined. "... we shall describe a perspective on the world and the self within it, a perspective that rends life a kind of 'theater' in which a 'show' is 'staged' . . . to show the incompatibility of this perspective with the view that persons in everyday life seem to consider 'natural,' we shall present some observations by and about mental patients taken from a recently completed study. . . . the perspective of persons who are 'on' is akin or identical to the view seemingly attributed by the dramaturgist analyst to his subjects, that is, to persons plying their routine rounds of daily activities."—*H. P. Shelley.*

1443. Pikler, Andrew G. Music as an aid in psychotherapy. *Acta psychol., Amsterdam*, 1961, 18(5), 317-331.—Musical exposure as a restoring vector could be tailored to various situations in psychodynamics to exploit its potential in evoking semantic-associative responses. A musical equivalent for conflict and catharsis is needed for the individual case. A reactivity test preceding music therapy is feasible.—*G. Rubin-Rabson.*

1444. Rogers, Carl, & Kinget, G. Marian. (U. Wisconsin) *Psychothérapie et relations humaines: Théorie et pratique de la thérapie nondirective*. [Psychotherapy and human relations: Theory and practice of nondirective therapy.] Louvain, Belgium: Publications Universitaires, 1962. 320 p. Belg. Fr. 240.—This, the 1st of 2 volumes, is itself divided into 2 parts. Part I, by Kinget, introduces Rogerian therapy as a viewpoint about human relations. Part II, "Theory and Research" by Rogers, begins with

an account of the development of his therapeutic conceptions and of the early research relative to them. 1 chapter is devoted to a summary of research completed and in progress. To the extent that the necessary and sufficient conditions for therapy are discovered by research, controversy about dogma will decline. (121-item bibliogr.)—*S. S. Marzolf.*

1445. Schneider, Erwin H. (Ed.) Music therapy 1960. Vol. 10. Lawrence, Kans.: Allen, 1961. xiv, 234 p. \$5.20.—This 10th book of proceedings of the National Association for Music Therapy, Inc., covers the following areas of music therapy: current viewpoints, the education and functions of the music therapist, psychiatric hospitals, individual therapy, exceptional children, research, and association growth. The appendix provides valuable references, since it contains the cumulative index from the issues of 1956-59 inclusive, the tables of contents for all issues from 1951-59 inclusive, and membership rules, the revised constitution, and bylaws. There is a listing of all officers, their affiliation and address, and all committees, and their members. (29-item bibliogr.)—*L. A. Ostlund.*

1446. Ungersma, A. J. (San Francisco Theological Seminary) The search for meaning. Philadelphia, Pa.: Westminster, 1961. 188 p. \$4.75.—The author, clinical psychologist and professor in a theological school, worked 1 year with Viktor E. Frankl. This compact book is the result of the influence of Frankl's concepts of existential analysis or logotherapy. According to this view, man is considered a free, responsible agent who chooses his future. The emphasis in logotherapy is the individual's search for "meaning" in his life. This implies a system of higher values. This search is a deep, satisfying experience with spiritual qualities. In this book the principles of logotherapy are integrated with the goals in pastoral counseling and psychotherapy. While Christian and Judaic philosophies are woven with present-day concepts of psychotherapy as represented by the various schools, the author especially culls philosophy, theory, and techniques that parallel and support logotherapy.—*C. A. Curran.*

1447. Van Den Berg, J. H. (U. Leiden, Holland) An existential explanation of the guided daydream in psychotherapy. *Rev. exist. Psychol. Psychiat.*, 1962, 2(1), 5-35.—A method of psychotherapy, originated by Robert Desoille and termed *rêve éveillé dirigé* (guided daydream), is described as to historical development and current techniques, and then illustrated with excerpts from 2 of the author's cases. It presupposes an existential theory of neuroses which bears interesting relationships to conventional approaches such as psychoanalysis. Indications and contra-indications for its use are offered, based upon the author's successful use of the method over a period of 15 years.—*J. Lyons.*

HYPNOSIS

1448. As, A., O'Hara, J. W., & Munger, M. P. The measurement of subjective experiences presumably related to hypnotic susceptibility. *Scand. J. Psychol.*, 1962, 3(1), 47-64.—An instrument to register a variety of subjective experiences presumably related to hypnotizability was constructed on the basis of certain theoretical notions of hypnosis. A comparison of the responses of 471 college students

with the findings of another investigator shows a high degree of response consistency. Some sex differences are discussed. A cluster analysis and a factor analysis of a representative selection of Experience Inventory items and item groups indicate that existing theoretical notions of hypnosis have much in common and may be reduced to a set of very few variables.—*Journal abstract.*

1449. Clernes, Stanley Ronald. (Stanford U.) Repression and hypnotic amnesia. *Dissert. Abstr.*, 1961, 21(11), 3522.—*Abstract.*

1450. Halpern, Seymour. (Central Islip State Hosp., N. Y.) Hypno introspection: A contribution to the theory and practice of hypotherapy: I. Method. *J. Psychol.*, 1962, 53(2), 383-385.—Hypno-introspection is a nonmanipulative approach to hypnotherapy which has been successful in eliminating much of the resistance ordinarily encountered during hypnotic induction. Resistance is obviated by minimizing the patient's fears concerning loss of control. As therapy progresses, the induction of a variety of hypnotic alterations of ego functioning becomes possible. The result has been an extension of the applicability of hypnosis to a wider range of clinical problems.—*Author abstract.*

1451. Halpern, Seymour, & White, Leonard. (Central Islip, N. Y.) Experimental hypnotherapy with a cancer patient. *J. Amer. Soc. Psychosom. Dent. Med.*, 1962, 9(1), 7.—Case report.—J. H. Manhold, Jr.

1452. Heilizer, F. (VA Hosp., Brockton, Mass.) Relations between anxiety and hypnotizability. *Amer. J. clin. Hypn.*, 1961, 4(1), 30-35.—The anxiety concept and the effects of personal anxiety and situational anxiety upon hypnotizability are discussed. It is concluded that no final conclusions are warranted but that there are several interesting possibilities.—M. V. Kline.

1453. Langen, D. Hypnose: Archaische Ekstase und Versenkung. [Hypnosis: Archaic ecstasy and trance.] *Confin. psychiat. Basel.*, 1961, 4(3-4), 228-243.—"The westerner, so often concerned with an analytic approach to the psychic, too easily overlooks the significance of prolonged meditative practice. In the various Asiatic techniques of mediation there are valuable suggestions." Comparisons are drawn between Schultz's "autogenous training" and such techniques.—E. W. Eng.

1454. Levitt, Eugene E., & Lubin, Bernard. (Indiana U.) The effect of incentives on volunteering for an hypnosis experiment. *Int. J. clin. exp. Hypn.*, 1962, 10(1), 39-41.—The data indicated that neither education about hypnosis nor payment for participating in an experiment are likely to bias a student volunteer group for an hypnotic experiment.—C. S. Moss.

1455. London, Perry; Cooper, Leslie M., & Johnson, Harold J. (U. Illinois) Subject characteristics in hypnosis research. *Int. J. clin. exp. Hypn.*, 1962, 10(1), 13-21.—Items of experiences, interests, and attitudes, in London's Survey, tended to cluster among themselves, suggesting a separate factor for each. The items were compared to several objective tests, but correlations were low. The Survey and Shor's Personal Experiences Questionnaire combined, correlated .64 with Stanford Scale A, suggesting the possible development of a paper-and-

pencil predictor of hypnotic suggestability.—C. S. Moss.

1456. McCord, H., & Sherrill, C. I. (U. Colorado, Denver Extension Center) A note on increased ability to do calculus posthypnotically. *Amer. J. clin. Hypn.*, 1961, 4, 124.—In light of the results of this brief investigation, further research points toward determining possible ways hypnosis might be used to upgrade human intellectual functioning.—M. V. Kline.

1457. Meares, A. (45 Spring St., Melbourne, Australia) An evaluation of the dangers of medical hypnosis. *Amer. J. clin. Hypn.*, 1961, 4, 90-97.—The induction of hypnosis by an unskilled person can represent a real danger to the S, but the dangers to the patient in the hands of an adequately trained physician are very small indeed. Because the dangers are definite and clearly formulated, adequate training in this respect should not be unduly difficult.—M. V. Kline.

1458. Montserrat-Estève, S. L'hypnose pendant les cinq dernières années. [Hypnosis during the last five years: 1955-60.] *Acta psychother. psychosom.*, Basel, 1961, 9(6), 429-462.—The last 5 years have seen considerable strides in hypnosis, especially on the American continent, into various areas such as research and therapy. (500-item bibliogr.)—G. Rubin-Rabson.

1459. Orne, Martin T. (Harvard U.) Hypnotically induced hallucinations. In Louis West (Ed.), *Hallucinations* (see 37: 1588). Pp. 211-219.—A brief discussion of the nature of hypnosis. The alternative ways a hypnotized S will respond to a suggestion to hallucinate, in comparison to a faking S are described.—J. B. Thompson.

1460. Orne, Martin T. (Massachusetts Mental Health Center, Boston) Implications for psychotherapy derived from current research on the nature of hypnosis. *Amer. J. Psychiat.*, 1962, 118, 1097-1103.—Some hypotheses derived from research in hypnosis are discussed as they apply to psychotherapy. A program that may be submitted to experimental attack is suggested.—N. H. Pronko.

1461. Rudlová, B., & Rudlová, L. (Neurologická Klinika, Prague) Hypnoza v neurologii. [Hypnosis in neurology.] *Ceskoslov. Psychol.*, 1961, 5, 251-254.—Experience with using hypnosis in neurology is described in differential diagnosis, in supplementing anamnesis, in the therapy of sensory and motor difficulties, in protracted sleep, or in the treatment of sleeplessness. (Russian & English summaries)—V. Břicháček.

1462. Schneck, Jerome M. (New York Downstate Medical Cent.) Hypnoanalysis. *Int. J. clin. exp. Hypn.*, 1962, 10(1), 1-12.—A frankly personal resume of hypnoanalysis by a highly experienced psychiatrist, constituting a brief survey of his many publications.—C. S. Moss.

1463. Shaw, S. Irwin. (Detroit, Mich.) A competent approach to the treatment of gagging, tic douloureux, and bruxism with the use of hypnosis. *J. Amer. Soc. Psychosom. Dent. Med.*, 1962, 9(1), 13.—The use of hypnosis and nondirective counseling technique for treatment.—J. H. Manhold, Jr.

1464. Shor, Ronald E. (Harvard U.) Three dimensions of hypnotic depth. *Int. J. clin. exp.*

Hypn., 1962, 10(1), 23-38.—The writer extends his earlier presentation of a dual-factor theory of hypnosis to include archaic involvement. Although interactions occur among these factors, the depth of each may vary independently. The theory is properly seen as a synthesis and elaboration of many prior theories of hypnosis.—C. S. Moss.

1465. Svorad, D., & Hoskovec, J. (Czechoslovak Acad. Sciences, Prague, Czechoslovakia) **Experimental and clinical study of hypnosis in the Soviet Union and the European Socialist countries: Bibliography.** *Amer. J. clin. Hypn.*, 1961, 4(1), 36-46.—Contains papers on human and animal hypnosis published over an approximate period of the last 40 years. Most of the references consist of papers published during the last 10 years.—M. V. Kline.

1466. Verson, R. D. (Apt. 6676, Caracas, Venezuela) **Technique to control hallucinatory obsessive ideas.** *Amer. J. clin. Hypn.*, 1961, 4, 115-116.—In this clinical case, the S's realization of his control of hallucination and the authority of the child's father were utilized. The child was allowed to direct and to manipulate purposively and pleasurably the father's protective strength and authority.—M. V. Kline.

1467. Weitzenhoffer, A. M. (Stanford U.) **Some speculations regarding the nature and character of hypnotic behavior.** *Amer. J. clin. Hypn.*, 1961, 4, 69-89.—Hypnotic behavior is to be distinguished from other trance behavior in terms of being controlled from within the individual. Hypnotic behavior appears to be multidimensional, having at least a dimension of participation and a dimension of involvement, and probably one of commitment.—M. V. Kline.

DREAMS

1468. Hawkins, David R., Puryear, Herbert B., Wallace, Charles D., Deal, William B., & Thomas, Edwin S. **Basal skin resistance during sleep and "dreaming."** *Science*, 1962, 135(3513), 321-322.—Basal skin resistance was measured continuously in sleeping human Ss. Instead of a hypothesized fall in basal skin resistance during periods of "dreaming" or emergent State 1 electroencephalographic activity, there was a rise which generally coincided with the "dreaming" period. This finding, along with other recent studies, indicates that this state of sleep is not just a light stage of sleep but is unique neurophysiologically.—*Journal abstract.*

1469. Howarth, E. (U. Alberta) **Extroversion and dream symbolism: An empirical study.** *Psychol. Rep.*, 1962, 10(1), 211-214.—"Assessment of dream samples by rating failed to reveal an association between either extroversion or neuroticism and symbolic content of the dreams. Thus there is no evidence in this study for the view that extroverts have extrovert dreams, nor did extroverts reveal less (or more) symbolic dream content. Several relationships were found between personality dimensions and answers to a dream questionnaire."—B. J. House.

1470. Pegge, C. Denis. (Oxford U., England) **The mode of the dream.** *J. ment. Sci.*, 1962, 108, 26-36.—Analysis of dreams without regard to content, as illustrated by 3 dreams of the author's, suggests that items of dream consciousness consist either of imageless awareness or of the experiencing of imagery, or both of these components simultaneously.

As imagery of these dreams is primarily visual, the simulation of visual dreams might be accomplished by a film medium.—W. L. Wilkins.

1471. Ullman, Montague. **Dreaming, life style, and physiology: A comment on Adler's view of the dream.** *J. indiv. Psychol.*, 1962, 18(1), 18-25.—Briefly presents a theory of dream consciousness which integrates some recent physiological findings and explores some Adlerian notions within that context.—A. R. Howard.

1472. Whitman, Roy M., Pierce, Chester M., Maas, James W., & Baldridge, Bill J. (U. Cincinnati Coll. Medicine) **The dreams of the experimental subject.** *J. nerv. ment. Dis.*, 1962, 134(5), 431-439.—"Examination of the dreams of ten experimental volunteer subjects revealed a great deal of anxiety related to the experimenter, the experimental room and equipment, their own behavior and the conditions of their volunteering. Of 111 dreams dreamt over 40 nights, approximately one-third dealt with the experiment obviously, one-third dealt with in a disguised way, and one-third related to other material. In this situation, where one or two male experimenters monitored EEG and eye-movement tracings in a room adjacent to the sleeping subjects, male volunteers dreamt largely of castration anxiety, and female volunteers dreamt largely of sexual exploitation. There was a striking contrast between their overt cooperativeness and the amount of anxiety manifested in the dreams."—N. H. Pronko.

CASE HISTORIES

1473. Barker, J. C. (Harrison Hosp., Dorchester, England) **The syndrome of hospital addiction (Munchausen syndrome).** *J. ment. Sci.*, 1962, 108 (453), 167-182.—7 cases are reviewed in detail to illustrate motivations and possible administrative management, including longterm psychiatric hospitalization. One case had, between 1935 and 1958, 128 hospital admissions and outpatient attendances, 13 abdominal operations, a chiasmal exploration, a standard prefrontal leucotomy, and was certified as psychiatrically ill 6 times. (28 ref.)—W. L. Wilkins.

1474. Bobon, J. **De l'angoisse au jeu verbal: Un cas de glossomanie post-traumatique.** [From anxiety to verbal play: A case of glossomania following a trauma.] *Acta neurol. psychiat. Belg.*, 1961, 61, 793-816.—The Walloon language (native to the town of Liège) has influenced the pseudolanguage (with a general French pattern) of a 41-year-old patient who became confused after a fight in which he sustained a double leg fracture. The dialect from childhood temporarily stirred up and released from the sick mind transforms the verbal expression. At the peak of the psychic disorder the patient uses an old process common in the normal evolution of a living language: the proper derivation, by suffixation. From a psychopathological point of view this pseudo-language with a playful aspect seems to be, on the verbal ground, a childish form of compensation to anxiety as in megalomaniac delusions.—V. Sanua.

1475. Bookbinder, L. J. (VA Hosp., Ann Arbor, Mich.) **Simple conditioning versus the dynamic approach to symptoms and symptom substitution: A reply to Yates.** *Psychol. Rep.*, 1962, 10(1), 71-77.—The controversy over symptom substitution is attributed to lack of agreement about the definition of

symptom. 2 case histories are reported as illustrations of symptom substitution. "It is suggested that the polemic as to whether symptom substitution is a valid phenomenon or not be replaced by attempting to determine: (a) whether a particular patient's anxiety can be reduced by only one or by a repertoire of anxiety-reducing responses; (b) whether any of the responses in the repertoire are socio-medically grave." Suggestions are given for relevant research variables.—*B. J. House.*

1476. Citterio, C., & Rovere, M. D. Contributo allo studio della sindrome di Ganster in soggetti che hanno presentato—distanziati nel tempo—due distinti episodi gansteriani. [Contribution to the study of Ganster's syndrome in subjects that have presented two distinct gansterian episodes over a period of time.] *Arch. Psicol. Neurol. Psichiat.*, 1962, 23(1), 19-43.—2 gansterian episodes are differentiated according to onset, duration, and symptomatology.—*L. L'Abate.*

1477. Elles, G. The mute sad-eyed child: Colateral analysis in a disturbed family. *Int. J. Psycho-Anal.*, 1962, 43(1), 40-49.—The symptoms of the main patient, a 3-year-old child who would not speak, reflected the family constellation where each member reinforced the illness of the others to maintain the maladjustive family structure. Treatment of the boy required treatment of the entire family.—*G. Elias.*

1478. Shapiro, M. B. (U. London, England) The single case in fundamental clinical psychological research. *Brit. J. med. Psychol.*, 1961, 34, 255-262.—Laws discovered using one S will be confirmed with other Ss. Clinical psychological research should center on laws about individuals, not groups. Several illustrations are discussed.—*C. L. Windler.*

1479. Weinberg-Dagoni, E. (Central Hosp., Afula) Hoser teavon shemeatsbanut etsel banot begil habitbagrut. [Anorexia nervosa in adolescent girls.] *Dap. refuim*, 1961, 20, 437-441.—3 cases of 12-14 year old girls suffering from nervous anorexia are described. 2 of them recovered after psychological treatment outside their homes; the 3rd was psychologically treated without satisfactory results. Their refusal to eat reflects their negative relation to the outer world and their displayed insistence on "privilege of existence." The common factors of their anorexia were: too early separation from parents, their position within the family, lack of preparation for life, too early intellectual education. (English & French summaries)—*H. Ormian.*

1480. Ze'ev, Hava. Yehudit: Yomana shel em. [Judith: A mother's diary] Tel Aviv, Israel: Hadar, 1961. 96 p.—A diary written over 3 years (1951-54) by the mother of a polio-afflicted 4-7-year-old girl. The history of the illness (a relatively simple case) is given from its beginning until the girl's recovery. The girl's behavior, especially her reaction to the illness and to her parents' behavior, is discussed.—*H. Ormian.*

PSYCHIATRIC SERVICES

1481. Barton, Walter E. (Boston State Hosp., Mass.) Administration in psychiatry. Springfield, Ill.: Charles C Thomas, 1962. xvi, 773 p. \$24.50.—A text designed primarily to furnish the psychiatrist entering or already engaged in the administrative role of his profession with a fundamental orientation to

the administrative aspects of clinical practice and mental hospital management. Through appended materials, rather specific information is provided on such matters as emergency civil defense and disaster plans used in a state hospital program, personnel procedures, etc. This text provides both a broad and an intensive approach to the day-by-day operational problems faced by the professional psychiatrist serving as an administrator of a mental hospital. Particular attention is paid to such major matters as use of staff, rehabilitation and after-care of the hospitalized, mental patient, treatment of the aged mental patient, care and maintenance of medical records, the use of volunteers, and the organization and administration necessary to manage such an institution.—*M. A. Seidenfeld.*

1482. Eisenberg, Leon. (Johns Hopkins U.) The strategic deployment of the child psychiatrist in preventive psychiatry. *J. child Psychol. Psychiat.*, 1961, 2(4), 229-241.—A review of epidemiologic and experimental evidence leads to the conclusions that (a) long term therapy is no more effective than brief therapy, (b) psychiatric guidance enhances the effectiveness of other mental health personnel, and (c) the introduction of almost any treatment program in institutions helps to control the behavior of delinquents and psychotics. Psychiatrists should, accordingly, devote less time to long term therapy and invest more in research, community mobilization for social welfare programs, early identification of disorders, and consultation. (85 ref.)—*J. M. Reisman.*

1483. Fleminger, J. J., & Mallett, B. L. (Guy's Hosp., London, England) Psychiatric referrals from medical and surgical wards. *J. ment. Sci.*, 1962, 108(453), 183-190.—All new referrals for a 5-year period were studied with salient findings: (a) 0.7% of 50,000 admissions were referred to psychiatrists, (b) 80% were referred by physicians and 20% by surgeons and gynecologists, (c) 40% of the patients seen had no known organic disease, (d) 1/4 were referred for bodily complaints and almost a 1/4 for overt mental disorder, (e) transfer to a psychiatric bed was necessary for 23% and admission to mental hospital for 1%.—*W. L. Wilkins.*

1484. Freour, P., Coudray, P., Serisé, M., & Evans, J. Le psychiatrie et les médecins. [Psychiatry and the doctors.] *Hyg. ment.*, 1961, 50(5), 346-361.—A study of the attitudes towards psychiatry of 100 French physicians revealed that: (a) the physician tends to classify mental illnesses as major or minor, and he treats the latter himself, usually with tranquilizers; (b) he tends to regard psychiatric hospitals in terms of the old asylums, and knows little of modern orientations; (c) most physicians regard mental health as a minor problem and know next to nothing of prophylaxis; (d) there are many prejudices and misunderstandings in the relations between general practitioners and psychiatrists; (e) more information is urgently needed, especially since the general practitioner has become an indispensable collaborator in the struggle for mental health.—*W. W. Meissner.*

1485. Hes, Yosef. (Talbie Hosp., Jerusalem) Beayot hapsikhiatria hasotsyalit. [Problems of social psychiatry.] *Dap. refuim*, 1962, 21, 196-202.—The background of the development of social psychiatry from the beginning of this century in Germany and the present situation is critically described.

Nowadays, social psychiatry studies the epidemiology of mental illness, the interaction of social forces with human adjustment as well as the sociological aspects of psychiatric treatment (e.g., the mental hospital as a small community or the therapeutic milieu). Prevention of mental illness is today considered as a part of social psychiatry. (English & French summaries) —H. Ormian.

1486. Lambo, T. Adeoye. (Aro Hosp. Nervous Diseases, Abeokuta, Nigeria) **A form of social psychiatry in Africa.** *World ment. Hlth.*, 1961, 13(4), 190-203.—Experience at Aro demonstrates that "it is the culture which determines the acceptability, success, or failure of a particular therapeutic orientation. It is also the culture (including social experiences and situation) which either permits or hinders the readiness of the relatives to adjust to the sick person and his emotional needs." Experience also shows that even "in non-literate societies, with their own pre-literate casual formulations, the greater the confidence of the community in the nature and form of treatment they can obtain and in the people who will treat them, the more . . . is their willingness to come forward for treatment."—J. C. Franklin.

1487. Storrow, Hugh A. (U. Kentucky) **Psychiatric treatment and the lower-class neurotic patient.** *Arch. gen. Psychiat.*, 1962, 6(6), 469-473.—Recent suggestions for improved psychiatric care of lower-class patients by increasing somatherapies and number of nonmedical psychotherapists are rejected until further research is done concerning the reasons for the small number of lower-class patients. Various studies indicate that lower-class neurotics seek, accept, and participate in psychiatric treatment more rarely than those from the middle-class. Past mental health education showed little change. (16 ref.)—L. W. Brandt.

1488. Vail, D. J. (Minnesota Dept. Public Welfare, St. Paul) **Mental hospital careers: A student's-eye view.** *Ment. Hosp.*, 1962, 13(3), 166-167.—Results of a questionnaire answered by advanced medical students who had spent the summer as clinical clerks in Minnesota state mental hospitals are cited.—L. Gurel.

Institutional Care

1489. Bates, Frederick, & White, Rodney. (Louisiana State U.) **Differential perceptions of authority in hospitals.** *J. Hlth. hum. Behav.*, 1961, 2(4), 262-267.—In order to study the perception of authority, a self-administered questionnaire was given to 282 respondents including members of boards of trustees, hospital administrators, and nurses. Statistically significant differences were obtained in the amount of authority which the groups reserved for themselves.—L. A. Ostlund.

1490. Burdock, E. I., & Hardesty, Anne S. (New York State Dept. Mental Hygiene) **An outcome index for mental hospital patients.** *J. abnorm. soc. Psychol.*, 1961, 63(3), 666-670.—"An Outcome Index for mental hospital patients is described. The index relates time out of hospital to follow-up period since first admission and weights their ratio differentially by number of readmission and releases. This index becomes relatively stable on a 2-year follow-up. It can be used as a criterion for prognostic efficiency, for efficacy of treatment, and for characterizing institutional policy."—G. Frank.

1491. Deane, William N. **The reactions of a nonpatient to a stay on a mental hospital ward.** *Psychiatry*, 1961, 24(1), 61-68.—This staff sociologist at the Vermont State Hospital at Waterbury resided on the rehabilitation ward for 7 days as a volunteer patient. Describing his emotional reactions, he noted their likeness to the symptomatology of several patients and the intensification of existing personality traits. He gained an altered understanding of patient life and routine, particularly of the special nature of leisure time in the hospital.—C. T. Bever.

1492. Dodge, Joan S. (Cornell U.) **Nurses' sense of adequacy and attitudes toward keeping patients informed.** *J. Hlth. hum. Behav.*, 1961, 2(3), 213-216.—A group of 126 nurses were questioned concerning attitudes towards self, patients, and patient care. The nurses were classified according to strong versus weak self-perception. It was concluded that "willingness to keep the patients medically informed is related to certain aspects of the self-picture—in particular, to a feeling of personal inadequacy or psychological strength."—L. A. Ostlund.

1493. Gralnick, Alexander. **Changing relations of the patient, family and practicing psychiatrist to the therapeutic community.** *World ment. Hlth.*, 1961, 13(2), 82-91.—"The changing scene in psychiatric hospitals [is] described with emphasis on the relationship between psychiatrist, patient and family." Altogether, "emphasis must be shifted towards 'total' treatment of the patient in an enlightened social setting. Here, active patient participation will be an index of healthy group interaction between various staff members and patients." Special attention is given to why the psychiatrist should be integrated into hospital activities and to the therapeutic effectiveness of short versus long hospitalization.—J. C. Franklin.

1494. Greenblatt, Milton. (Massachusetts Mental Health Center) **The transitional hospital: A clinical and administrative viewpoint.** *J. soc. Issues*, 1960, 16(2), 62-69.—A discussion of 2 broad goals in social psychiatry: the development of a "therapeutic community" within the mental hospital, involving breaking down barriers between staff and patients and an all-out development of therapeutic potentials; and the development of a "community mental hospital" by "stimulating joint responsibility and collaboration of both hospital and community in many aspects of mental illness and health." (33 ref.)—E. Y. Beeman.

1495. Hiller, E. Wesley, & Nesvig, David. (Mental Health Research Inst., Ft. Steilacoom, Wash.) **Changes in intellectual functions of children in a psychiatric hospital.** *J. consult. Psychol.*, 1961, 25(4), 288-292.—Wechsler and Bender-Gestalt were given 3 times over a 1-2 year period. Significant improvements appeared, particularly on verbal subtests and Bender-Gestalt. IQ scores did not rise; but, ratings of clinical improvement were related to Verbal IQ, Full-Scale IQ, Digit Span, and Gray Oral Reading Test. Most hospitalized children have problems which cause them to be retarded in verbal skills.—E. R. Ogting.

1496. Himes, Joseph S. (North Carolina Coll.) **Social distance to three types of hospitals.** *J. Hlth. hum. Behav.*, 1961, 2(3), 210-213.—The study attempted to differentiate patterns of appropriate re-

sponses towards individuals confined in ordinary, tubercular, and mental hospitals. The data were derived from questionnaires completed by 229 college students. Differences were evident in what was considered to be appropriate responses to the 3 kinds of patients. Communication of concern and personal contacts were considered appropriate for general and tubercular patients, while, there was a tendency to minimize all responses, particularly personal contacts, towards mentally ill patients.—*L. A. Ostlund.*

1497. Kramer, Bernard M. (Tufts U.) **The day hospital: A case study.** *J. soc. Issues*, 1960, 16(2), 14-19.—A description of the day hospital associated with the Massachusetts Mental Health Center, its patient-population, staff, physical setting, routine, and meaning for the patient.—*E. Y. Beeman.*

1498. Mabry, John H. (U. Kentucky Medical Coll.) **Statistical notes on some British "open" mental hospitals.** *Int. J. soc. Psychiat.*, 1961-62, 8(1), 19-31.—This report is based on visits to 6 British open hospitals during the summer of 1958. It was found that the open hospital does not necessarily require a higher budget nor an increase in the patient-staff ratio. The number of patients treated per psychiatrist tends to be higher in open hospitals, partly because of the greater admission. The open hospital seems able to use its resources more efficiently than the traditional type of mental hospital.—*R. M. Frumkin.*

1499. Mitchell, Joyce. (Royal Infirmary, Sunderland, England) **A program for the geriatric patient.** *ASHA*, 1962, 4(6), 167-171.—A speech clinician has been included in the team, at the geriatric unit of the United Oxford Hospitals, Oxford, England. The plan of the geriatric unit is described with the day hospital considered an environment for the older person impaired in speech and language. Management during early phases is described. Some of the ways in which the problems of the "long-stay" patient are faced are described.—*M. F. Palmer.*

1500. Nurse Utilization Project Staff. (State U. Iowa) **An investigation of the relation between nursing activity and patient welfare.** Iowa City, Ia.: State Univer. Iowa, 1960. xxxi, 412 p.—Describes 5 experiments in which nursing care was changed on medical, surgical, and urological wards. Changes included increasing nursing care hours per patient and conducting inservice education programs for nursing service personnel. "The development of instruments for measuring patient welfare and the use of these instruments as the criterion for evaluating changes in nursing care is the unique feature which distinguishes this study from most other nursing research." Work sampling techniques were used to determine the pattern of nursing activity during each experimental period. In general, the experimental variables failed to produce any favorable changes in either the pattern of nursing activity or the level of patient welfare.—*J. R. Simon.*

1501. Ryan, James H. (VA Hosp., Bronx, N. Y.) **The therapeutic value of the closed ward.** *J. nerv. ment. Dis.*, 1962, 134(3), 256-262.—"One hundred hospitalized mental patients were interviewed at time of discharge, to determine, from the patient's point of view, what therapeutic factors are offered by closed and semi-closed wards. Forty-five per cent of the study group indicated that protection from the com-

munity and superimposed control of their lives were the two factors most significant in their recovery. The effect of interpersonal relationships with staff and other patients is discussed briefly. This report suggests that the positive therapeutic effect of isolation and control be studied further before these techniques are discarded in favor of the open hospital."—*N. H. Pronko.*

1502. Schmidt, H. O., Fonda, C. P., & Lester, J. R. (Norwich State Hosp., Conn.) **A seminar approach for liberating the therapeutic potential of nurses and psychiatric aides: An exploratory study.** *Psychol. Rep.*, 1962, 10(1), 33-34.—"The efficacy of small discussion groups in producing a rapid reduction in custodial orientation on the part of nurses and charge aides was demonstrated."—*B. J. House.*

1503. Weihl, Hana. **Bet holim leholey nefesh kemanganon byurokrati.** [A mental hospital as a bureaucratic body.] *Me'gamot*, 1962, 12, 79-83.—Communication channels operating within a mental hospital, especially those regulating contacts between patients and staff members, are analyzed. A therapeutic approach by all these members is necessary, but its possibility depends upon the general structure of the hospital and the smooth running of information through formal and informal communication channels. Conflicts arise between the different aspects of the structure—those involved in its nature as a bureaucratic body and those connected with its aim to treat patients. (English summary)—*H. Ormian.*

1504. Wing, J. K. (Inst. Psychiatry, London) **Institutionalism in mental hospitals.** *Brit. J. soc. clin. Psychol.*, 1962, 1(1), 38-51.—Ratings of mental symptoms, ward behavior, and attitudes to discharge were made on randomly selected halves of all chronic male schizophrenic patients resident 2 or more years in 2 London hospitals. The results suggested that "patients gradually develop an attitude of indifference towards events outside the hospital which is part of a syndrome of 'institutionalism.'"—*C. M. Franks.*

1505. Winick, Charles. (Found. Day Hospitals, N. Y.) **Psychiatric day hospitals: A survey.** *J. soc. Issues*, 1960, 16(2), 8-13.—A discussion of day hospitals, different functions they may serve, selection of patients, staff composition, and treatment offered.—*E. Y. Beeman.*

Community Services

1506. Bailey, N. F., & Davis, E. L. (Jefferson City, Mo.) **Missouri's patient-placement program.** *Ment. Hosp.*, 1962, 13(3), 170-171.—A 1956 pilot program at Fulton State Hospital "led to the passage in 1959 of state legislation authorizing and providing funds for a patient placement program. Less than two years later 939 patients had been placed; of these, only 64—less than 7 per cent—had to return to the mental hospitals."—*L. Gurel.*

1507. Caplan, Gerald. (Harvard U.) **An approach to community mental health.** New York: Gune & Stratton, 1959. ix, 262 p. \$4.50.—Based on a series of lectures to various groups of professional workers, this volume is concerned with the nature of preventive psychiatry and the role of various professional personnel in providing preventive mental health services. The author discusses certain aspects of ego psychology and illustrates, from psy-

chological problems in pregnancy and early mother-child relationships, how problems in adjustment develop. The role of the nurse in maternal and child care, the social worker in the public health setting, and the family doctor are all discussed as they relate to the prevention of emotional disorder. The book concludes with a brief description of the structure of a community psychiatric program.—E. A. Rubinstein.

1508. Halmosh, Avraham. (Mental Health Clinic, Ramat Hen) *Sekirat sikum haaavoda bemirpaa livriut hanefesh*. [Final review of work in a mental health clinic.] *Dap. refuim*, 1962, 21, 58-66.—The Mental Health Clinic in Ramat Hen was established 10 years ago by the Sick Fund. Its structure, staff, and organization of work with children are described. During 1960, 602 children 3-16 years old were examined. The implications of the findings are discussed and further investigations suggested. (English & French summaries)—H. Ormian.

1509. Kantor, D., & Greenblatt, M. (Harvard) *Wellmet: Halfway to community rehabilitation*. *Ment. Hosp.*, 1962, 13(3), 146-152.—"... a unique experimental halfway house for chronic mental patients" was established in Cambridge, Massachusetts, in July 1960 by Harvard University and Radcliffe College students.—L. Gurel.

1510. Kramer, Bernard M. *Day hospital: A study of partial hospitalization in psychiatry*. New York: Grune & Stratton, 1962. xiv, 103 p. \$2.75.—The background of the day care program is reviewed and its application at the Massachusetts Mental Health Center is presented in detail. It is suggested that "75% of acute patients now hospitalized full-time could be handled on a day basis." Most categories of mental illness are included in the estimate. Need for the 24-hour "total institution" is viewed as greatly reduced.—R. Tyson.

1511. Landy, David. (U. Pittsburgh) *Rutland Corner House: Case study of a halfway house*. *J. soc. Issues*, 1960, 16(2), 27-32.—A description of this halfway house—its history, functions, and residents.—E. Y. Beeman.

1512. Lewis, F. A., & Kraft, A. M. (Fort Logan Mental Health Cent.) *Fort Logan: A community-oriented program*. *Ment. Hosp.*, 1962, 13(3), 154-157.—The rationale behind the establishment of Colorado's second state mental hospital is cited.—L. Gurel.

1513. Wechsler, Henry. (Harvard U.) *Halfway houses for former mental patients: A survey*. *J. soc. Issues*, 1960, 16(2), 20-26.—A discussion and description of this method of facilitating the transition from the hospital to the community.—E. Y. Beeman.

Case Work

1514. Briar, Joseph Scott. (Columbia U.) *The effects of client social class, social class distance, and social work experience on the judgments of social work students*. *Dissert. Abstr.*, 1961, 21(12), 3870-3871.—Abstract.

1515. Chance, Erika; Arnold, Jack, & Tyrrell, Sybil. (Mt. Zion Hosp., San Francisco) *Professional background and themes used in clinical case description*. *Hum. Relat.*, 1962, 15(1), 53-61.—Similarities and differences in clinical thinking among 400 Freudian psychiatrists, psychologists, and social

workers were investigated by evaluations of the transcripts of 1 analytic and 1 therapy session. Results indicate: (a) that psychologists differ from psychiatrists and social workers in their approach to transference and countertransference problems, (b) social workers more frequently comment favorably on the therapist and his technique, and (c) social workers tended to more frequent moralistic judgments of the therapy patient's alcoholism and promiscuity.—W. W. Meissner.

1516. Kogan, Leonard, (Ed.) *Social science theory and social work research*. New York: National Association Social Workers, 1960. 140 p. \$2.75.—This volume presents the proceedings of a 4-day interdisciplinary institute held in June 1959 by the Social Work Research Section of the National Association of Social Workers and financed by the National Institute of Mental Health. In addition to a summary of discussions the following prepared papers are included: "The Backdrop for Social Research: Theory-making and Model-building" (M. Loeb), "Role and Reference Group Theory" (E. Borgatta), "The Implications of Role Theory for Casework Research" (B. Werble), "Role and Reference Group Theory: Implications for Social Work Research" (A. Klein), "Organizational Analysis" (A. Gouldner), "Social Science and the Conceptual Framework for Community Organization Research" (A. Kahn), "Organization Theory: Implications for Administration Research" (H. Stein), "Theory and Research on the Small Group: Selected Theses and Problems" (E. Thomas), "Small-group Theory: Implications for Casework Research" (N. Polansky), "Small-group Theory and Research: Implications for Group Work Practice Theory and Research" (R. Vinter), "The Relationships Among Social Work Practice, Social Work Research, and the Social Sciences" (L. Kogan).—Author abstract.

1517. Thomas, E. J. *Experimental analogs of the casework interview*. *Soc. Wk.*, 1962, 7(2), 24-30.—The use of "experimental analogs" as a method of controlled study of client and social worker interaction. Usually, an actress is assigned to play the role of patient, and the reactions of the social worker are analyzed.—G. Elias.

COUNSELING & GUIDANCE

1518. Burton, Genevieve. *Group counseling with alcoholic husbands and their nonalcoholic wives*. *Marriage fam. Liv.*, 1962, 24, 56-61.—The operation and experiences of a group counseling program are reviewed. Counseling was conducted for husbands and wives, both spouses being carried in the same group.—L. Shatin.

1519. McGowan, John F., & Schmidt, Lyle D. (U. Missouri) *Counseling: Readings in theory and practice*. New York: Holt, Rinehart & Winston, 1962. xiv, 623 p. \$7.95.—A collection of 67 recent papers. Part I considers: a definition and description of counseling as a psychological specialty, historical antecedents of counseling psychology, and current problems of counselor education. Part II deals with: counselor and client expectations of the counseling process, counseling techniques, the importance of the counselor-developing his unique "style" and adapting techniques to particular problems, operant conditioning as a counseling technique, problems of time and

opportunity for counseling and their implications for the counselor and the client, verbal and nonverbal communication in the counseling process, test use and interpretation, and evaluating results of counseling. Part III considers: professional responsibility and morale, the counselor's relationship to other professions, counselor ethics, and legal considerations of importance to the professional counselor.—C. H. Miley.

1520. **Morman, Robert R.** (Los Angeles State Coll.) **Automation and counseling.** *Personnel guid. J.*, 1962, 40(7), 594-599.—The impact of automation is already being felt in the fields of educational counseling. Automation will affect every occupational level in this country and is expected itself to become the top industry of the future. Important implications for counseling include: counseling clients in changed economic milieus regarding long-range educational and vocational plans, and advising on present and future job opportunities in the field of automation. Automation will bring opportunities as well as problems. (18-item bibliogr.)—S. Kavruck.

1521. **Mueller, Vernon John.** (Ohio State U.) **The relationship between measures of the appropriateness of counselor subrole behavior and interview outcome.** *Dissert. Abstr.*, 1961, 21(11), 3527.—Abstract.

1522. **Pohlman, Edward Wendell.** (Ohio State U.) **A study involving client preferences for counselor behavior in counseling.** *Dissert. Abstr.*, 1961, 21(10), 3167.—Abstract.

1523. **Reiser, Martin.** (Temple U.) **The effects of group counseling on interpersonal relationships, anxiety level, intellectual functioning, and certain personality characteristics in a planned workshop experience.** *Dissert. Abstr.*, 1961, 22(1), 325.—Abstract.

1524. **Shoben, Edward J., Jr.** (Columbia U.) **The counselor's theory as personal trait.** *Personnel guid. J.*, 1962, 40(7), 617-621.—Theories in counseling are necessary tools to bring orderliness into the chaotic world of the counseling interchange and to promote the counselor's understanding of his client. But theories are destined by their abstract nature to ignore the unique qualities of a particular counselee's behavior and history, and may draw the counselor into conceiving the case before him as a representation of abstract ideas and formal relationships rather than as a highly distinctive and individual human being. The primary contribution of theory to counseling concerns the articulation of a set of ideas by which the counselor can discover order in counseling relationship. By "knowing himself," the counselor is likely to achieve the flexibility vital to professional growth.—S. Kavruck.

1525. **Waldman, Marvin.** (Temple U.) **The effects of group counseling in a controlled workshop setting on attitude, manual dexterity and ability to perceive correct spatial relations.** *Dissert. Abstr.*, 1961, 22(1), 328-329.—Abstract.

MARRIAGE & FAMILY PROBLEMS

1526. **Blood, Robert O., Jr.** (U. Michigan) **Marriage.** New York: Free Press Glencoe, 1962. xix, 515 p. \$6.00.—A revision of the author's 1955 text entitled *Anticipating Your Marriage* (see 29: 901). Considers "the entire cycle of family living

from dating through child-rearing." Extensive readings and references are included.—C. H. Miley.

1527. **Blood, Robert O., Jr., & Wolfe, Donald M.** **Husbands and wives: The dynamics of family living.** New York: Free Press Glencoe, 1960. xxi, 293 p. \$5.00.—A study of 909 families (731 urban and 178 rural) relative to sociological and psychological factors in marriage. Wives, but not husbands, were given a "structured and controlled interview of more than one hour each." Aspects studied include: power and authority, sex roles and division of labor, economic functions, children and family planning, companionship, emotional well-being, love, and strength and stresses. (42 ref.)—D. G. Brown.

1528. **Bodarky, Clifford John.** (U. Puerto Rico) **College students' attitudes towards marriage: A psychological research presentation with cross-cultural implications.** *Pedagogia, Rio Piedras*, 1962, 10, 81-87.—"The problem for this study was twofold: (1) to evaluate the anticipated role behavior in marriage among unmarried students and (2) to analyze the factors which helped develop these attitudes." 50 unmarried students (25 men and 25 women) at the University of Florida were interviewed. None had had a formal course in marriage and the family. 66% of the Ss indicated that the church had not contributed in a helpful sense to the development of their attitudes toward marriage. 70% reported that the school had not contributed either. 94% felt that they wanted sex to be a shared mutual expression of love and need in marriage.—R. E. Morán.

1529. **Ellis, Albert.** (NYC) **The American sexual tragedy.** (2nd ed.) New York: Lyle Stuart, 1962. 320 p. \$5.00.—A study of contemporary American attitudes on sex, love, marriage, and family relations, as expressed in such media as best-selling fiction and nonfiction books, magazines, newspapers, motion pictures, stage productions, radio and television programs, etc. Some of the topics include: the psychology of dress, beauty, romantic love, jealousy, weddings, family conflicts, divorce, and differences in sexual response. (281 ref.)—D. G. Brown.

1530. **Fallding, Harold.** (U. New South Wales, Australia) **The family and the idea of a cardinal role: A sociological study.** *Hum. Relat.*, 1961, 14(4), 329-350.—3 types of family orientation are described: (a) the adaptation type, in which husband and wife seek markedly different satisfactions from life; (b) the identification type, in which both parents identified their personal interests with those of the family itself; and (c) the false-identification type, which is intermediate between the preceding types in that the place of the family in relation to other interests remain undetermined for one or both partners and, on the other hand, the intrusion of critical differences of interest into common consciousness is avoided. The cardinal role in identification-type families has a unifying function insofar as both parents approach global identities which become nearly identical. (17 ref.)—W. W. Meissner.

1531. **Geismar, L. L., LaSorte, Michael A., & Ayres, Beverly.** (Rutgers U.) **Measuring family disorganization.** *Marriage fam. Liv.*, 1962, 24, 51-56.—An instrument for measuring family disorganization was tested on 150 urban families known to be seriously disorganized. The data were submitted to scalar analysis, and the results interpreted relative to

the meaning of the types and degrees of familial disorganization.—*L. Shatin.*

1532. **Greenberg, Herbert M., & Corwin, Jeanne.** (New Brunswick, N. J.) **A theoretical discussion on canalization as it applies to love in our culture.** *J. soc. Psychol.*, 1962, 56, 171-178.—Canalization is the fixing upon a specific satisfier of a general drive. Love has been defined in this paper as canalization, when the love satisfier provides sufficient pleasure over sufficient time. Once canalization or real love has occurred it is permanent, becoming a part of the drive system of the individual. Thus, when a satisfier, one's mate, has been canalized upon, there is an excellent chance for permanence and happiness. However, our society provides many barriers to canalization on a member of the opposite sex. The superficiality and mutual exploitiveness of our courtship and dating patterns and the double sex standard make it difficult to develop a deep enough relationship (from which sufficient pleasure over sufficient time can be achieved) so that canalization can occur. Ways of achieving healthy canalization in our society are explored.—*Author abstract.*

1533. **Halliday, Jean, & Paolucci, Beatrice.** **An exploration of home management goals.** *Marriage fam. Liv.*, 1962, 24, 68-74.—This is the preliminary report of a self-administering inventory designed to measure the short-term and long-term personal goals of home management.—*L. Shatin.*

1534. **Heer, David M.** (U. California, Berkeley) **Husband and wife perceptions of family power structure.** *Marriage fam. Liv.*, 1962, 24, 65-67.—138 oral interviews with Roman Catholic married couples of Irish descent in the Boston Standard Metropolitan Statistical Area revealed that "husbands' perceptions of the family power structure are shown to be significantly different from that of their wives."—*L. Shatin.*

1535. **Heigl-Evers, Annelise, & Heigl, Franz.** **Geben und Nehmen in der Ehe: Eine tiefenpsychologische Studie.** [Give and take in marriage: A depth psychological study.] Stuttgart, Germany: Verlag Angewandte Psychologie, 1961. 87 p. DM 7.50.—Based on the authors' psychotherapeutic practice, and addressed to the intelligent layman, this book discusses, in concrete terms, day-to-day difficulties encountered in married life. What frequently appears as a banal problem typically centers around 1 of 3 major themes: (a) possession, (b) worth, and (c) love (or sexuality in the narrower sense). This treatise deals with marital problems surrounding possession and possessiveness, which the authors consider primary. Subsequent publications will be devoted to the remaining 2 problem areas.—*H. H. Strupp.*

1536. **Kerckhoff, A. C., & Davis, K. E.** (Duke U.) **Value consensus and need complementarity in mate selection.** *Amer. sociol. Rev.*, 1962, 27(3), 295-303.—"For college couples who were seriously considering marriage, measures of need complementarity (Schutz's FIRO scales) and value consensus (Farber's index of consensus) were compared with progress toward permanence over a seven month period. Consensus was found to be significantly related to progress for only the short-term couples, and complementarity was significant for only the long-term couples. These findings are interpreted as indicating that a series of filtering factors operate in

mate selection with social status variables (class, religion, etc.) operating early in the relationship, consensus on values somewhat later, and need complementarity still later. The delay in the effectiveness of the complementarity factor is seen as due to stylized boy-girl interaction and unrealistic idealization of the loved one in the early stages of the relationship."—*L. Berkowitz.*

1537. **Kotlar, Sally L.** (Beverly Hills, Calif.) **Instrumental and expressive marital roles.** *Sociol. soc. Res.*, 1962, 46(2), 186-194.—This is a study of 100 middle-class married couples. The purpose of this particular phase of the study was twofold: (a) to determine whether marital roles for the husband and for the wife are differentiated with respect to instrumental and expressive components and (b) to ascertain whether differences in these role components in terms of self-perception, mate perception, and ideal marital role concepts were related to marital adjustment category.—*C. W. Page.*

1538. **Lomas, P.** **Family role and identity formation.** *Int. J. Psycho-Anal.*, 1961, 42(4-5), 371-380.—Describes a mental patient's case history to show how her prepsychotic illness resulted from failures in her family organization. While the early physical handling of the patient and the vicissitudes of her instinctual drives were admittedly important in her development, the final result of these factors on the patient's personality was related to the entire family constellation in which the patient was reared.—*G. Elias.*

1539. **Serrano, Alberto C., McDonald, Eugene C., Goolishian, Harold A., MacGregor, Robert, & Ritchie, Agnes M.** (U. Texas Medical Branch, Galveston) **Adolescent maladjustment and family dynamics.** *Amer. J. Psychiat.*, 1962, 118(10), 897-901.—63 adolescents and their families were studied for the underlying dynamics. The patients were found to fall into 4 diagnostic categories and the families into 4 types of family interaction, each related to 1 of the 4 types of adolescent disturbance.—*N. H. Pronko.*

1540. **Stuart, Irving R.** (Hunter Coll.) **Complementary vs. homogeneous needs in mate selection: A television program situation.** *J. soc. Psychol.*, 1962, 56, 291-300.—70 women and 43 men were interviewed and tested as voluntary applicants for a television program whose purpose was to introduce individuals to each other with the possibility that it would lead to marriage. A board of psychologists was established to interview, test, evaluate, and categorize all applicants as to personality structure and interests. This material was then used to establish suitable groupings of a member of one sex with 3 members of the opposite sex. The problem of establishing a suitable criterion for the matching of personality needs was approached via the Maslow Security-Insecurity Inventory, the Rotter Incomplete Sentences Blank, and the Machover Figure Drawing Test. The results of these tests were not very meaningful since the applicants gave only expected replies in the non-clinical environment. The projective test was the most useful, but still limited because of the circumstances under which it was administered. A questionnaire indicated that what most of the applicants sought for in a mate were personality qualities which complemented their own, and that they evaluated their own desirability not in terms of qualities usually as-

sociated with being a good husband or wife, but in terms of social graces and physical attractiveness.—*Author abstract.*

1541. Toman, Walter. (Brandeis U.) **Family constellation; Theory and practice of a psychological game.** New York: Springer, 1961. viii, 248 p.—Observations based on family constellations of over 400 persons "have been integrated into a system comprising eight basic types of sibling position and sixty-four basic types of conflict possible between a person and his or her parents." After a description of the "game" and methodological considerations, the 8 major types are presented in the form of character portraits, followed by 6 case examples and theoretical discussion. (58 ref.)—*H. P. David.*

MENTAL HEALTH & REHABILITATION

1542. Alberts, Dorothy; Hudec, Martha; Lever, P. Gordon, & West, Fred R. (South Florida State Hosp.) **Farm project proves successful for Florida mental patients.** *J. Rehabil.*, 1962, 28(2), 15.—A brief presentation of a rehabilitation project for the employment of Negro mental patients undergoing rehabilitation at South Florida State Hospital.—*M. A. Seidenfeld.*

1543. Alonso, A. Mateo. (Caracas, Venezuela) **Who is mentally healthy?** *World ment. Hlth.*, 1961, 13(1), 21-25.—The necessary components of mental health as discussed resolve into this definition of mental health: "A personal condition liable to variations through the influence of biological, psychological, and social factors; that maintains intrapersonal harmony; that enables the establishment of good relations with fellow creatures and the ability to face life gracefully; that befriends the individual as an active partner in the constructive work of the psychological and social milieu where he evolves; and finally endows the person with abundant energy to employ it in valuable outside activities."—*J. C. Franklin.*

1544. Arnholter, E. G. (Indianapolis Goodwill Industries) **The validity of Fisher's maladjustment and rigidity scales as an indicator of rehabilitation.** *Personnel guid.*, 1962, 40(7), 634-637.—Neither Fisher's Rorschach Rigidity or Maladjustment scales predicted ultimate employability. Staff ratings based on several variables are likely to be more valid.—*S. Kavruck.*

1545. Berner, Bernard. (New York U.) **Description and evaluation of a Veterans Administration tuberculosis hospital rehabilitation program.** *Dissert. Abstr.*, 1961, 21(10), 3179-3180.—*Abstract.*

1546. Black, Bertram J., Meyer, Henry J., & Borgatta, Edgar F. (Altro Health & Rehabilitation Services, N. Y.) **Altro Health and Rehabilitation Services: Case study of a protected workshop.** *J. soc. Issues*, 1960, 16(2), 40-46.—A description of the Altro program, the population served, the staff, and the services offered. When a sample of ex-psychiatric patients served by Altro was compared with a sample not served; the difference in rehospitalization rate was in the direction expected but not statistically significant.—*E. Y. Beeman.*

1547. Bugallo, Oscar. **Aportaciones al diagnóstico y tratamiento de las neurosis y psicosis infanto-juveniles.** [Contributions to the diagnosis and treatment of infantile and juvenile neuroses and

psychoses.] *Acta neuropsychiat. Argent.*, 1961, 7(3), 195-197.—Survey of progress in dealing with mental illness in children and juveniles in Argentina. Some suggestions are made for better organization of efforts to deal effectively with the problems involved.—*W. W. Meissner.*

1548. Crawford, Fred R., Rollins, Glen W., & Sutherland, Robert L. (Texas State Dept. Health) **Variations in the evaluation of the mentally ill: II. The viewpoint of the rural dweller.** *J. Hlth. hum. Behav.*, 1961, 2(4), 267-275.—The goal was to determine how a group of rural dwellers differ from urban dwellers in their attitudes toward mental illness. The Ss were 230 rural and 718 urban respondents in 4 Texas counties. The results indicated that rural and urban dwellers utilize mass communication media and evaluate illness categories in similar ways. Moreover, it was believed that those who disseminate mental health information had changed and improved the knowledge of Texas residents. However, changes in actions toward mental illness by the residents had not been demonstrated.—*L. A. Ostlund.*

1549. Dinitz, Simon; Angrist, Shirley; Lefton, Mark, & Pasamanick, Benjamin. **Instrumental role expectations and posthospital performance of female mental patients.** *Soc. Forces*, 1962, 40(3), 248-254.—6 months after discharge, over 200 former patients and a "significant other" (a person significant to a former patient) of each were interviewed. A positive relationship is revealed between the expectations of these others and the posthospital performance of certain domestic and social activities by the discharges. "The greater the expectations of significant others and of the patients themselves, the higher the level of posthospital patient functioning [and] the greater the agreement in expectations between patient and significant other, the greater the tendency for better posthospital performance."—*A. R. Howard.*

1550. Dohrenwend, Bruce P. (Columbia U.) **Some aspects of the appraisal of abnormal behavior by leaders in an urban area.** *Amer. Psychologist*, 1962, 17, 190-198.—Questionnaire interviews were conducted with 87 leaders in a "Health District in New York City." Brief case descriptions of 6 kinds of pathological behavior were read individually to each leader. Educational and religious leaders are much more likely to see the cases as mentally ill, while the economic leaders manifest relatively low tendencies in this regard. Educational and religious leaders "estimate that they are asked for advice about problems of mental disorder more frequently than the political-legal and economic leaders." There are "high tendencies of the educational leaders and low tendencies of the economic leaders to regard the disorders as serious."—*S. J. Lachman.*

1551. Goertzel, Victor; Beard, John H., & Pinnick, Saul. (Fountain House, NYC) **Fountain House Foundation: Case study of an expatients club.** *J. soc. Issues*, 1960, 16(2), 54-61.—A description of Fountain House, a club for former mental patients—its history, theoretical orientation, membership, staff, and types of services offered.—*E. Y. Beeman.*

1552. Havens, Leston L., & Harding, Francis A. (Massachusetts Rehabilitation Commission, Boston) **Rehabilitating the mentally disabled: A report of the Massachusetts Commission's methods and ex-**

perience. *J. Rehabil.*, 1961, 27(6), 22-23, 43-46.—The Massachusetts Rehabilitation Commission has developed a method of dealing with the problems of mental health and illness by establishing a Mental Health Section consisting of a chief of mental health and 5 senior counselors. This approach appears to succeed in supplying the rehabilitation counselor with some expert help in dealing with the complicated problems of their clients who are disabled by mental illness. The complexity of the mentally ill appears to require considerable additional training for the counselor which, in the Massachusetts program, is supplied through tutorial assistance. The methods for accomplishing this are described, and emphasis is placed upon the fact that the same time factors which may be applied in coping with the vocational rehabilitation of the physically disabled do not apply to the problems of these clients—they take longer, more intensive efforts and the client must often have continuing treatment to maintain his gains.—*M. A. Seidenfeld.*

1553. Landy, David. (U. Pittsburgh) **Rehabilitation as a sociocultural process.** *J. soc. Issues*, 1960, 16(2), 3-7.—A discussion of psychiatric rehabilitation in terms of processes of socialization and cultural conformity.—*E. Y. Beeman.*

1554. Landy, David, & Wechsler, Henry. (U. Pittsburgh) **Common assumptions, dimensions, and problems of pathway organizations.** *J. soc. Issues*, 1960, 16(2), 70-78.—A discussion of the common elements among the different approaches toward rehabilitation of the former mental patient back into the community environment. There is a need for more research in this field, but the problems involved are many and difficult.—*E. Y. Beeman.*

1555. Lichtenberg, P., Cassetta, Rhonda K., & Scanlon, J. C. (Bryn Mawr Coll.) **Mutual achievement strivings: A continuum for mental health.** *J. abnorm. soc. Psychol.*, 1961, 63(3), 619-628.—Mental health is defined in transactional terms, i.e., in terms of the intent of an individual towards equality or mutuality of achievement in relating to others. 4 levels of mutual achievement striving are described and a continuum composed of 8 varieties of intention-transactions is offered. Case histories of 64 patients admitted to a psychiatric hospital were examined to isolate events which could be evaluated in terms of the intention-transaction dimension. Each S was assigned a score on this continuum which reflected his degree of "mental health," and these scores were then compared to a measure of severity of mental illness (see 35: 6569), psychiatric diagnosis, type of treatment recommended, and outcome of treatment. Intention-transaction scores correlated positively with the variables.—*G. Frank.*

1556. Moes, J. Howard. (Jewish Vocational Service, Los Angeles, Calif.) **V. R. Workshop attacks psychological barriers.** *J. Rehabil.*, 1962, 28(2), 10-12.—Based upon his experience as a workshop director of handicraft industries, the author indicates the value of a combination of individual and group counseling with the wide variety of work experiences available in a rehabilitation workshop. This situation affords the client the opportunity to verbalize his feelings about the natural events associated with work, such as competition, conflict, job pressures, and pay.—*M. A. Seidenfeld.*

1557. Mortensen, Benjamin Franklin. (U. Utah) **The relationship of certain biographical information to the successful vocational rehabilitation of psychiatric patients.** *Dissert. Abstr.*, 1961, 21(11), 3526.—*Abstract.*

1558. Olshansky, Simon. (Cambridge Service Retarded Children) **The transitional sheltered workshop: A survey.** *J. soc. Issues*, 1960, 16(2), 33-39.—A discussion of sheltered workshops, their general purposes and goals, the types of people they serve, and the assumptions underlying the expressed need for such protected work situations.—*E. Y. Beeman.*

1559. Patterson, C. H. (U. Illinois) **Evaluation of the rehabilitation potential of the mentally ill patient.** *Rehabil. Lit.*, 1962, 23(6), 162-172.—Vocational rehabilitation constitutes an important segment of the total rehabilitation of the emotionally disturbed. In client selection and evaluation: (a) neither diagnosis nor symptomatology are highly related to successful vocational rehabilitation; (b) the most useful predictors are those which sample occupationally relevant behavior; (c) various approaches to evaluation seem desirable; (d) selection is a progressive procedure; (e) the selection process must be adapted to the individual patient and his situation, potentialities, and goals; (f) the rehabilitation counselor should be involved in the selection process from the beginning. (78-item bibliogr.)—*W. D. Kerr.*

1560. Ramon, A. C. **The effect of rapid culture change on mental health.** *World ment. Hlth.*, 1960, 12(4), 152-162.—A comparison of 2 villages in Mauritius—Triplet and Stanley—shows "that acculturation, when rapid and extensive, has a damaging effect on mental health and results in increase of mental illness; an uneven rate of deculturation is more damaging than mere rapidity." Results show "That in order to minimize the ill effects of rapid acculturation, the Government and society must satisfy the emotional needs of the people for grouping, by providing facilities which will permit good socially-accepted groupings to be formed."—*J. C. Franklin.*

1561. Rapoport, Robert. **Community as doctor: New perspectives on a therapeutic community.** Springfield, Ill.: Charles C Thomas, 1961. x, 325 p. \$9.75.—A report of socioanthropological research on Maxwell Jones' Social Rehabilitation Unit in England. Descriptions and analyses are given of the ideology of the unit, the system of staff and social roles, organization of patient activities, patient reactions, and the involvement of the family in treatment and rehabilitation. A conceptual distinction between treatment goals and rehabilitation goals is developed. 30 postulates are developed as general principles for the development of therapeutic milieux in other contexts.—*E. Zollik.*

1562. Rivière, Maya. (Ass. Aid Crippled Children, NYC) **Rehabilitation codes: Five-year progress report, 1957-1962.** New York: Rehabilitation Codes, 1962. 174 p.—A 5-year progress report on the Office of Vocational Rehabilitation-supported project concerned with the development and field testing of codes for the serial recording of information essential to the rehabilitation process. These codes permit punchcard translation of the personal history, health history, impairment-etiology, and evaluation-

service data contained in the rehabilitants record. They thus provide a means for data-processing and advance the possibility for research in an area of clinical importance that has long suffered from uniformity of data reporting. Well over 100 experts in such areas as communicative disorders, psychosocial function, visual function, vocational terminology, research and statistics, and the general field of rehabilitation have served on the committees assisting the director of the project in the development of the codes thus far. The manual contains the codes enabling those engaged in fieldtesting to try them out and make such changes as experience indicates necessary.—*M. A. Seidenfeld.*

1563. Shock, N. W. (National Inst. Health, Bethesda, Md.) **Rehabilitating the aged: A physiologist looks at the problem.** *J. Rehabil.*, 1962, 28 (2), 16-18.—A brief review of the problems and advancements made in the field of rehabilitating the aged.—*M. A. Seidenfeld.*

1564. Sorrentino, Juan G. **El rol del individuo frente a los desórdenes de la conducta.** [The role of the individual in the face of behavioral disorders.] *Acta neuropsiquiat. Argent.*, 1961, 7(3), 206-207.—The function of social roles in the formation of personality is discussed. The intrapsychic and emotional needs must be integrated with the role in which one confronts the ambient social environment. The healthy personality achieves a certain flexibility in adapting these roles to changing circumstances, and the failure to do so is a source of frustration and anxiety.—*W. W. Meissner.*

1565. Srole, Leo; Langner, Thomas S., Michael, Stanley T., Opler, Marvin K., & Rennie, Thomas A. C. (State U. New York Medical Center, Brooklyn) **Mental health in the metropolis: The midtown Manhattan study.** Vol. 1. New York: McGraw-Hill, 1962. xii, 428 p. \$9.95.—This is the 1st of a 3-volume series based on an 8-year research study of the midtown population of Manhattan. The study was carried out by a collaborating team of social scientists and psychiatrists. It is "a sociological study with medical orientation. The central reference point is an estimate of mental health; its central theme the etiology of mental illness; its sociological concern the amount, quality, and adequacy of psychiatric treatment." Weighing the effects of the great tide of social change in the United States since 1900, the authors suggest that there is "a likely net effect of large-scale improvement in the over-all health composition of the American people." Part I identifies the major conceptual and procedural instruments used. Part II delineates the population composition and psychosocial climate of the community studied. Part III scrutinizes the mental health and psychiatric care of midtown Manhattan and compares them with results yielded by investigation of other populations. Part IV has overall commentaries on the study by Michael and Srole.—*H. Feifel.* •

1566. Strojilevich, Mario. **La santé mentale du stagiaire étranger.** [The mental health of foreign students.] *Hyg. ment.*, 1961, 50(6), 393-397.—Foreign students were studied in regard to attitudes toward departure, attitudes upon arrival, adaptive mechanisms, and problems posed by return. 2 groups were considered: those who were forced out of their native land and thus took up more or less permanent

residence unwillingly, and those who came willingly and on a more temporary basis.—*W. W. Meissner.*

1567. Wechsler, Henry. (Harvard U.) **The ex-patient organization: A survey.** *J. soc. Issues*, 1960, 16(2), 47-53.—Ex-patient clubs of former mental patients have seen a rapid growth in the last 10 years, possibly reflecting the "other-directed" tenor of today's society. The article discusses these organizations, their underlying assumptions, types of leadership, membership, services, and problems encountered.—*E. Y. Beeman.*

1568. World Federation for Mental Health. **Mental health and international perspective.** London, England: WFMH, 1961. 84 p. \$.25.—Review of dimensions of mental health as affected by changing cultural aspects since 1948: the acculturation of population growth and pressures, the emergence and technological development of new nations, the effects of increased automation in industrialized countries, consequences of greater facilities for transportation and communication, and present trends in the treatment of mental illness and prevention of mental disorder.—*E. L. Gaier.*

1569. Yaphe, Ruth. (Shalvata Hosp., Magdiel) **Histaglutam shel nitsoley hamishtar hanatsi aharey aliyatam leyisrael.** [Mental adjustment of the survivors of the Nazi régime after immigrating to Israel.] *Dap. refuim*, 1962, 21, 127-130.—4 cases are described illustrating 4 patterns of reaction: those who don't want to forget; who are not able to forget; who seemingly forget, but as a matter of fact are troubled by unconscious memories; and who are well adapted to the new conditions in Israel (most of the survivors). (English & French summaries)—*H. Ormian.*

1570. Zigler, E., & Phillips, L. (Yale U.) **Social competence and outcome in psychiatric disorder.** *J. abnorm. soc. Psychol.*, 1961, 63(2), 264-271.—Relationship of premorbid social competence of patients necessitating hospitalization to length of hospitalization, frequency of hospitalization, and time between hospitalizations was studied. Case histories of 251 patients were analyzed. As with previous studies, a positive relationship between the variables was found. Those at the lower end of the social competence continuum had longer periods of hospitalization and greater likelihood of rehospitalization. Social competence was therefore seen to be related to prognosis. Results were discussed in terms of developmental approach to personality and, in particular, psychopathology.—*G. Frank.*

ABNORMAL PSYCHOLOGY

1571. Bliss, Eugene L., & Clark, Lincoln D. (U. Utah) **Visual hallucinations.** In Louis West (Ed.), *Hallucinations* (see 37: 1588). Pp. 92-107.—A summary of work dealing with the effects of sensory isolation, sleep deprivation, LSD-25, delirium tremens, and schizophrenia with respect to visual hallucinations. The data suggest 3 general varieties of abnormal visual experience: (a) some normal people have the capacity for visions, which is "enhanced by reverie, isolation, and darkness." These visions are usually realistic and monochromatic or pale in color. (b) Visions of hypnagogic states, dreams, and sleep deprivation. These states share the elements of semi-mnolence and altered electroencephalographic ac-

tivity. (c) The third category are the visions induced by hallucinogenic agents, and withdrawal from depressant drugs. (18 ref.)—*J. B. Thompson.*

1572. Eisenberg, Leon. (Johns Hopkins U.) *Hallucinations in children.* In Louis West (Ed.), *Hallucinations* (see 37: 1588). Pp. 198-208.—A discussion of "hallucinatory phenomena in children with an emphasis on their relevance to a general theory of hallucinations." (39 ref.)—*J. B. Thompson.*

1573. Essen-Möller, Erik. (U. Lund, Sweden) *On classification of mental disorders.* *Acta psychiat. Scand., Copenhagen*, 1961, 37(2), 119-126.—The simultaneous use of both syndromatic and etiologic classifications of mental disorders is advocated in order to end the inconsistency, contamination, and divergency entailed in customary classifications. The proposed system is illustrated. It provides more possibilities for the combination of different syndromes and etiologies, stimulating awareness of "atypical" constellations by breaking up inveterated conventions and misconceptions and eliminating meaningless compromise between divergent schools.—*R. Kaelbling.*

1574. Evarts, Edward V. (National Inst. Health, Bethesda, Md.) *A neurophysiologic theory of hallucinations.* In Louis West (Ed.), *Hallucinations* (see 37: 1588). Pp. 1-14.—A review is presented of philosophical speculations, neuropsychological theories, and neurophysiologic contributions concerning hallucinations. The hypothesis is offered that "some hallucinations are correlative with a neurophysiologic process similar to one which occurs during sleep, and which consists of abnormality brisk discharges of centers involved in waking perception." (24 ref.)—*J. B. Thompson.*

1575. Fisher, Seymour. (State U. New York) *Body image boundaries and hallucinations.* In Louis West (Ed.), *Hallucinations* (see 37: 1588). Pp. 249-257.—"Various findings . . . [are] cited which indicate a correlation between poor body boundary demarcation and the occurrence of hallucinatory phenomena." Phantom sensations, schizophrenic disorganization, and hallucinogenic drug effects are discussed. (24 ref.)—*J. B. Thompson.*

1576. Gillibert, J. (60, rue Velpeau, Antony, Seine) *L'ontogenèse en psychopathologie.* [Ontogenesis in psychopathology.] *Evolut. psychiat.*, 1961, 26(4), 477-510.—In a philosophical discourse, the author criticizes genetical and evolutionary models as too simple to explain the creativity of being. Neuroanatomical evidence by Bolk is cited as invalidating these models. A historical summary points out the trend in Western philosophy which considers thought as "being" and "thinking." This concept is traced through Moses, Sophocles, Plato, Pascal, 19th-century French poets such as Mallarmé and Baudelaire, and to modern existentialists such as Heidegger. However, the emphasis is upon Freud, whose therapy is founded upon the relationship of being—a dynamic unconscious which is beyond casual and scientific explanation.—*L. A. Ostlund.*

1577. Goldstone, Sanford. (Baylor U.) *Psychophysics, reality and hallucinations.* In Louis West (Ed.), *Hallucinations* (see 37: 1588). Pp. 261-272.—A presentation of "a psychophysical point of view that departs from the classical stimulus-centered sensory psychology" and a demonstration of "the potential of the relevant methods and formula-

tions that permit the derivation of quantitative information about the functioning and malfunctioning of internal standards or concepts." 2 hypotheses are suggested to partially account for hallucinations: (a) "a partial reduction in intersensory stimulus received by one mode may be interpreted in terms of a less appropriate mode," and (b) "a partial reduction in the subject's ability to make contemporary use of past experience because his internal standard has become less available or less vivid." (35 ref.)—*J. B. Thompson.*

1578. Masserman, Jules H. (Northwestern U.) *Principles of dynamic psychiatry: Including an integrative approach to experimental and clinical psychology.* (2nd ed.) Philadelphia, Pa. Saunders, 1961. xxi, 332 p. \$8.00.—A revision of the 1946 introductory text. About "half the 1200 references of the original bibliography have been replaced by more recent and more comprehensive contributions. . . . The discussions on combat neuroses and wartime morale have . . . been deleted (and in) their place are entirely new sections on ethology . . . information and systems theory . . . disturbances of communications . . . and the evolution of psychotherapy."—*C. T. Morgan.*

1579. Myers, Thomas I., & Murphy, Donald B. (Human resources Research Office, Monterey, Calif.) *Reported visual sensation during brief exposure to reduced sensory input.* In Louis West (Ed.), *Hallucinations* (see 37: 1588). Pp. 118-124.—40 Ss wearing opaque goggles were placed on a bed in a semi-light-proofed room for 10-25 min. $\frac{1}{2}$ of the Ss had prior Rorschach experience. $\frac{1}{2}$ of the Ss in each of these groups were told that visual sensations in the absence of light were normal; and the other Ss were told that such experience was only reported by psychiatric patients. Results indicated that nonpsychiatric Ss report visual sensations under minimal deprivation. The type of instruction significantly influenced the frequency and complexity of reported visual sensations. The degree to which things were seen on Rorschach cards was not significantly related to the frequency of complex visual sensation.—*J. B. Thompson.*

1580. Orme, J. E. (Middlewood Hosp., Sheffield, England) *Time estimation and personality.* *J. ment. Sci.*, 1962, 108(453), 213-216.—For groups of 30 for each clinical entity, and for estimates of 30-minute and 20-minute filled intervals, psychopathic and hysterical groups give longer estimates than controls, while neurotic and psychotic depressives give shorter estimates.—*W. L. Wilkins.*

1581. Post, Felix, & Wardle, Joan. (Bethlem Royal Hosp., London, England) *Family neurosis and family psychosis.* *J. ment. Sci.*, 1962, 108(453), 147-158.—Scrutiny of the experimental literature on the influence of the mentally ill on other members of the family or of the family on the patient, whether adult or child, indicates that although much of the literature is poorly conceived—sometimes because of being prematurely concerned to prove some basic theoretical construct—the problems are crucial to the understanding of mental health, and much more research is needed. (57 ref.)—*W. L. Wilkins.*

1582. Rögler, Lloyd H., & Hollingshead, August R., (U. Puerto Rico) *Class and disordered speech in the mentally ill.* *J. Hlth. hum. Behav.*, 1961,

2(3), 178-185.—The hypothesis was tested that there are relationships between social class and the communication of ideas by mentally ill persons. By means of probability sampling in San Juan, Puerto Rico, 303 interviews were completed with people who had sought psychiatric aid. The data supported the hypothesis. The clearest findings were (a) as the level of education increases there is a greater tendency to seek psychiatric aid, and (b) schizophrenic incoherence is correlated with lowerclass status. It was concluded that "incoherence in communication may be a social-psychological reaction to sociocultural stress."—*L. A. Ostlund.*

1583. **Schlesinger, Benno.** (Mount Sinai Hosp., N. Y.) **Higher cerebral functions and their clinical disorders.** New York: Grune & Stratton, 1962. xiv, 560 p. \$14.75.—The purpose of this book is to present in a comprehensive fashion the anatomic and neurophysiological background for psychology and psychiatry. Major topics covered are: basic concepts, affectivity, thought, skill, and art. Selected examples of more specific topics discussed include: neurosis and psychosis, the schizophrenias, frontal lobe disease, nature of thought, biological brains compared with electronic brains, integration of skilled movements, disorders of recognition and skill, and disorders of language.—*B. Martin.*

1584. **Scheibel, Madge E., & Scheibel, Arnold B.** (U. California.) **Hallucinations and the brain stem reticular core.** In Louis West (Ed.), *Hallucinations* (see 37: 1588). Pp. 15-32.—Previous work suggests that hallucinations may develop in relation to changes in the incoming sensory data, possibly in the receptors, or to abnormality in the CNS, from brain stem to cortex. Present data suggest that the reticular formation influences the post synaptic dendrites of these systems. "... the level of dendritic activity ... tends to bias the neuron ... modulating its response to specific sensory inputs. ... Hallucinatory phenomena ... may represent a pathophysiologic response of brain tissue to changes in dendrite-soma equilibrium, wherein externally valid sensory information receives decreasing weight in relation to internal elaborations." (51 ref.)—*J. B. Thompson.*

1585. **Strauss, Erwin W.** (VA Hosp., Lexington, Ky.) **Phenomenology of hallucinations.** In Louis West (Ed.), *Hallucinations* (see 37: 1588). Pp. 220-231.—"Hallucinations are not a mere addition ... in a normal modality. They originate in distorted modalities." Hallucinations "signify pathological modes of being-in-the-world. Here phenomenology is the method of choice. Instead of explaining behavior by means of physiologic hypotheses ... phenomenology tries to understand the mentally sick, understanding first the norm of Man as an experiencing being."—*J. B. Thompson.*

1586. **Weinstein, Edwin A.** (Walter Reed Army Inst. Research, Washington, D. C.) **Social aspects of hallucinations.** In Louis West (Ed.), *Hallucinations* (see 37: 1588). Pp. 233-238.—"Data of hallucinations and delusions were gathered from patients who were hospitalized in the psychiatric ward of a small general hospital" in the American Virgin Islands over an 18 month period. Differences in 4 cultural groups and various hallucinations are described. Observations indicate that the hallucinations "are not bizarre or exotic phenomena, but are ...

a part of a fabric of the society in which they occur. An hallucination is a highly condensed symbol that has the quality of reality because it is an element in a pattern of social relatedness."—*J. B. Thompson.*

1587. **West, Louis J.** (U. Oklahoma.) **A general theory of hallucinations and dreams.** In Louis West (Ed.), *Hallucinations* (see 37: 1588). Pp. 275-290.—"In the normal waking state, our brains are under constant bombardment by information ... derived ... from stimuli. ... This input of new information has an inhibiting effect on the emergence into awareness of previous perceptions. If the input is sufficiently decreased perceptual engrams may be released. If ... there is ... vivid awareness, the released perceptions may be ... reexperienced as fantasies, dreams, or hallucinations." (38 ref.)—*J. B. Thompson.*

1588. **West, Louis Jolyon. (Ed.)** (U. Oklahoma.) **Hallucinations.** New York: Grune & Stratton, 1962. viii, 295 p. \$9.95.—The joint American Psychiatric Association-AAAS symposium on hallucinations was held in December 1958. Topics included a neurophysiologic theory of hallucinations; the role of the brain stem reticular formation; pharmacodynamics of hallucinations; comparison of drug induced and psychotic hallucinations; hallucination in sleep deprivation, visual hallucinations; hallucinations in schizophrenia; hallucinations in children; hypnotically induced hallucinations; phenomenology of hallucinations; social aspects of hallucinations; phantom sensations; psychophysics, reality, and hallucinations; and a theory of hallucinations and dreams. (see 37: 310, 318, 319, 320, 321, 324, 325, 640, 653, 654, 1459, 1571, 1572, 1574, 1575, 1577, 1579, 1584, 1585, 1586, 1587, 1642, 1646, 1802, 1817, 1822)—*J. B. Thompson.*

PHYSICAL HANDICAPS

1589. **Bell, A. H.** (VA Area Office, Atlanta, Ga.) **Attitudes of selected rehabilitation workers and other hospital employees toward the physically disabled.** *Psychol. Rep.*, 1962, 10(1), 183-186.—A group of 30 hospital employees with disabled relatives or friends scored significantly higher on an Attitude Toward Disabled Persons Scale (ATDP), indicating greater acceptance, than did 2 groups without close personal ties to disabled persons. Of Ss without personal ties, a group of 40 rehabilitation workers did not differ from a group of 40 hospital employees not engaged in therapeutic work in ATDP scores. Various interpretations of the test are discussed in the light of these results.—*B. J. House.*

1590. **Cohn, Nancy.** (U. Houston.) **Understanding the process of adjustment to disability.** *J. Rehabil.*, 1961, 27(6), 16-18.—Adjustment of the disabled to their somatopsychological problems are explained utilizing the familiar models of Lewin, Meyerson, and others to explain the interrelationship between the disabled and their individual environmental milieu.—*M. A. Seidenfeld.*

1591. **Cowen, E. L., Underberg, R. P., Verillo, R. T., & Benham, F. G.** (U. Rochester.) **Adjustment to visual disability in adolescence.** New York: American Foundation Blind, 1961. xiii, 239 p. \$4.50 (cloth), \$2.50 (paper).—A description of a 3-year research program on the sociopsychological aspects of visual disability. The experimental group of 127 visually disabled adolescents included 71 living

at home and attending public school facilities and 56 attending residential schools for the blind. A control group of 40 sighted adolescents was used. Data were collected from the mothers of all adolescents and from about 40% of the fathers. Child adjustment, parental attitudes, and parental understanding were measured with available and newly developed instruments. The groups were strikingly similar in their adjustment, and the findings severely challenge "Any prior beliefs about inevitable contingencies between visual disability and maladjustment." Publicly expressed maternal attitudes are ill-suited as predictors of adjustment in the child, while maternal understanding correlates highly with child adjustment. (236 ref.)—*B. Lowenfeld*.

1592. Figuerola Román, Miguel. *El niño minorado y la organización familiar*. [The handicapped child and the organization of the family.] *Acta neuropsiquiat. Argent.*, 1961, 7(3), 197-198.—The presence in the family of a child handicapped for either physical or mental reasons creates tremendous conflicts and an atmosphere of tension in the family. Some of the effects on the nuclear family and their dynamics are discussed.—*W. W. Meissner*.

1593. Garelli, Maritha; Meyer, Jeannine, & Rossi, Pierrette. *Du réel à l'imaginaire*. [From the real to the imaginary.] *Enfance*, 1961, No. 4-5, 361-401.—Children who have had poliomyelitis present the problem of how development of intelligence, perception, and affectivity may best be fostered in a hospital environment. A picture-story test was used with 60 boys and 60 girls, ages 6-11½, who were hospitalized, and a like number of children of the same ages who were attending school and who were not handicapped. The significant differences supported the conclusions that the handicapped suffer from environmental impoverishment and associated disinterest. Reduced ability to manipulate objects and move about contributes to an unreal view of the environment and reliance upon a life of reflection. Pessimism is noted especially in the stories of older girls. Extensive tabulation of results is included.—*S. S. Marzolf*.

1594. Garelli, Maritha, & Pousseur, Nicole. *Ré-éducation et rééducateurs*. [Re-education and re-educators.] *Enfance*, 1961, No. 4-5, 381-401.—The attitude of the handicapped person toward his handicap, his re-education, and his return to a more or less normal life depends much upon the attitudes of re-educators. The latter were surveyed with a questionnaire concerning their observations of an experimental group of 60 boys and 60 girls ages 6-12, (hospitalized post-poliomyelitis patients) and a similar group of 45 boys and 45 girls above 12 years old. The results are considered useful in helping the re-educators realize how important their own attitudes are in the rehabilitation process.—*S. S. Marzolf*.

1595. Holden, Raymond H. (Meeting Street School Children's Rehabilitation Center, Providence, R. I.) *Changes in body image of physically handicapped children due to summer camp experience*. *Merrill-Palmer Quart.*, 1962, 8(1), 19-26.—Body image changes were inferred from changes in global ratings of human figure drawings. Changes in counselors' ratings on behavior rating scales correlated significantly with judges' choice of better figure drawings. (20 ref.)—*E. L. Robinson*.

1596. Holden, Raymond Henry. (Boston U.) *Changes in body imagery of physically handicapped children due to summer camp experience*. *Dissert. Abstr.*, 1961, 21(10), 3165.—*Abstract*.

1597. Irwin, Jack Menzenwerth. (Cornell U.) *A study of certain personal and social factors differentiating the nonevidently handicapped from the physically normal adolescent*. *Dissert. Abstr.*, 1961, 21(12), 3582-3583.—*Abstract*.

1598. Johnson, Orval G., & Wawrzaszek, Frank. (Lewis County Schools) *Psychologists' judgments of physical handicap from H-T-P drawings*. *J. consult. Psychol.*, 1961, 25(4), 284-287.—House-Tree-Person ratings of 9 psychologists were more closely related to Goodenough score than to the proposed identification of the handicapped child. Significant postdiction of matched pairs required pooling of all judgments.—*E. R. Oetting*.

1599. Lefevre, Lucien. *Les problèmes d'adaptation scolaire posés par les adolescents poliomyélitique*. [Problems of scholastic adaptation posed by poliomyelitic adolescents.] *Enfance*, 1961, No. 4-5, 423-460.—Preliminary review of an extensive study in progress suggests that the adolescent's concern with the degree of his recovery and the energy expended in physical therapy make scholastic instruction difficult. Nevertheless, followup data are encouraging.—*S. S. Marzolf*.

1600. Moed, George; Wight, Byron W., & Vandegrift, Harvey N. (Children's Seashore House, Atlantic City, N. J.) *Studies of physical disability: Reliability of measurement of skeletal age from hand films*. *Child Developm.*, 1962, 33(1), 37-41.—"Several clinicians and academicians read the same set of hand films twice each for skeletal age. Within-judge, between-judge, and between-standards reliability was studied. Although correlations were high, median discrepancies small, and there were no constant directional errors of reading, a few discrepancies were large. Implications of these results for clinical and research work are discussed."—*W. J. Meyer*.

1601. Prechtl, H. F. R., & Stemmer, C. J. (U. Groningen, The Netherlands) *The choreiform syndrome in children*. *Develpm. Med. child Neurol.*, 1962, 4(2), 119-127.—Extensive case history and neurophysiological data were obtained on 50 children, aged 9-12 years, who presented choreiform but no other obvious neurological signs or gross psychiatric symptoms. Electromyographic and gross behavioral findings are reported. In 92% of the children eye muscles also were affected; 90% of the children, all with eye muscle involvement had "more or less severe reading difficulties." For 66% of the group, there had been one or more obstetrical or postnatal problem; the possibility of such problems was suggested in an additional 12%. "The choreiform syndrome seems to be a form of minimal brain damage and falls, by definition, into the category of cerebral palsy. No successful form of drug therapy has yet been discovered."—*T. E. Newland*.

1602. Rossi, Pierette. *L'adaptation psychologique de l'enfant au travail scolaire*. [Psychological adaptation of the child to school work.] *Enfance*, 1961, No. 4-5, 403-421.—Case studies of 39 boys and 37 girls, ages 5-12, led to the conclusion that in spite of many unfavorable factors encountered in long hospitalization (all were hospitalized post-polio-

myelitis patients), the majority of children readjust very well, and that contact with reality is facilitated by assistance of personnel from outside the hospital.—S. S. Marzolf.

1603. Simmel, Marianne L. (New School Social Research, NYC) **Phantom experiences following amputation in childhood.** *J. Neurol. Neurosurg. Psychiat.*, 1962, 25, 69-78.—"Data from several groups of young amputees indicate that phantoms are rarely reported if the amputation was performed before the age of 4 years; thereafter, their incidence increases, and phantoms follow predictably upon amputation at or above 8 years. . . . In a group of children who had undergone amputation of congenitally malformed extremities it could further be shown that phantoms occur only if there has been some sensory and/or motor function before the loss of the misshapen limb. It was suggested that the crucial variable here is kinaesthetic and/or deep pressure sensitivity. These findings were shown to support the hypothesis that the body schema which gives rise to the amputation phantom is basically a postural schema." (31 item-bibliogr.)—M. L. Simmel.

1604. Smith, Alathena Johnson. (Ohio State U.) **Performance of subjects aged two to four on non-verbal tasks presented in pantomime: A phase in the development of a test for the clinical appraisal of hypacoustic and other language-handicapped children.** *Dissert. Abstr.*, 1961, 21(11), 3529.—*Abstract.*

1605. Sopp, H. (Bismarckstr. 43, Düsseldorf, Germany) **Sozialanalyse des Krankenstandes.** [Social analysis of disability.] *Z. psycho-som. Med.*, 1961, 7(3), 204-207.—During economic booms an overall numerical increase in disabilities may be due to (a) increased hazards caused by increased industrial productivity and stepped-up working demands, with their pathogenic effects on the human organism or (b) the wish for income without work. Disability does not represent sickness in the classic sense of the word but a disturbance in well-being projected into the sphere of somatic feeling. The introduction of social-psychological teleology into the etiology of trivial industrial sicknesses is in contradiction to the accepted medical category of causality. More field work must be done to clarify the relation between the social sphere and medical disability.—I. Neufeld.

1606. Ventur, Pierre August. (Columbia U.) **Some effects of upper extremity prosthetic restoration.** *Dissert. Abstr.*, 1961, 21(12), 3858-3859.—*Abstract.*

1607. Worden, Don Keith. (Western Reserve U.) **The intelligence of boys with muscular dystrophy.** *J. consult. Psychol.*, 1961, 25(4), 369.—The Stanford-Binet, Oral Reading Test, Metropolitan Achievement Test in Arithmetic Fundamentals, were used with pseudohypertrophic muscular dystrophy, amyotonia congenita, diabetic, and diabetic-sibling children. ". . . intellectual deficit seems specifically associated with the factor of having PMD."—E. R. Otting.

Blindness

1608. Hunter, William F. (Michigan State U.) **An exploratory analysis of space perception in congenitally blind and sighted individuals.** *Dissert. Abstr.*, 1961, 21(11), 3530-3531.—*Abstract.*

Deafness

1609. Brill, Richard G. (California School for the Deaf, Riverside, Calif.) **The relationship of Wechsler I.Q.'s to academic achievement among deaf students.** *Except. Child.*, 1962, 28, 315-321.—A statistical study of IQs of deaf children at the California school found that these scales (WISC or WAIS) discriminate well "in terms of ultimate academic achievement of these pupils. The mean intelligence of groups of students receiving academic diplomas, vocational diplomas, or certificates of completion differed significantly. It was also shown that in order to attain an academic diploma a deaf student must be well above average in intelligence and he must fall within the average range to obtain a vocational diploma."—J. Z. Elias.

1610. Falberg, Roger M. (Wichita, Kansas) **An adventure into adult education of the deaf.** *Amer. Ann. Deaf*, 1962, 107(3), 329-338.—Illustratively described in some detail is a 16-week program provided for a group of 9 deaf adults, aged 26-47.—T. E. Newland.

1611. Fuller, Carl W. (Indiana U. Medical Cent., Indianapolis) **Your child, maturity, and you: A talk to parents.** *Amer. Ann. Deaf*, 1962, 107(3), 320-328.—Playing an important role in the extent to which deafness handicaps a child are the parental attitudes (attitude of acceptance and attitude of objectivity) and the child's attitudes (attitude of independence and attitude of confidence) which are operative.—T. E. Newland.

1612. Furth, H. G. (Catholic U. America) **The influence of language on the development of concept formation in deaf children.** *J. abnorm. soc. Psychol.*, 1961, 63(2), 386-389.—To isolate the effect of language development on the development of thinking, children between 7 and 12 who had been deaf since an early age were presented with 3 tasks assessing conceptual functioning. Their performance was compared to that of a relatively comparable group of "hearer." The results indicated that the lack of a capacity to verbalize did not, in itself, interfere with a general capacity for abstract conceptualization.—G. Frank.

1613. Huntington, D., & Ross, M. **The reliability and equivalency of the CIDW-22 Auditory Tests.** *USAF SAM Rep.*, 1962, No. 61-110. 6 p.—33 adult Ss with sensorineural hearing loss were tested for hearing with Lists 1, 2, 3, and 4 of the CIDW-22 Auditory Tests. After a short rest period the Ss were tested again. Reliability coefficients of all the lists were higher than .90. Statistically different mean differences occurred between scores obtained with Lists 1 and 3, 1 and 4, and 2 and 4. The magnitude of the differences among the lists is probably not great enough to be considered clinically, but it should be taken into account in research efforts.—M. C. Payne, Jr.

1614. Ickes, William K. (Des Moines Hearing & Speech Center) **An accuracy indicator for testing hearing.** *J. speech hear. Disord.*, 1962, 27(2), 144-149.—3 adult males and 17 females, with a mean age of 38.1 years, were compared on the basis of results from 2 different hearing tests, one with an "accuracy" indicator and another with a "semantic" indicator. The "accuracy" indicator consisted of a series of 4 lights with the Ss instructed to raise their hands

when the lights were turned on and to indicate the number of the light which was on when the sound was present. The "semantic" parameter was the usual audiometric response of raising hand. The "accuracy" indicator was a better measure of sensory function than the "semantic" indicator and sometimes resulted in lowering mean thresholds as much as 6.5 db.—*M. F. Palmer.*

1615. Jerger, James. (Gallaudet Coll.) **Hearing tests in otologic diagnosis.** *ASHA*, 1962, 4(5), 139-145.—Hearing tests are necessary adjuncts to otological diagnosis, but no single test is accurate enough to do the task alone. A very useful multiple-test battery consists of SISI, Bekesy Audiometry, and the ABLB Test.—*M. F. Palmer.*

1616. Kates, Solis L., Yudin, Lee, & Tiffany, Ronald K. (U. Massachusetts) **Concept attainment by deaf and hearing adolescents.** *J. educ. Psychol.*, 1962, 53(3), 119-126.—The purpose was to investigate concept attainment by deaf and hearing adolescents. There were 30 deaf Ss matched first with 30 hearing Ss on sex, age, and IQ and then with 30 hearing Ss on sex, school achievement, and IQ. All Ss were tested individually on 6 concept problems. The conclusions were: (a) deaf Ss manifest capability equal to hearing Ss in tying together sensory impressions and in making use of these integrated sensory impressions to classify new objects, (b) deaf Ss show greater cautiousness in taking the initial step in problem solving, (c) deaf and hearing Ss proceed in concept attainment tasks by the use of similar strategies.—*Journal abstract.*

1617. Mira, Mary P. (U. Kansas Medical Cent.) **The use of the Arthur Adaptation of the Leiter International Performance Scale and the Nebraska Test of Learning Aptitude with pre-school deaf children.** *Amer. Annals Deaf*, 1962, 107(2), 224-228.—Test-retest data on 18 children showed a statistically significant (.016 level of confidence) increase in IQ over a time interval of roughly 1.5 years. 9 of the children had gains of 10-60 IQ points. The possibility of a clinical selective factor contributing to this condition is recognized. Leiter-Nebraska IQ's correlated .77 on 60 cases, the average 12 points higher than the Leiter (with roughly comparable sigmas). 36 of the children earned Nebraska IQs 10-30 points higher than the Leiter; in 3 instances, the Nebraska IQs were 10-20 points lower.—*T. E. Newland.*

1618. Nagel, Robert F. (School Medicine, Yale U.) **Audiology and education of the deaf.** *J. speech hear. Disord.*, 1962, 27(2), 188-190.—The 1961 directory of the American Speech and Hearing Association indicates there are approximately 360 persons in the United States certified in the area of hearing. Not one of these persons was required to complete any academic course work related to the deaf. Audiologists should become familiar with the techniques of education of the deaf at all levels.—*M. F. Palmer.*

1619. Reed, G. F. (U. Manchester) **Psychogenic deafness, perceptual defense, and personality variables in children.** *J. abnorm. soc. Psychol.*, 1961, 63(3), 663-665.—"Survey of a child guidance population showed that of 26 functionally hard-of-hearing cases, 14 presented elevated thresholds for pure tones but were within normal limits for speech. The other

group, though normal on pure-tone testing, presented elevated thresholds for all speech, rather than for relatively threatening stimuli. It would appear that both groups were reactive to situations, as opposed to specific auditory stimuli within those situations. Furthermore the majority of the pure-tone group were clinically classified as 'hysteric,' whereas the majority of the speech group was classed as 'anxiety state.' The applicability of 'defense' theories to such cases is discussed.—*G. Frank.*

1620. Stafford, Kenneth. (Arizona State U.) **Problem-solving ability of deaf and hearing children.** *J. speech hear. Res.*, 1962, 5(2), 169-172.—16 congenitally deaf boys and 13 congenitally deaf girls, ranging in age from 6 to 17 years and in mental age from 6 to 21 years, were matched with hearing children according to IQ, age, and sex, and their performances on a problem box compared. The performance of the hearing children was better except in one comparison, namely, that in which the deaf in the highest third of the chronological-age, mental-age range solved the same problems more readily.—*M. F. Palmer.*

1621. Wodin, Martin Henry. (New York U.) **An examination of perceptual and cognitive rigidity in deaf adolescent boys.** *Dissert. Abstr.*, 1961, 22(1), 329.—*Abstract.*

SPEECH DEFECTS

1622. Aron, Myrtle L. (U. Witwatersrand, Johannesburg) **The nature and incidence of stuttering among a Bantu group of school-going children.** *J. speech hear. Disord.*, 1962, 27(2), 116-128.—The incidence and nature of stuttering was explored among 3105 male and 3476 female Bantus attending the schools in Orlando Township, Johannesburg, South Africa. The total number of Ss interviewed and established as being stutterers was 83, consisting of 62 males and 21 females. Percentage incidence of stuttering for school population was 1.26. Terms to describe stuttering were present in the various Bantu languages. Some secondary differences were observed in the accompanying struggle reactions in scholastic retardation and in the occupations of the parents of African stutterers. There are, however, no significant differences from western European populations.—*M. F. Palmer.*

1623. Bas, Edin. **Hayeled hailmi vedarkhey horaato.** [The aphasic child and ways to teach him.] *Hahinukh*, 1961-62, 34, 145-146.—Recently in the United States, aphasic children have been grouped in special classes apart from deaf children. W. C. Bargert's experiences are described. Disturbances in reading, pronouncing, and writing are analyzed; and ways of moving slowly from methods used with deaf children to those used with normal children are suggested.—*H. Ormian.*

1624. Dickson, David Ross. (Northwestern U.) **An acoustic study of nasality.** *J. speech hear. Res.*, 1962, 5(2), 103-111.—20 speakers classified as having functional nasality and 20 speakers with cleft palates were compared with 20 normal adult males on the nasality present in the vowels (i) and (u), each vowel being preceded by a carrier wave. No means were found to differentiate nasality in cleft-palate and non-cleft-palate individuals either in terms of their acoustic spectra or the variability of the nasality

judgments. 3 basic factors were inconsistently related to the nasal vowel spectra. These were loss of power, increased damping, and the addition of resonance and antiresonance.—*M. F. Palmer.*

1625. Engelberg, Marvin. (VA, Cleveland, O.) **Correction of falsetto voice in a deaf adult.** *J. speech hear. Disord.*, 1962, 27(2), 162-164.—Success in the correction of a falsetto voice in a deaf adult came from explaining through visual, tactile, and kinesthetic stimuli the differences in the physiological functionings of the vocal musculature between falsetto and normal pitch levels and utilizing vocal retraining techniques. The S was told that the larynx moved upward with an increase in pitch. There is relatively more perceptible chest resonance at lower pitches than at higher ones and relatively more perceptible resonance and kinesthetic stimuli at lower pitches than at higher ones. Hyperextension of the head was used, phonating in lower pitches, phonating in highest pitches, and dropping suddenly to the lowest pitch with relaxation. Relaxed phonation stressed continually.—*M. F. Palmer.*

1626. Froeschele, Emil. (Grand Central Hosp., NYC) **A survey of European literature in speech and voice pathology.** *ASHA*, 1962, 4(6), 172-181.—Review of European literature on speech and voice pathology. (200 ref.)—*M. F. Palmer.*

1627. Gardner, Warren H. (Cleveland Clinic Found.) **The whistle technique in esophageal speech.** *J. speech hear. Disord.*, 1962, 27(2), 187-188.—Use of a whistle blowing 1 blast for "yes" and 2 for "no" gives a good idea in esophageal speech techniques to the patient of how to store and use compounded air.—*M. F. Palmer.*

1628. Goda, Sidney. (Burke Found. Rehabilitation Center, White Plains, N. Y.) **Spontaneous speech, a primary source of therapy material.** *J. speech hear. Disord.*, 1962, 27(2), 190-192.—It is practical to use the spontaneous samples of dysarthric and aphasic adults as the material for developing clinical sessions. The clinician is urged not to rely on drill materials prepared for mass usage.—*M. F. Palmer.*

1629. Hill, Milton J., & Hagerty, Robert F. (Medical Coll. South Carolina) **Speech following pharyngoplasty in postoperative cleft palate subjects.** *J. speech hear. Res.*, 1962, 5(2), 179-184.—Lateral skullfilms and speech samples were obtained of 20 Ss with postoperative cleft palates before pharyngoplasty, one month after, and one year later. The amount of improvement in velopharyngeal contact was determined by measurements of tracings. The results indicate that forward displacement of the pharyngeal wall is an effective procedure for improving velopharyngeal contact and speech of Ss with postoperative cleft palates.—*M. F. Palmer.*

1630. Keenan, Joseph S., & Barret, George C. (Hearing & Speech Center, North Carolina Baptist Hosp.) **Intralaryngeal relationships during pitch and intensity changes.** *J. speech hear. Res.*, 1962, 5(2), 173-178.—6 male and 6 female college Ss ranging in age from 19 to 29 years were studied for vertical movements of the larynx in pitch and intensity changes. Measurements taken suggest that pitch is dependent upon length of the vocal bands, but not upon the vertical position of the larynx. There may

also be important sex differences of laryngeal function in producing intensity changes.—*M. F. Palmer.*

1631. Moore, G. Paul; White, Frazer D., & von Leden, Hans. (Northwestern U.) **Ultra high speech photography in laryngeal physiology.** *J. speech hear. Disord.*, 1962, 27(2), 165-171.—Description of the techniques of high speed photography and laryngeal physiology. Such photography has proved a valuable technique in research as well as in clinical diagnosis and therapy.—*M. F. Palmer.*

1632. Morris, Hughlett L. (U. Iowa) **Communication skills of children with cleft lips and palates.** *J. speech hear. Res.*, 1962, 5(1), 79-90.—107 children with cleft lips and palates were compared to appropriate norms on 17 language and nonlanguage variables. There were no significant differences in communicative abilities between children with cleft lips and palates and children with cleft palates only. The cleft-lip-and-palate children were significantly retarded in communicative skills. There were no differences between the cleft-lip-and-palate and cleft-palate-only groups in strength of relationships among the variables. Significant intercorrelations were obtained among measures of communicative skill, but no single measure could be used as an index of general status of language development.—*M. F. Palmer.*

1633. Powers, Gene R. (U. Connecticut) **Cine-fluorographic investigation of articulatory movements of selected individuals with cleft palates.** *J. speech hear. Res.*, 1962, 5, 59-69.—"Factors [were investigated] . . . which might differentiate individuals with cleft palates who had similar velopharyngeal adequacy, as determined from single-exposure X-ray films, but who had dissimilar articulation ability. . . . 14 Ss were tested and, on the basis of single-exposure X-ray data, placed in a good closure (Group A) or poor closure (Group B) group. . . . Systematic differences between the Ss in Group A were observed in oral structure ratings, site of velopharyngeal closure, tongue carriage, and mouth opening. Differences between the Ss in Group B were observed in alar constrictions, oral breath pressure, patterns of tongue movements, tongue carriage, and mouth opening.—*M. F. Palmer.*

1634. Prins, T. David. (U. Michigan Speech Clinic) **Analysis of correlations among various articulatory deviations.** *J. speech hear. Res.*, 1962, 5(2), 152-160.—92 children between the ages of 3 and 7 years with defective articulation, no organic deviations, and IQs of 85 or above were studied for correlations among measures based upon 28 specific types of articulatory deviations and 2 selected non-speech variables—socioeconomic status and intelligence. There was a heterogeneity within the experimental population. 3 subgroups were identified by clinically familiar articulatory deviations: Group 1, the interdentalization of (s) and (z); Group 2, omission-type deviations; Group 3, phonemic sound substitutions.—*M. F. Palmer.*

1635. Prins, T. David. (U. Michigan Speech Clinic) **Motor and auditory abilities in different groups of children with articulatory deviations.** *J. speech hear. Res.*, 1962, 5(2), 161-168.—92 children with defective articulation ranging in age from 3 through 6 years, misarticulating a minimum of 3 consonant sounds without any known organic deviation, normal hearing sensitivity, and normal IQs,

were studied in relationship to motor and auditory test scores, socioeconomic status, and intelligence. There was a heterogeneity of the population. There was depressed performance in selected motor skills and digit span related to omission-type articulatory errors with an additional depression of socioeconomic status and intelligence.—*M. F. Palmer.*

1636. Ruben, Henry J., & Lehrhoff, Irwin. (Cedars Lebanon Hosp., Los Angeles) Pathogenesis and treatment of vocal nodules. *J. speech hear. Disord.*, 1962, 27(2), 150-161.—Vocal nodules may indeed be the classically described small fibrous tumefactions on the margins of the vocal folds. They also may not be, since there is much variation in size, shape, consistency, color, mobility, location, and histopathologic composition, with further dissimilarity in etiology and preferential management. Suggestions for therapy are given. The term "vocal nodules" is a useful one but meaningful only if rightly comprehended.—*M. F. Palmer.*

1637. Sheehan, Joseph G., Cortese, Peter A., & Hadley, Robert G. (U. California, Los Angeles) Guilt, shame and tension in graphic projections of stuttering. *J. speech hear. Disord.*, 1962, 27(2), 129-139.—48 stutterers, ranging in age from 11 to 44 and containing 36 males and 12 females, were asked to draw what they felt to be their behavior before, during, and after a moment of stuttering. Results were presented separately and at random. 6 speech therapist judges and 6 classroom teacher judges rated drawings as to degree of guilt, tension, shame, and dejection. Guilt appeared at all 3 points of stuttering sequence, especially marked in periods after blocks. Greatest amount of tension occurred during the block and least after increases in shame. Dejection frequently occurred after stuttering. There were marked differences in individual patterns.—*M. F. Palmer.*

1638. Sherman, Dorothy, & Jensen, Paul J. (U. Iowa) Harshness and oral-reading time. *J. speech hear. Disord.*, 1962, 27(2), 172-177.—15 adult males with harsh voices were matched with 15 normals reading orally at conversational level for 1½ hours followed by ½ hour of silence. The harsh-voice group showed no noticeable change in severity of perceived harshness over the periods of oral reading and silence.—*M. F. Palmer.*

1639. Sommers, Ronald K. (Montgomery County, Pa.) Factors in the effectiveness of mothers trained to aid in speech correction. *J. speech hear. Disord.*, 1962, 27(2), 178-186.—8 experimental groups of 10 children each were given the McDonald "deep test" of articulation before and after a period of speech correction. A 3-way analysis of variance indicated, in general, that Ss whose mothers were trained to assist in the correction of misarticulations made greater progress than Ss whose mothers were not trained. Children with higher IQs made more progress than those in the slow learning group. No significant "therapy techniques" were shown by analysis of variance. Measures of the auditory discrimination abilities of the mothers were found to be significantly correlated ($r = .63$) with the amount of improvement shown.—*M. F. Palmer.*

1640. Wingate, M. E. (U. Washington) Evaluation and stuttering: Part I. Speech characteristics of young children. *J. speech hear. Disord.*, 1962, 27(2), 106-115.—A critical review of the evaluational

theory of stuttering, particularly as it refers to the evidence on the speech characteristics of young children and the use of the data so far as support for the theory. Evidence is contrary to the hypothesis that stuttering is the result of some type of evaluation by parents and others.—*M. F. Palmer.*

NEUROLOGICAL DISORDERS

1641. The Ad Hoc Committee on Classification of Headache. Classification of headache. *Arch. Neurol.*, 1962, 6, 13-16.—A special report attempting to relate types of headache to the patient's life situation. It contains a 15-point classification of headaches as "principal manifestation of temporary or sustained difficulties in life adjustment."—*R. Gunter.*

1642. Baldwin, Maitland. (National Inst. Health, Bethesda, Md.) Hallucinations in neurological syndromes. In Louis West (Ed.), *Hallucinations* (see 37: 1588). Pp. 77-85.—Examples of hallucinations occurring in neurologic patients with reference made to epilepsy, temporal lobe lesions and tumors, and electrical stimulation of the temporal cortex.—*J. B. Thompson.*

1643. Chessick, Richard D., & Bolin, Richard R. (VA Hosp., Chicago) Psychiatric study of patients with psychomotor seizures. *J. nerv. ment. Dis.*, 1962, 134(1), 72-79.—"A number of characteristic features were found in a study of 11 patients with 'psychomotor epilepsy.' These were a traumatic early history, a struggle with unresolved conflicts centering around dependency needs, easily aroused rage and destructive impulses which were poorly integrated, lability of affect, an impoverishment of the ego from excessive repression, strong tendencies to deny and project, and a resulting physiologic and psychologic rigidity manifested in everyday thinking and acting."—*N. H. Pronko.*

1644. Colver, T., & Kerridge, D. F. (U. Sheffield, England) Birth order in epileptic children. *J. Neurol. Neurosurg. Psychiat.*, 1962, 25, 59-62.—From all patients diagnosed as epileptics in one hospital between 1947 and 1954, all 1st and 2nd born epileptics were selected for study using 2nd born as a control for 1st born and 1st born as a control for 2nd born. Only cases having suffered convulsions on at least 10 separate days were included, and only pairs observed the same length of time from birth were included. This selection yielded 174 pairs of epileptic cases and their controls, containing 106 1st born epileptics and 68 2nd born epileptics. Breakdown by age of onset revealed 56 1st born and 28 2nd born with onset prior to age 2 years; N was too small for other comparisons. The authors conclude that epilepsy is more frequent in 1st born than in 2nd born children.—*M. L. Simmel.*

1645. Gordon, Neil. (Royal Manchester Children's Hosp.) The investigation of epilepsy. *Dev. Med. Child Neurol.*, 1962, 4(2), 170-179.—The merits and limitations of diagnostic approaches by means of the EEG, by biochemical, neurophysiological, and other procedures are discussed. The necessity in certain areas of repeated studies over a period of time is indicated. (25-item bibliogr.)—*T. E. Newland.*

1646. Klob, Lawrence C. (Columbia U.) Phantom sensations, hallucinations and the body image.

In Louis West (Ed.), *Hallucinations* (See 37: 1588). Pp. 239-246.—"A brief description of the phenomenology of body phantoms, their known frequencies of occurrence after a loss of a body part, a statement of the conditions under which they are not observed, and a brief comment on the physiologic and psychological substratum."—J. B. Thompson.

1647. Magnus, Otto; deVet, A. C., van der Marel, A., & Meyer, E. (Wassenaar, The Netherlands) **Electrocorticography during operation for partial epilepsy.** *Develpm. Med. child. Neurol.*, 1962, 4(1), 35-48.—Electroencephalography and electrocorticography "provide a valuable clinical and neurophysiological approach, but they have not led to the safe and easy detection and extirpation of 'the epileptic focus.' A considerable portion of carefully selected patients . . . may benefit from operation with the aid of neurophysiological methods of investigation. . . . A quantitative factor seems to be involved."—T. E. Newland.

1648. Melin, Karl-Axel. (Stockholm-Farsta, Sweden) **EEG and epilepsy in cerebral palsy.** *Develpm. Med. child Neurol.*, 1962, 4(2), 180-183.—"The incidence of epilepsy in cases of cerebral palsy is variously estimated at 14 to 75 percent—it being much higher in spastic than in choreo-athetoid cases. . . . Serial, as distinct from single, EEG records are of considerable value. . . . Cerebral palsied children who have one or more fits but show repeatedly normal EEGs commonly develop without any further convulsions."—T. E. Newland.

1649. Tikofsky, Ronald S., & Reynolds, Gale L. (U. Michigan) **Preliminary study: Non-verbal learning and aphasia.** *J. speech hear. Res.*, 1962, 5(2), 133-143.—The nonverbal learning behavior of 15 aphasic Ss was compared to 20 nonaphasic Ss on a modification of Grant's Wisconsin Card-Sorting Task, Form XX. The aphasic's learning rate is slower than that of the nonaphasic with perseverative error a major determinant of the lowered rate.—M. F. Palmer.

1650. Wright, George N., Gibbs, Frederic A., & Linde, Shirley Motter. **Total rehabilitation of epileptics: Gateway to employment.** (Washington, D. C.: Office Vocational Rehabilitation, 1962. xv, 207 p. \$1.25.—An edited report of papers and discussions of the 1st national institute on the total rehabilitation of epileptics held May 25-27, 1960 in Chicago. The papers are grouped in 4 chapters: "Toward a Better Understanding," "The World of the Epileptic," "Evaluating the Epileptic and His Disorder," and "Rehabilitation Performance." Appendices include a Table of Antiseizure Drugs, Films on Epilepsy, and a 122-item bibliography.—B. Lowenfeld.

Brain Damage

1651. Angelergues, R., de Ajuriaguerra, J., & Hécaen, H. (Hôpital St. Anne, Paris, France) **La négation de la cécité au cours des lésions cérébrales.** [Denial of blindness in patients with cerebral lesions.] *J. Psychol. norm. pathol.*, 1960, 57(4), 381-404.—The authors reconsider systematically the question of anosognosia of blindness due to pre- and postchiasmic lesions. In addition to those in the earlier literature, 5 new cases are presented in detail.—M. L. Simmel.

1652. Belmont, Ira, & Birch, Herbert G. (Hillside Hosp., Glen Oaks, N. Y.) **"Productivity" and mode of function in the Rorschach responses of brain-damaged patients.** *J. nerv. ment. Dis.*, 1962, 134(5), 456-462.—"When the amount of productivity on the Rorschach test was related to qualitatively different levels of perceptual functioning revealed by Rorschach testing, it was shown that, for brain-damaged patients, using a neurologically normal control group as a standard, low productivity was associated with 1) a high percentage of reported specific and clear perceptions, 2) a small number of defectively analyzed percepts, and 3) a tendency to accept verbally suggested visual perceptions. High productivity was associated with the opposite qualities."—N. H. Pronko.

1653. Benton, Arthur L. (State U. Iowa) **Behavioral indices of brain injury in school children.** *Child Develpm.*, 1962, 33(1), 199-208.—A critical review of the prevailing views concerning brain damage in children suggests some problems. One of the more predominant of which is the tendency for clinicians to think in terms of "the behavioral symptom-complex of the brain damaged child"; a conceptualization which is not consistent with the data. A 2nd problem is the response-response nature of diagnosing brain damage as opposed to a "state of the organism-response" approach.—W. J. Meyer.

1654. Chernova, A. D. **Vosstanovlenie rechi pri zabelevaniiakh golovnogo mozga.** [The restoration of speech in diseases of the brain.] Moscow, USSR: Medgiz, 1958. 119 p.—This book discusses the problems and methods of speech restoration and related functions, summarizing thereby the results of 20 years' work with approximately 400 patients suffering from various forms of aphasia.—I. D. London.

1655. Clawson, A. (Wichita Guidance Center) **Relationship of psychological tests to cerebral disorders in children: A pilot study.** *Psychol. Rep.*, 1962, 10(1), 187-190.—"A battery of 22 tests was administered individually to 10 brain-damaged children, 10 clients of a guidance center, and 10 children chosen by their schools as 'normal.' All children were of average or above intelligence, ages ranged from 8-0 yr. to 13-0 yr., and groups were matched for age and intelligence. Scores on seven tests differentiated among groups or seemed worthy of further study: Wechsler Intelligence Scale for Children, Wide Range Achievement, Draw-A-Man, Wichita Guidance Center Sorting Test, Bender-Gestalt, Right-Left Discrimination, and Finger Localization."—B. J. House.

1656. Jerger, James, & Walker, Jesse. (Auditory Research Lab., VA) **Some observations on masking and on the progression of auditory signs in acoustic neurinoma.** *J. speech hear. Disord.*, 1962, 27(2), 140-143.—A single patient studied over a 2-year period prior to the surgical removal of an acoustic tumor showed a fairly consistent pure-tone audiogram, but the PB score deteriorated substantially and the Bekeasy audiogram changed from Type I to Type III. Attempts to demonstrate anything unusual in the pure-tone masking produced by thermal noise on this ear were unsuccessful.—M. F. Palmer.

1657. Kent, Eric G. (Florida State U.) **Binaural beats: Their perception by individuals with and without organic brain pathology.** *Dissert. Abstr.*, 1961, 21(12), 3854.—Abstract.

1658. Lawson, Ian R. (Woodend General Hosp., Aberdeen, Scotland) **Visual-spatial neglect in lesions of the right cerebral hemisphere.** *Neurology*, 1962, 12, 23-33.—". . . visual-spatial neglect involves an additional incapacity toward visual space, for, whereas the patient with simple hemianopsia is able to use the intact parts of the visual fields to scan to the affected side, the patient with visual-spatial neglect fails to do so. . . . This paper is a report of two patients who suffered from visual-spatial neglect, which materially interfered with their ability to read. Its evidence derives primarily from the endeavor of training them to read correctly again. The attempt met with a partial and selective success, which was found to be conditional, firstly, on the nature and arrangement of the visual material presented to the patient and, secondly, on the extent to which vision, particularly scanning ability, could be reinforced by other sensory channels."—R. Gunter.

1659. Lehtinen, Laura Elizabeth. (Northwestern U.) **Performance of minimally brain-damaged and normal children on a simple discrimination learning task.** *Dissert. Abstr.*, 1961, 21(10), 3166.—*Abstract*.

1660. Neal, Elizabeth. **One of those children.** New York: Taplinger, 1962. 199 p. \$4.50.—A biographical account of a brain-damaged boy with IQ too low for ordinary schooling in Great Britain, and the sensitive reactions of his mother to the problems involved in identification, the daily concerns about safety and about training, the occasional successes she had as tutor and their greater frequency as she became more insightful and skillful, her reactions at abandoning her own ambitions, and how she managed the potentiality of sibling rivalry with the boy's older brother and exploited the situation for personality growth of all the family.—W. L. Wilkins.

1661. Paine, Richmond S. (Harvard Medical School) **Minimal chronic brain syndromes in children.** *Develpm. Med. child Neurol.*, 1962, 4(1), 21-27.—Out of 41 children referred for neurological consultation because of poor school work, clumsiness, poor speech, or emotional problems (none of whom had previous definite diagnosis of neurological abnormality), 31 showed definite abnormal neurological signs, with 9 of the other 10 at least excessively clumsy. "It is suggested that there is a syndrome of minimal brain damage, with subclinical affections" in motor, mental, sensory, and convulsive areas.—T. E. Newland.

1662. Smith, J. Lawton. (Duke U. School Medicine) **Vertical optokinetic nystagmus.** *Neurology*, 1962, 12, 48-52.—"Vertical and horizontal optokinetic responses have been routinely investigated in a series of over 300 patients seen in neuro-ophthalmologic consultation in Duke Hospital between July 1960 and June 1961. From this clinical material, 6 abnormal types of vertical optokinetic responses have been thus far recognized and are here reported with comments on their value in neuro-ophthalmologic diagnosis. . . . Pathways involved in optokinetic nystagmus in general await clarification, and clinical anatomic correlation is needed in this field. This is even more the case with regard to the vertical optokinetic responses, which have attracted little attention."—R. Gunter.

1663. Teuber, Hans-Lukas, & Rudel, Rita G. (Massachusetts Inst. Technology) **Behavior after**

cerebral lesions in children and adults. *Develpm. Med. child Neurol.*, 1962, 4(1), 3-20.—"Animal experiments tend to show that brain injuries sustained early in life have less effect than comparable lesions incurred at later stages. By contrast, neurological observations suggest that certain forms of early brain damage in children may have disproportionately serious consequences for later development. The apparent contradiction may be resolved if one grants that results might differ, according to (a) the kind of task employed, and (b) the age at which the child is tested. Three perceptual tasks have been devised which disclose such differential effects." Responses were obtained from 232 brain-wounded males, a control group of men, and a group of brain-injured children (the latter over a period of 10 years). "On one task [determining auditory midline], the effects of early injury are not apparent before the age of 11 years, but become increasingly obvious thereafter. On the second [determining the starting point of an auditory stimuli], a deficit is manifest at all ages. The third [self-righting] reveals effects of early injury only up to the age of 11 years; no abnormality can be discovered after this age." (28-item bibliogr.)—T. E. Newland.

1664. Vaughan, Herbert G., & Costa, Louis D. (Albert Einstein Coll. Medicine, Bronx, N. Y.) **Performance of patients with lateralized cerebral lesions. II: Sensory and motor tests.** *J. nerv. ment. Dis.*, 1962, 134(3), 237-243.—"Thirty-five Ss with lateralized cerebral lesions (17 with left-sided lesions, 18 with right-sided), and 18 controls, were given four tests of somesthetic and motor function: pressure threshold, two-point discrimination, finger oscillation and Purdue Peg Board. The 18 Ss with right cerebral lesions, both individually and as a group, demonstrated significantly greater impairment of function than did Ss with left cerebral lesions. The group with right cerebral lesions also appeared to contain more Ss with severe and extensive lesions (on the basis of EEG data)."—N. H. Pronko.

1665. Weinstein, Edwin A., & Kahn, Robert L. **Patterns of sexual behavior following brain injury.** *Psychiatry*, 1961, 24(1), 69-78.—36 of 196 patients with intracranial lesions showed changes in sexual behavior which are described, related to the pre-morbid personality and to other behavioral alterations, and exemplified by one detailed case report.—C. T. Bever.

Cerebral Palsy

1666. Barsch, Ray H., & Rudell, Beth. (Jewish Vocational Service, Milwaukee, Wis.) **A study of reading development among 77 children with cerebral palsy.** *Cerebral Palsy Rev.*, 1962, 23(2), 3-12.—The reading behavior of all 1958-59 clinic patients, aged 5-16, was evaluated by a specialist in reading with respect to 10 facets of reading: 58 were judged to have intelligible speech, 6% were advanced in reading development, and 69% were retarded. Clinical impressions of intellectual level were directly related to reading development. The frequency of good and poor readers was similar for both regular and orthopedic school children. The hemiplegic cases were the best readers.—T. E. Newland.

1667. Bortner, Morton, & Birch, Herbert G. (New York Medical Coll.) **Perceptual and perceptual-motor dissociation in cerebral palsied children.** *J. nerv.*

ment. *Dis.*, 1962, 134(2), 103-108.—"The block-design subtest of the WISC was administered to 28 cerebral palsied children. After an initial procedure in which S's inability to reproduce certain designs was recorded, he was asked to choose from three actual block models the one which looked exactly like the design on the card. Among the 28 patients there were 89 failures in block design reproduction. When offered the opportunity to match the design on the card with the one of three actual block models which was accurate copy, Ss were able to choose correctly 79 per cent of the time. Implications are drawn from these results for a concept of the levels of perceptual organization."—N. H. Pronko.

1668. Gibbs, Norah. (London, England) **Organization of diagnostic and treatment clinics for cerebral palsied children.** *Cerebral Palsy Bull. Suppl.*, 1961, No. 4. 8 p.—The philosophy, staffing, and functioning of such clinics are delineated in condensed form by a subcommittee of the Medical Advisory Committee of the National Spastics Society.—T. E. Newland.

1669. Hickey, Kathleen. **Reading ability of cerebral palsied children.** *Develpm. Med. child Neurol.*, 1962, 4(2), 209-210.—The reading behaviors of 60 children, aged 4½-16½ years were reported by their teachers. 19 were reported to be "fluent readers"; 23 "able to read." Many were "late starters," sometimes being 10 or 11 years old before making a beginning. "Low mental ability was a grave problem." Teachers' experiences are reported.—T. E. Newland.

1670. Irwin, Orvis C. **Repetition of an investigation of diphthong articulation by children with cerebral palsy.** *Cerebral Palsy Rev.*, 1961, 22(6), 12-13.—The responses of 320 children later tested showed no statistically significant differences from those in the prior sample of 166 children.—T. E. Newland.

1671. Irwin, Orvis C. (U. Wichita) **Two notes concerning vowel articulation by children with cerebral palsy.** *Cerebral Palsy Rev.*, 1961, 22(6), 11, 12, 14.—148 cerebral palsied children did "equally well in articulating vowel sounds in single and double syllable words." Interform reliability of a test of vowel articulation was found to be .85; test-retest reliability, after 21 days was .64. Test-retest reliability of a test of consonant pronunciation, after 21 days was .85.—T. E. Newland.

1672. Irwin, Orvis C. (U. Wichita) **A second comparative study of articulation of children with cerebral palsy and of mentally retarded children.** *Cerebral Palsy Rev.*, 1962, 23(1), 17-19.—The responses on an articulation test of 162 mentally retarded children were compared with those of 265 children with cerebral palsy. The children were from 3 to 16 years old. It was found that "cerebral palsy" as such was a factor in addition to the mental retardation in the speech of the cerebral palsied children, and that omissions significantly exceeded substitutions in both groups.—T. E. Newland.

1673. Irwin, Orvis C. (U. Wichita) **Status of articulation of final reversed consonant blends by children with cerebral palsy.** *Cerebral Palsy Rev.*, 1962, 23(2), 17-19.—Tape recorded pronunciations by 273 children were analyzed. Geographic, regional, and sex differences were not present; low correlations

were found between CA, MA, and IQ; no significant differences existed between spastics and athetoids; correct articulation exceeded both substitution and omission errors; and omissions exceeded substitutions.—T. E. Newland.

1674. James, F. E. (National Childrens' Home, Penhurst, Oxford) **Olfactory sensation in cerebral palsy.** *Develpm. Med. child Neurol.*, 1962, 4(2), 1962.—There was no specific loss of olfactory sensation in a group of cerebral palsied children who were paired with non-cerebral palsied physically handicapped children. No relationship was observed related to Terman-Merrill IQs.—T. E. Newland.

1675. Lenard, H. M. (Milwaukee, Wis.) **Vocational implications for the cerebral palsied.** *Cerebral Palsy Rev.*, 1962, 23(2), 13-16.—17 young people, aged 14-18, participating in a special half-day work experience program run by the United Cerebral Palsied Work Evaluation and Classification Project, were provided vocational counseling. The vocational expectations of the parents, who did not participate directly in the counseling, and of the youngsters shifted from "very high" to "average," greater shift occurring in the cases of parents in the upper financial and educational group. Pre- and postcounseling occupational choices, for both parents and worker-clients, were within the field of the father or of the working mother.—T. E. Newland.

1676. Schiller, Edgar J. (Cerebral Palsy Ass. Western New York, Buffalo) **Creative habilitation of the cerebral-palsied child.** *J. Rehabil.*, 1961, 27(6), 14-15, 39, 42.—A descriptive article on the outcomes from a parental program of creative problem-solving. These "brain-storming sessions" appear to have been effective, with many useful contributions to the resolution of difficult and previously insoluble problems. Some case studies are included.—M. A. Seidenfeld.

1677. Simar, A. (Brussels, Belgium) **About the reeducation of cerebral palsy.** *Cerebral Palsy Rev.*, 1961, 22(6), 7-9.—Data are presented showing changes, after 1 to 5 years' re-education, in 27 children with respect to locomotion, self care, speech, intelligence, and education. The progress realized was "not necessarily connected with" intelligence; was more rapid in the early stages of treatment; was better for children identified early; and was greatest for hemiplegics, followed by spastics, and least for athetoids. Parents should not be expected to expect too much.—T. E. Newland.

MENTAL RETARDATION

1678. Baum, Marian H. (Lorain County Child Welfare Board, Elyria, O.) **Some dynamic factors affecting family adjustment to the handicapped child.** *Except. Children*, 1962, 28, 387-392.—The various types of parents' reactions to their handicapped child are discussed. It is concluded that "the practical purpose of any attempted dynamic formulation of parental reactions to the awareness of global defect in their child is to provide insight into behavior that enables the professional advisor to help these parents 'see the child as a separate human being, and his handicap as an unfortunate accident of nature.' . . . The parent must be assisted, through the repetitive working through of feelings to reach the final stage of mourning, wherein his behavior is

reorganized and directed toward a new object—the handicapped child as he is, in realistic terms.”—J. Z. Elias.

1679. Beck, Helen L. (St. Christopher's Hosp. for Children) **The advantages of a multi-purpose clinic for the mentally retarded.** *Amer. J. ment. Defic.*, 1962, 66(5), 789-794.—The problem of integrating services for the mentally retarded is described. Gaps in services and duplication of services are discussed. 2 attempts to find more effective approaches to services for the retarded and to modify the problems created by too much or the wrong kind of specialization are considered. The role of the community and the use of its resources are emphasized.—V. Staudt-Sexton.

1680. Benton, A. L., & McGavren, Musettes. (Woodward State Hosp.) **Qualitative aspects of visual memory test performance in mental defectives.** *Amer. J. ment. Defic.*, 1962, 66(6), 878-883.—The purpose of this study was to determine whether the reproduction of visual designs from memory differs qualitatively for normals and defectives, when over-all performance is controlled. 36 normal and 36 mental defectives were matched and paired for total error score on their Visual Retention Test, Form C performances. When the performances of the 2 groups were compared in terms of 6 major types of errors (omissions, distortions, perseverations, rotations, misplacements, size) it was found that they differed in only 1 respect—the defective made many more size errors than did the normal children.—V. Staudt-Sexton.

1681. Berkson, G., & Davenport, R. K. (Yerkes Lab. Primate Biology) **Stereotyped movements of mental defectives: I. Initial Survey.** *Amer. J. ment. Defic.*, 1962, 66(6), 849-852.—71 severely retarded patients were observed in their cottages for brief periods. $\frac{2}{3}$ of them exhibited stereotyped movements and postures. The observations were reliable but depended on the behavior category. The stereotyped behaviors were related significantly to self manipulation, IQ, age, and length of institutionalization. More stereotyped behaviors were observed in the blind than in the sighted Ss.—V. Staudt-Sexton.

1682. Cantor, G. N., & Ryan, T. J. (Iowa Child Welfare Research Station) **Retention of verbal paired-associates in normals and retardates.** *Amer. J. ment. Defic.*, 1962, 66(6), 861-865.—20 educable retardates and 24 kindergarten or 1st grade normals, matched roughly for MA level were given a paired-associates verbal learning task. $\frac{1}{2}$ of each intelligence group was returned for relearning 1 week later. The other $\frac{1}{2}$ were required to relearn 1 month later. An analysis of trials-to-criterion scores indicated that: (a) there was no significant difference between the groups in acquisition; (b) the normals and retardates failed to differ significantly in amount retained following both the 1-week, and 1-month intervals; and (c) retention after 1 week did not differ from that occurring after 1 month. Analysis of the savings scores confirmed retention findings.—V. Staudt-Sexton.

1683. Daly, W. & Huber, W. (Orient State Inst. Orient, O.) **A note on "Sexual Identification in Mentally Subnormal Females" by Fisher.** *Amer. J. ment. Defic.*, 1962, 66(5), 782-783.—V. Staudt-Sexton.

1684. Davis, D. Russell. (Cambridge U.) **A disorder theory of mental retardation.** *J. ment. Subnorm.*, 1961, 7(1, Whole No. 12), 13-21.—A stress theory of mental retardation is suggested in which impairment in learning capacity is attributed to psychological stresses arising out of disturbed parent-child relations. Evidence from comparative psychology, especially Liddell's work, is adduced in support of this position. Additional observations from the clinical literature are noted with regard to the possible emotional origin of retardation.—A. Barclay.

1685. Dentler, Robert A., & Mackler, Bernard. (Dartmouth Coll.) **The socialization of retarded children in an institution.** *J. Hlth. hum. Behav.*, 1961, 2(4), 243-252.—The goal was to study institutional socialization of educable retarded children while the children lived in a cottage. The Ss were 29 boys newly admitted to a state school. Their ages were 6-12 with a mean IQ of 56. Observation and sociometric tests were used. A basic premise was that the function of the institutional socialization process is to reorganize the self of the newcomer. While the character of the institution studied proved incompatible with individuality, it was compatible with efficient management and rehabilitation toward limited participation and adult subsistence in the community upon discharge.—L. A. Ostlund.

1686. DeProspero, Chris, Joseph. (New York U.) **An administrative handbook for the bureau for children with retarded mental development of the New York city public schools.** *Dissert. Abstr.*, 1961, 21(10), 3158.—Abstract.

1687. Dittmann, Laura L. (United States Children's Bureau, Dept Health, Education & Welfare) **The family of the child in an institution.** *Amer. J. ment. defic.*, 1962, 66(5), 759-765.—Some of the inhibiting factors which seem to be present in the family and in the institution when a child is placed in a residential institution are discussed. Close contact of parents with the institution is needed.—V. Staudt-Sexton.

1688. Earl, Charles James Cecil. **Subnormal personalities: Their clinical investigation and assessment.** Baltimore, Md.: Williams & Wilkins, 1961. xiv, 338 p. \$7.00.—This posthumous work of the author was completed by H. C. Gunzburg. It is based almost entirely on their work at Monyhull Hospital, Birmingham, and particularly on their experience with educationally subnormal boys. The book shows how a mental testing battery can be built up that will give much better information about children, both in quantity and in reliability, than a "straight IQ." It describes the development of Earl's Moron Battery, together with a codification of somatotype examination techniques and a standardization of social diagnostic procedures. The author adopted a descriptive, ideographic approach to describe aspects of personality of the subnormal: weakness, simplicity, immaturity, instability, schizoidia, viscosity, neurosis, psychopathy, and psychosis. Other chapters discuss subnormal language and the treatment and training of adult subnormals.—V. Sanua.

1689. Fisher, G. M. (Fairview State Hosp., Costa Mesa, Calif.) **A note on "Sexual Identification in Mentally Subnormal Females" by Fisher: Reply to Daly and Huber.** *Amer. J. ment. Defic.*, 1962, 66(5), 784.—V. Staudt-Sexton.

1690. Franks, V., & Franks, C. M. Classical conditioning procedures as an index of vocational adjustment among mental defectives. *Percept. mot. Skills*, 1962, 14, 241-242.—3 groups of female mental defectives of different degrees of work adjustment were compared. The prediction was confirmed that those defectives whose vocational adjustments were poor were also those who were relatively poor at forming conditioned eyeblink responses in the laboratory. The groups did not differ significantly with respect to age, sex, IQ, indices of physical health, or proportion of Ss with apparent CNS damage.—W. H. Guertin.
1691. Gallagher, J. J. (Inst. for Research on Exceptional Children, U. Illinois) Changes in verbal and non-verbal ability of brain-injured mentally retarded children following removal of special stimulation. *Amer. J. ment. Defic.*, 1962, 66(5), 774-781.—Examined the effect of removing special tutoring procedures from a group of institutionalized mentally retarded brain-injured children who had undergone tutoring for a period of from 1 to 2 years. The author suggests that the professional worker can take a position of cautious optimism regarding the possibility of small to modest gains in ability in some retarded children under conditions of special stimulation. These gains are not necessarily lost when the stimulation is removed.—V. Staudt-Sexton.
1692. Graliker, Betty V., Fishler, Karol, & Koch, R. (Los Angeles Childrens Hosp.) Teenage reaction to a mentally retarded sibling. *Amer. J. ment. Defic.*, 1962, 66(6), 838-843.—Interviews were held with 21 teenage siblings of a group of 16 retarded children. The aim was to find out what it meant to the teenager in terms of his school, social, and family life, to have a retarded brother or sister. The interview covered 4 areas: description of the teenager, relationships in the home, attitudes toward the mentally retarded siblings, and attitudes towards institutionalization of the retarded sibling. The results indicated that the teenagers, on the whole, lead a normal life with adequate social outlets and positive relationships with their peers; their relationships within the home structure were good; and there was acceptance of the retarded child and adequate understanding of the diagnosis. It was suggested that the presence of a young retarded child in the home does not seem to have an adverse effect upon teenage siblings, particularly when early diagnosis and parent guidance by a multidisciplinary team composed of a pediatrician, psychologist, public health nurse, and social worker help the family to maintain its equilibrium.—V. Staudt-Sexton.
1693. Hunt, Betty M. (Columbus State School, O.) Differential responses of mentally retarded children on the Leiter Scale. *Except. Child.*, 1961, 28, 99-102.—3 groups, of 30 children each, were matched with respect to MA, CA, and Binet IQ. Group 1 was diagnosed as familial; Group 2 as brain-injured with no medically recognized loss of visual acuity but handicapped in visual-motor activities, tasks of visual discrimination, and/or responding to 2-dimensional material; Group 3 as brain-injured with minimum handicaps in above areas. Differences of means on the Leiter between pairs of the above groups showed a significant difference only between the 2nd and 3rd groups in favor of the latter ($t = 2.20$, $P < .05$).—J. Z. Elias.
1694. Itard, Jean-Marc Gaspard. The wild boy of Aveyron. New York: Appleton-Century-Crofts, 1962. xxiv, 104 p. \$1.35. (paper).—A paper-bound issue of this well-known classical 18th Century clinical study of a wild boy discovered in Aveyron, France and of Itard's attempts to stimulate his social adaptation and his intellectual development. This translation by George and Muriel Humphrey is from the reprinted edition of 1894 of *Rapports et Memoires sur le Sauvage de L'Aveyron*, Paris, which is out of print.—M. A. Seidenfeld.
1695. Kumae, Tsukihar. The meaning of indeterminate number words in feeble-minded children. *Jap. J. Psychol.*, 1962, 32, 347-352.—A discussion of the use of concepts of very many, many, few, and very few in feeble-minded children. The children understood the words correctly but did not understand the sequence of number progression from very many to very few.—A. Barclay.
1696. Lenhoff, F. G. Exceptional children. New York: Taplinger, 1962. 201 p. \$4.95.—An American edition of the 1960 publication of Allen & Unwin, London.—J. W. Thompson.
1697. Olshansky, S., Schonfield, J., & Sternfeld, L. (Children's Developmental Clinic, Cambridge, Mass.) Mentally retarded or culturally different? *Train. Sch. Bull.*, 1962, 59, 18-21.—The authors urge the abandonment of the term "mental retardation" which is used currently by professionals to categorize children without brain damage in (contrast to the term "mental deficiency," which applies to children with known brain damage). They believe that children without brain damage are more aptly described at this time as "culturally different" rather than mentally retarded.—V. S. Sexton.
1698. Orme, J. E. The Coloured Progressive Matrices as a measure of intellectual subnormality. *Brit. J. med. Psychol.*, 1961, 34, 291-292.—"Coloured Progressive Matrices scores and W.A.I.S. full-scale I.Q.'s were obtained from 203 mentally subnormal subjects, aged 16-65, within the 40-80 I.Q. range." Correlations for age groups vary from .72 to .98.—C. L. Winder.
1699. Penney, R. K., Croskery, J., & Allen, G. (U. Texas) Effects of training schedules on rigidity as manifested by normal and mentally retarded children. *Psychol. Rep.*, 1962, 10(1), 243-249.—24 normal and 24 retarded children, matched for MA, received 20 presentations of a single stimulus to which they were instructed to press a bar. Half of each group was rewarded on each presentation and the rest on only 50% of the trials. The training stimulus then became the negative cue of a discrimination problem. All Ss performed at chance on the 20 trials of the discrimination problem except for normal Ss following 100% reward, who achieved 75% correct. The authors discuss rigidity as a possible explanation.—B. J. House.
1700. Perry, Thomas L. (Inst. Technology, Pasadena) Urinary excretion of amines in phenylketonuria and mongolism. *Science*, 1962, 136 (3519), 879-880.—Children with phenylketonuria excrete considerably less serotonin and tryptamine and somewhat less normetanephrine and p-tyramine than normal children. The excretion of these amines was not decreased in mongolism. Even during monoamine oxidase blockade, o-tyramine could not be

detected in the urine of phenylketonurics. These findings are discussed in relation to the mental defect of phenylketonuria.—*Journal abstract.*

1701. Pilkington, T. L. (Cranage Hall Hosp., Cheshire, England) **A note on a film experiment in recording mental defectives.** *Amer. J. ment. Defic.*, 1962, 66(5), 733-735.—Film records of mentally defective patients were made while they were undergoing a clinical trial of a thymoleptic drug. It was suggested that the use of ciné-recording of psychiatric patients, not only to show their responses to therapy, but to show their "natural" development over periods of time, is worthy of further exploration with particular reference to its objectivity.—*V. Staudt-Sexton.*

1702. Pryer, Margaret W., & Cassel, R. H. (State Colony & Training School, Pineville, La.) **The Children's Manifest Anxiety Scale: Reliability with aments.** *Amer. J. ment. Defic.*, 1962, 66(6), 860.—The reliability data indicate that attempting to separate high and low anxiety groups of retarded Ss (MA < 8) by means of the CMAS may be impractical. The necessary large score-range between the 2 groups excludes too many Ss. The test-retest reliability coefficients, while not high by mental test standards, are not too low to preclude the use of the CMAS with retarded Ss of low MA in designs in which the anxiety score is the dependent variable.—*V. Staudt-Sexton.*

1703. Rigrodsky, S. (Training School, Vineland, N. J.) **Procedures for speech therapy with institutionalized mentally retarded children.** *Train. Sch. Bull.*, 1962, 59(1), 3-8.—This review demonstrates the need for effective speech and language therapies for the mentally retarded. Difficulties in all areas of languages are confounded by sensory and perceptual deficits. Programs must maintain elasticity, from offering stimulation for the nonverbal to providing techniques for children with unique language handicaps.—*V. S. Sexton.*

1704. Rohrs, F. W., & Haworth, Mary R. (Michigan State U.) **The 1960 Stanford-Binet, WISC, and Goodenough Tests with mentally retarded children.** *Amer. J. ment. Defic.*, 1962, 66(6), 853-859.—Correlations and significant mean differences between the new Stanford-Binet, L-M, the WISC, and the Goodenough Draw-A-Man Test are reported. 2 groups of mentally retarded children served as Ss, one of familial etiology (N = 20) and the other of various organic etiologies (N = 26). Test differences between the 2 groups were also examined including analyses of SB, L-M scatter, and the differentiating ability of individual SB, L-M items. The most outstanding result for the group as a whole was the significantly higher mean score on the S-B, L-M than on the WISC Full Scale. This finding is contrary to most earlier studies which compared the 1937 revision of the Stanford-Binet with the WISC. The combined groups also scored significantly higher on the DAM than on the WISC Full Scale. S-B, L-M correlated more highly with the WISC Full and Verbal Scales than with the Performance Scale, while the DAM correlated highest with the WISC Performance Scale.—*V. Staudt-Sexton.*

1705. Rosenberg, S., Spradlin, J., & Mabel, S. (U. Kansas) **Interaction among retarded children as a function of their relative language skills.** *J.*

abnorm. soc. Psychol., 1961, 63(2), 402-410.—It has long been recognized that the quality of interpersonal relations affects the behavior of individuals with mental retardation. The question to be assessed here was the effect of the skill of individual reacting with the mental retardate upon the behavior of the retardate. This study is a modified replication of an earlier one (Rosenberg, 1959). Ss of an institution for mental retardates were categorized re: verbal facility. Group of Ss was then formed containing pairs of Highs and Lows on this test, and interpersonal behavior was assessed in a play room situation. The results indicate that Lows and Highs interact with each other effectively, whereas heterogeneity of grouping inhibits social interaction.—*G. Frank.*

1706. Ross, R. T. (California State Dept. Mental Hygiene) **The mental growth of mongoloid defectives.** *Amer. J. ment. Defic.*, 1962, 66(5), 736-738.—A mental growth curve for mongoloid defectives was derived by averaging for each year of chronological age, the corresponding mental ages from among 520 tests on 319 mongoloid patients examined by either the Stanford-Binet, Wechsler, Kuhlmann, or Cattell scales. The conclusion drawn was that the curve of mental growth for mongoloid defectives is essentially of the same shape as that determined for normal Ss and about 25% as high at each chronological age.—*V. Staudt-Sexton.*

1707. Sheridan, Mary D. (English Ministry Health) **Mentally handicapped children.** *Dev. elpm. Med. child Neurol.*, 1962, 4(1), 71-76.—"Present arrangements in England for the day care and training of mentally handicapped children under 8 years, who are not considered suitable for education at school, are briefly described."—*T. E. Newland.*

1708. Shipe, Dorothy; Dingman, H. F., Windle, C., & Moticha, Katherine. (Pacific State Hosp., Pomona, Calif.) **Validity of a measure of escape proneness.** *Amer. J. ment. Defic.*, 1962, 66(6), 872-877.—195 mildly retarded patients at Pacific State Hospital were given a 9 item Escape-Proneness Scale, a modification of Clark's AWOL Recidivist Scale. Neither the entire scale nor any individual item differentiated between patients who had engaged in acting-out behavior and those who had not.—*V. Staudt-Sexton.*

1709. Stevenson, H. W., & Knights, R. M. (U. Minnesota) **Social reinforcement with normal and retarded children as a function of pretraining, sex of E, and sex of S.** *Amer. J. ment. Defic.*, 1962, 66(6), 866-871.—Normal and retarded Ss of approximately the same MA were given a simple performance task in which responses were reinforced by supportive comments delivered by E. $\frac{1}{2}$ of the boys and girls were tested by a male E and the other $\frac{1}{2}$ by a female E. $\frac{1}{2}$ of the Ss played 3 pretraining games in which 10 out of every 12 responses were deemed correct by E. The remaining Ss received no pretraining. The results showed a significant difference in performance between the pretraining and no-training groups. A significant interaction between type of S and pretraining condition was also found. A greater difference in performance between the 2 conditions occurred in normal Ss than in retarded Ss. Evidence for a crosseffect was found in which Es influenced the behavior of Ss of the opposite sex to a greater degree than Ss of the same sex. Pretraining decreased the cross-sex differences.—*V. Staudt-Sexton.*

1710. Thresher, Janice M. (Walter E. Fernald State School) A problem for educators: Arithmetical concept formation in the mentally retarded child. *Amer. J. ment. Defic.*, 1962, 66(5), 766-773.—Conflicting opinions are reported concerning the capabilities of retarded children, an appropriate arithmetic curriculum for them, and the methods and materials for teaching it. Arithmetical concept formation (a problem for many mentally retarded children) is described as involving the following developmental process: (a) concrete object observation, (b) picture perception and recognition, (c) abstract conceptualization, (d) symbolic interpretation, and (e) utilization and application of arithmetical procedures.—V. Staudt-Sexton.

1711. Wallin, J. E. W. Survey of educational attainments of clients in Industries Limited: A workshop for mental retardates. Carlisle, Pa.: Industries Limited, 1962. 39 p. \$.25.—Results are presented for reading, arithmetic, spelling, written language skills, Wallin-Cutsforth Tests, and certain other performance tests.—C. T. Morgan.

1712. White, Delilah T. (Cook County Hosp., Chicago 1, Ill.) The advantages of a special clinic for the mentally retarded. *Amer. J. ment. Defic.*, 1962, 66(5), 785-788.—The special clinic is described as permitting carefully focused, long-term observation of the patient which leads to more accurate and comprehensive diagnosis. The number and variety of cases seen allows for more authoritative and varied research. The knowledgeable staff is well suited for teaching other professional workers and the lay public. Parents in the special clinic discover a reassuring atmosphere where they can receive pertinent information and emotional support. Lastly, the agency by limiting its concern to the single problem of retardation is best able to establish a constant, sensitive rapport with other services, such as schools and other clinics, dealing with similar problems.—V. Staudt-Sexton.

1713. Windle, C. (Pacific State Hosp., Pomona, Calif.) Prognosis of mental subnormals. *Amer. J. ment. Defic.*, 1962, 66(5, Monogr. Suppl.), 180 p.—Presents a compilation of research results, data, and ideas on prognosis in mental subnormality. The 10 chapters include discussions of the characteristics of institutionalized subnormals, methodology problems of prognostic studies, intensive literature reviews on demographic characteristics, patient abilities and disabilities, institutional experiences, and family and community factors. An extensive bibliography is appended.—V. S. Sexton.

1714. Woodward, Mary. (University Coll., Swansea) Concepts of number of the mentally subnormal studied by Piaget's method. *J. child Psychol. Psychiat.*, 1961, 2(4), 249-259.—A replication of 4 of Piaget's experiments with 50 adults around 19 years (IQ 44-73) and 44 children around 13 years old (IQ 25-55). Responses were similar to those of normal children 4-7 years with most Ss performing at the intuitive or concrete operational levels. Few Ss performed at the same level on all 4 tasks. A relatively advanced level was found for problems involving a one-to-one correspondence between 2 sets of objects but problems involving series and part-whole relations were handled intuitively.—J. M. Reisman.

1715. Woodward, Mary. (Fountain Hosp., London) Concepts of space in the mentally subnormal studied by Piaget's method. *Brit. J. soc. clin. Psychol.*, 1962, 1(1), 25-37.—3 experiments, devised by Piaget and Inhelder for use with normal children, were used to study the concepts of space in 94 mentally subnormal adults or children. Although there was little consistency as regards stages, the types of response and sequences reported obtaining in normal children were also found to apply in the present groups.—C. M. Franks.

BEHAVIOR PROBLEMS

1716. Hollister, William G., & Goldston, Stephen E. (National Inst. Mental Health, Bethesda, Md.) Psychoeducational processes in classes for emotionally handicapped children. *Except. Children*, 1962, 28, 351-356.—Based upon an analysis of program descriptions from schools located in various sections of the country, a classification is offered of the processes involved which are grouped under the major headings: administration, pupil selection and study, classroom operations, and supportive operations. "We have developed this beginning effort at a taxonomy of the methods used in these classes in the hope that this preliminary outline will be of value to those currently planning and operating programs, and to those attempting to describe and evaluate the procedures being used in these classes."—J. Z. Elias.

1717. Kolariková O. (Dětská psychologická poradna, Brno) Psychologické typy toulavosti u dětí. [Psychological types of vagrancy of difficult children.] *Ceskoslov. Psychol.*, 1961, 5, 234-250.—Analysis of vagrancy of 104 children aged 8-14 years (86 boys, 18 girls). Author differentiated cases of vagrancy based on spontaneous activity, on reactive action or on combination of both. Unfavorable family background was ascertained in an absolute majority of cases. There are 4 categories identified: defectiveness, variability, educative insufficiency, and educative indisposition of the parents. The motivation toward vagrancy is to be found in social, personal, or situational influences. Psychoprophylactic and reeducative treatments are described. (Russian & English summaries)—V. Břicháček.

1718. Moreno de Taubenslag, H., & Costa, E. Problemas de conducta y lesión cerebral mínima. [Behavioral problems and minimal cerebral lesions.] *Acta neuropsiquiat. Argent.*, 1961, 7(3), 193-195.—A high percentage of children with behavioral problems reveals an organic basis upon examination. Because of the difficulty of diagnosis, the symptomatology is presented with particular attention to psychomotor and perceptive factors.—W. W. Meissner.

1719. O'Neal, Patricia; Robins, Lee N., King, Lucy Jane, & Schaefer, Jeanette. (Washington U. School Medicine, St. Louis) Parental deviance and the genesis of sociopathic personality. *Amer. J. Psychiat.*, 1962, 118, 1114-1124.—"A 30-year follow-up study of 524 patients originally seen in a child guidance clinic yielded a high proportion (20%) of former patients who met criteria for a diagnosis of sociopathic personality as adults, as compared with a control group (2%). The 84 male patients with this diagnosis are compared, with respect to their parents' behavior problems, to male patients with other psychiatric diseases (166), and to male patients

diagnosed as having no disease (75).”—N. H. Pronko.

1720. Phillips, Richard H. (State U., New York Upstate Medical Center) **The accumulator.** *Arch. gen. Psychiat.*, 1962, 6(6), 474-477.—Contrary to the collector the accumulator has no design in the things he keeps, hides them in shame, gets no pleasure from them, does not define himself through them, and does not express any symbolic meaning with them. Wholesale disposal of the objects is usually an indication of “characterological changes in the direction of clearer self-definition and of better adaptation.”—L. W. Brandt.

1721. Yehilevich, David. **Al mahut hamazochizm, hasadizm vехаotosadizm.** [On the nature of masochism, sadism and autosadism.] *Ofakim*, 1961, 15, 94-105.—“The aim of our paper is to analyze the characteristic features of masochism, sadism, and autosadism by presentation of some theories recognized in psychological writings.” Exogenic, feminine, moral as well as primary and secondary masochism are described, and masochism is explained from the point of view of a defence mechanism of the ego as well as a result of philogenetic and ontogenetic development. The meaning of sadism as well as its biological and psychological sources are given. Remarks about therapy of masochism are included.—H. Ormian.

Alcoholism

1722. Connor, Ralph Gordon. (U. Washington) **The self-concepts of alcoholics.** *Dissert. Abstr.*, 21(12), 3871.—Abstract.

1723. Fort, Twila, & Porterfield, Austin L. (Wrage Round.) **Some backgrounds and types of alcoholic among women.** *J. Hlth. hum. Behav.*, 1961, 2(4), 283-292.—Questionnaires and interviews, with 34 women members of Alcoholics Anonymous provided data concerning the development of alcoholism. The findings were: (a) the time for the development of the entire alcoholic process appears to be considerably shorter in women than in men, (b) the phases of the process appear to be less distinct in female alcoholics than in male alcoholics, (c) only a small proportion of the women seem to develop their alcoholism in the absence of personality difficulties or strong emotional stresses, and (d) the onset of alcoholism seems to be a consequence of a highly emotional event.—L. A. Ostlund.

1724. Palola, Ernest G., Jackson, Joan K., & Kelleher, Daniel. (U. Washington School Medicine) **Defensiveness in alcoholics: Measures based on the Minnesota Multiphasic Personality Inventory.** *J. Hlth. hum. Behav.*, 1961, 2(3), 185-189.—The MMPI was used to measure defensiveness among active and inactive alcoholics. The Ss were 123 present and past alcoholics. The results indicated that the Alcoholics Anonymous members had relatively higher self-protective feelings, i.e., they accepted the problem of alcoholism and suicidal behavior, but were unwilling to admit any unhappiness with their lot in life.—L. A. Ostlund.

1725. Vogel, Muriel D. (Alcoholism Research Found., Toronto) **GSR conditioning and personality factors in alcoholics and normals.** *J. abnorm. soc. Psychol.*, 1961, 63(2), 417-421.—Alcoholic and nonalcoholic introverted and extroverted Ss were placed in a GSR conditioning situation. Significant

differences in conditionability were not found between alcoholics and the nonalcoholic group with regard to the intro-extroversion dimension. The results were seen as confirming aspects of Eysenck's (1957) theory of personality.—G. Frank.

Sex Deviation

1726. Frey, Egon C. **Dreams of male homosexuals and the attitude of society.** *J. indiv. Psychol.*, 1962, 18(1), 26-34.—Anxiety is often the result of social discrimination of homosexuals. We must differentiate between the socially harmless (androphile) homosexual and the criminal, thus helping the former to become a useful community member.—A. R. Howard.

1727. Goldhirsh, M. I. (State Correctional Inst., Grateford, Pa.) **Manifest content of dreams of convicted sex offenders.** *J. abnorm. soc. Psychol.*, 1961, 63(3), 643-645.—The dreams of convicted institutionalized sex offenders were analyzed to see if they contained high sexual content and “uncamouflaged unlawful sex activity.” Dreams of sex criminals and non-sex-crime-offenders in therapy supported the hypothesis.—G. Frank.

1728. Robinson, Marie N. **The power of sexual surrender.** New York: New American Library World Literature, 1962. viii, 192 p.—A paperback edition of the 1959 publication. This is a popular presentation of what medical science knows about frigidity in the human female.—E. Y. Beeman.

Drug Addiction

1729. Tramer, L., & Bentovim, L. **Clinical psychological study on eastern drug addicts.** *Conf. psychiat.*, Basel, 1961, 4(3-4), 194-213.—61 drug addicts in an Israeli mental hospital were divided into 3 groups according to anxiety level and frustration tolerance. Methods of treatment appropriate for each group are described.—E. W. Eng.

Suicide (& Homicide)

1730. Firth, Raymond. **Suicide and risk-taking in Tikopia society.** *Psychiatry*, 1961, 24(1), 1-17.—Suicidal methods and types of suicidal situations in this Western Pacific Polynesian community are described and discussed. Incidence cannot be directly correlated with any other single feature of this society; it reflects the promptness and efficiency of rescue efforts. The manner and occurrence of suicide are socially determined and must be understood in the context of other social acts of the individual and of other members of his society.—C. T. Bever.

1731. Gaultier, M., Fournier, E., & Gorceix, A. **A propos de 47 cas de tentatives de suicides chez des adolescents.** [A study of 47 cases of attempted suicide in adolescence.] *Hyg. ment.*, 1961, 50(6), 363-369.—Conclusions: (a) women predominate (40 out of 47); (b) previous attempts, several months or years prior to the current one, are frequent; (c) major maladjustment is rare (1 psychotic out of 47); (d) when the attempt corresponds to an emotional crisis, the suicide is an attempted solution to the problem; (e) the conflicts persist after the attempt, so that prolonged surveillance is called for.—W. W. Meissner.

1732. Meerloo, Joost A. M. **Suicide and mass suicide.** New York: Grune & Stratton, 1962. vi, 153 p. \$3.75.—Clinical psychiatry, sociology, and personal experiences form the background for a psychoanalytically oriented analysis of individual and group self-destruction. The relationship between personal and mass suicidal tendencies is examined. Their causation, symbolism, treatment, and prevention is discussed.—R. Tyson.

1733. Sargent, D. **Children who kill: A family conspiracy.** *Soc. Wk.*, 1962, 7(1), 35-42.—A number of cases are cited of children whose killings appear to be traceable to the internalization of the desire of a parent, or of a parent figure, that the deceased person be injured.—G. Elias.

1734. Weiner, Irving B. (U. Rochester School Medicine & Dentistry) **Cross-validation of a Rorschach checklist associated with suicidal tendencies.** *J. consult. Psychol.*, 1961, 25(4), 312-315.—Martin's signs for suicidal tendency are significantly related to suicide attempts (concurrent validity) and to severity of psychiatric illness.—E. R. Oetting.

CRIME & DELINQUENCY

1735. Amos, William Earl. (U. Maryland) **A study of self-concept: Delinquent boys' accuracy in selected self-evaluations.** *Dissert. Abstr.*, 1961, 21(10), 3179.—Abstract.

1736. Anon. **The private intelligence of bank robbers: Two self-accounts.** *J. indiv. Psychol.*, 1962, 18(1), 77-88.—Adler's observations about the criminal find a high degree of confirmation in these self-descriptions reprinted from a federal penitentiary's inmate magazine.—A. R. Howard.

1737. Crain, William Willis. (Claremont Graduate School) **An experimental evaluation of the relationship of delay behavior to response to verbal self-stimulation using delayed auditory feedback.** *Dissert. Abstr.*, 1961, 21(10), 3157-3158.—Abstract.

1738. DeVos, George A., & Mizushima, Keiichi. (U. California, Berkeley) **The school and delinquency: Perspectives from Japan.** *Teachers Coll. Rec.*, 1962, 63(8), 626-638.—This survey of research on juvenile delinquency in Japan reveals similarities with the United States in backgrounds, characteristics, and problems.—H. K. Moore.

1739. Eskin, Lawrence David. (New York U.) **A study of some possible connections between criminal behavior and perceptual behavior.** *Dissert. Abstr.*, 1961, 21(10), 3163-3164.—Abstract.

1740. Halleck, S. L. **Juvenile delinquents: Sick or bad?** *Soc. Wk.*, 1962, 7(2), 58-61.—Delinquents are both "bad" and "sick," not one or the other. The delinquent is responsible for his behavior, despite his "illness"; but it is necessary to treat the emotional and personal factors which lead the individual to pursue asocial practices.—G. Elias.

1741. Horn, Wolfgang. (Taunusstr. 18, Butzbach/Hessen, Germany) **Bedingungsfaktoren und Begleiterscheinungen wiederholter Straffälligkeit.** [Causal factors and concomitant phenomena of recidivism.] *Z. exp. angew. Psychol.*, 1961, 8(4), 540-594.—Intuitive prognosis of recidivism is far less successful than prognosis based on tests. A

criminality questionnaire, improved by 8 successive item analyses, was presented to 3200 criminals and 629 noncriminals. 92 questions proved to have a significant relationship to recidivism.—W. J. Koppita.

1742. Huffman, Arthur V. (Illinois Dept. Public Safety) **The behavior patterns of criminals.** *J. soc. Ther.*, 1962, 8, 15-33.—A review of the causative factors of criminal behavior. A classification of the behavior systems of criminals is also outlined. The classification, consisting of 4 major groups or behavior patterns, is designed to facilitate research and for use as a diagnostic and prognostic tool. The major groups are: (a) no apparent criminal pathology, (b) personality demoralization, (c) personality disorganization, (d) sociopathic behavior reaction.—L. R. Witt.

1743. Hurwitz, Jacobs I., Hutcheson, B. R., & Cooper, Saul. (Boston U.) **Problems in refining the psychiatric assessment of juvenile delinquents.** *J. Hlth. hum. Behav.*, 1961, 2(4), 276-283.—Teams of 3 psychiatrists rated 100 juvenile delinquents in an attempt to ascertain the reliability and validity of psychiatric assessment. The methods used included interviews, observations, and ratings. Among the major findings were: (a) a positive relationship was obtained between level of inference and level of reliability, (b) ratings based on observations and background data were more reliable than ratings on background alone, and (c) a knowledge of previous difficulties with the law influenced diagnostic judgment more than did social and historical material.—L. A. Ostlund.

1744. Kelner, Yaakov. **Avaryanim tseirim nosherim mibet hasefer hatikhon.** [Young delinquents who drop out of the secondary school.] *Ofakim*, 1961, 15, 106-110.—25 young offenders in 1957-59 who dropped out of secondary schools were interviewed, each one of them 5 times. Possible forces influencing them were studied. In the beginning of their secondary school studies they behaved in a conformistic way; later a conflict arose with restrictive norms; afterwards, an identification process occurred with attitudes of the "saloon youth."—H. Ormian.

1745. Kundu, S., & Mukherjee, K. (Jodhpur) **Social behaviour of prisoners.** *Indian J. Psychol.*, 1958, 33(4), 269-273.—An "account of impressions gained from the prisons of a Central Jail" for first offenders. Every prisoner desires some type of recognition, acceptance, and prestige. If he fails to achieve this he shows hostility.—E. Y. Beemani.

1746. Mailloux, N. **La personnalité delinquante anormale e la ricerca contemporanea.** [The personality of the abnormal delinquent and contemporary research.] *Arch. Psicol. Neurol. Psichiat.*, 1962, 23(2), 151-171.—The innermost core of criminal personality still withstands technical investigation and classical interpretations. Criminals may be free from neurosis, psychosis, or perversions. On the basis of these findings, the position of criminality in relation to psychopathology should be reexamined.—L. L'Abate.

1747. Mizushima, Keiichi. **A study of the effects of psychotherapy on delinquents.** *Jap. J. Psychol.*, 1962, 32, 381-387.—It was found that psychotherapy served to increase the development of emotional change and maturity, served to decrease rule violations in the reformatory in which the study was con-

ducted, and that such effects seemed to occur more often in those individuals considered to be delinquent more on an emotional basis than upon a social basis.—*A. Barclay.*

1748. Morris, Albert. (Boston U.) An assessment of the Gluecks' studies in juvenile delinquency. *Sociol. soc. Res.*, 1962, 46(2), 156-166.—The Gluecks' studies provide extensive data on a wide range of factors significantly associated with serious, persistent delinquency. These differentiative factors become the basis for experience tables whose predictive value at a useful level of efficiency is suggested. The influence of the community on family relations and the extent to which personality changes occur after childhood are overlooked or underestimated. Some factors may be symptomatic rather than causal. Improved methods of research in causation are suggested.—*C. W. Page.*

1749. Mukherjee, K., & Kundu, S. (Calcutta, India) A study of birth order and family positions of the criminals. *Indian J. Psychol.*, 1961, 36(3), 127-132.—Of 120 male convicts in prison for various offenses, it was found that the largest proportion were neither first nor last born but of middle issue among sibs. This seems to be related to a neglect of discipline in the family, in comparison to more frequent severe or relaxed discipline for the first or last born criminals. There was some evidence that type of crime is related to order of birth.—*J. T. Cowles.*

1750. Peled, Elisheva. Nisayon hashuv letikun avaryanum tseirim. [An important experiment to improve juvenile delinquents.] *Hahinukh*, 1961-62, 34, 129-136, 292-301.—The spread of juvenile delinquency abroad and in Israel is discussed. The experiment of the Boston and Cambridge "laboratory" to investigate delinquency and the experiences gathered by the children's village of Kefar Haroe in Israel are broadly analyzed. Juvenile delinquents spend 1 day a week in Kefar Haroe in order to learn, play, and participate in film performances as well as in sport and artistic activities. The results of the Israeli experiment have been quite satisfactory.—*H. Ormian.*

1751. Petrie, Asenath; McCulloch, Rook, & Kazdin, Phoebe. (Harvard Medical School, Boston) The perceptual characteristics of juvenile delinquents. *J. nerv. ment. Dis.*, 1962, 134(5), 415-421.—70 young delinquent boys and girls in 3 institutions were compared with a control group on a perceptual task requiring size comparison via touch. Atypical perception was more characteristic of the delinquent group.—*N. H. Pronko.*

1752. Randolph, Mary H., Richardson, Harold, & Johnson, Ronald C. (San Jose State Coll.) A comparison of social and solitary male delinquents. *J. consult. Psychol.*, 1961, 25(4), 293-295.—"Solitary delinquents" show higher intellectual ability (WAIS), higher socioeconomic status, and, except for Ma, have more elevated MMPI profiles than those committing crimes with others.—*E. R. Oetting.*

1753. Schrag, Clarence. (U. Washington) Delinquency and opportunity: Analysis of a theory. *Sociol. soc. Res.*, 1962, 46(2), 167-175.—The opportunity theory, as formulated by Richard A. Cloward and Lloyd E. Ohlin (see 36: 1JO20C), is rich in its implications for delinquency causation and

control. Examined in terms of its logical, operational, and empirical adequacy the theory poses a number of questions concerning the accuracy of some of its postulates and theorems.—*C. W. Page.*

1754. Shanmugam, T. E., & Sundari, T. A. Difference between delinquent boys and non-delinquent boys in inhibition, disinhibition and personality traits. *Psychol. Stud., Mysore*, 1962, 7(1), 64-66.—No difference was found in delinquent and nondelinquent groups in the capacity for voluntary inhibition of a natural response. Capacity for disinhibition in delinquent boys was higher. The delinquent group had more neurotic traits, while the non-delinquent group revealed greater number of extraversion traits.—*U. Pareek.*

1755. Frankenstein, Carl. (Hebrew U., Jerusalem) Hitbagrut veavaryanut. [Adolescence and delinquency.] In Meir Shapira (Ed.), *Halakha umaase hahinukh hatikhon*. [Principles and practices in secondary education.] Jerusalem, Israel: Hebrew Univer. Secondary School, 1961. Pp. 115-129.—"The double prohibition (not to live like a child—not to live like an adult) is responsible for the nonrealistic character of the time consciousness of many adolescents in modern society as well as for the lack of continuity when looking at the past, present, and future. . . . Adolescence is not a 'bridge' but a 'pause.'" The adolescent's striving to imitate adults preserves his connections with reality. Some disturbances in his behavior are involved in the process of adolescence, specific to the "Western" culture. An attempt is made to analyze the way adolescents from all classes become delinquent.—*H. Ormian.*

1756. Shelley, Ernest L. V. (Michigan State U.) The effect of an organized counseling program on the anti-social themes elicited by the Thematic Apperception Test from youthful prison inmates. *Dissert. Abstr.*, 1961, 21(11), 3528.—*Abstract.*

1757. Yafe, Lester D. Netiya leavaryanut veanomias shel hamishpaha. [Delinquency proneness and family anomic.] *Megamot*, 1962, 12, 68-78.—Clinical experiences with delinquent or predelinquent youngsters suggest a strong relationship between 3 specific variables: lack of value consensus among family members, feelings of powerlessness, and problems of parental identification. An experimental field study strengthens the assumption of associations between these variables and their close relationship to delinquency proneness. These variables constitute a family anomic syndrome. 3 groups of Negro youngsters, students of different high schools in Ohio, were studied as to the existence of this syndrome across racial and class lines. (English summary)—*H. Ormian.*

1758. Yoshii, Naosaburo; Shimokochi, Minoru, & Tani, Kayoko. (Osaka U. School Medicine) The electroencephalograms in juvenile delinquents. *Folia psychiat. neurol. Jap.*, 1961, 15(2), 85-91.—EEGs characterized by theta waves or spikes were more frequent among delinquents than among a control group. Personality tests indicated that (a) the spike pattern was related to maladjustment, asociality, impulsiveness, and anxiety and (b) the theta pattern was related to emotional instability, asociality, and immaturity. The EEG pattern was also a function of the nature of the criminal offenses of the delinquents.—*W. A. Wilson, Jr.*

1759. Zald, Mayer Nathan. (U. Michigan) Multiple goals and staff structure: A comparative study of correctional institutions for juvenile delinquents. *Dissert. Abstr.*, 1961, 21(11), 3541-3542.—*Abstract*.

1760. Zubizarreta Peris, José Ramón. (Facultad Ciencias Medicas, Asunción, Paraguay) Salud mental y delincuencia juvenil. [Mental health and juvenile delinquency.] *Acta neuropsiquiat. Argent.*, 1961, 7(3), 182-184.—The etiology and prophylaxis of juvenile delinquency are discussed. One of the major factors is a growing disrespect for authority, which indicates parental failure, since respect for authority grows out of respect for parental authority. Behavioral clinics, in which difficulties in adjustment to society can be handled on an ambulatory basis, are recommended as part of a prophylactic program.—*W. W. Meissner*.

PSYCHOSES

1761. Bobon, J., & Maccagnani, G. L'expression plastique en psychopathologie: I. Les "signes plastiques." [Plastic expression in psychopathology: I. "Plastic signs."] *Acta neurol. psychiat. Belg.*, 1961, 61, 823-842.—"In the frame of a psychopathology of the plastic expression, the authors draw out the notion of "Plastic signs." It refers to signs sensu stricto which, although they keep their value as signs or not, constitute an essentially plastic expression; that means that they appear in the production of the patient as plastic forms and not as verbal information. Generally, the sign-drawing, pure expressivity, is not an instrument of communication. Nevertheless, in a patient who is autistic since many years, it is in a drawing and as a drawing that appears, in a unique way, the key-phrase of the delirium."—*V. Sanua*.

1762. Bobon, J., & Maccagnani, G. L'expression plastique en psychopathologie: III. Les dessins-signes. Un cas de parasymbolie graphique délicate: La langue "déologique." [Plastic expression in psychopathology: III. The drawing-signs. A case of parasymbolic graphism caused by illness: The "deological" language.] *Acta neurol. psychiat. Belg.*, 1961, 61, 849-865.—"In the field of their research on analogies between verbal expression and plastic expression, the authors have studied, during eight years, a graphic pseudo-language of which they have analyzed the main characteristics. This language is drawn; it is a drawing of each letter which lays the foundations of the symbolic interpretation of the patient or, in another way, it is the drawing which gives its value to the linguistic sign (drawing-sign). This language is the expression of valorizing delusions, of mystico-erotic type. It perfectly translates the morbid rationalism and the geometrical attitude of mind of its author. It sets the problem of regressions in psychopathology: 1) it shows a playful and magical thought; 2) it is of ideo-pictographic type, as in hieroglyphical writing."—*V. Sanua*.

1763. Brattemo, Carl-Erik. (Sidsjöns Mental State Hosp., Sundsvall, Sweden) Interpretations of proverbs in schizophrenic and depressive patients. *Acta psychiat. Scand., Copenhagen*, 1961, 37(3), 193-197.—Responses to a Swedish proverbs test made by 20 schizophrenics and 20 depressives were categorized in predetermined alternatives as abstract and concrete, right and wrong, and were analyzed after patients

had been matched according to age and intelligence. The thinking of the schizophrenic groups was dominated by illogical and abstract associations.—*R. Kaelbling*.

1764. Brattemo, Carl-Erik. Interpretations of proverbs in schizophrenic and depressive patients. *Acta psychol., Amsterdam*, 1961, 18(5), 342-350.—Unlike the results of other workers, these findings show a concrete reaction to proverbs in the depressed and not in schizophrenic. Schizophrenic thinking was illogical and abstract, in accord with Bleuler's viewpoint that such thinking is autistic.—*G. Rubin-Rabson*.

1765. Callieri, B., & Priori, R. Contributo allo studio dell'esperienza psicotica dermatozoica, zooptica e zoopatica. [Contribution to the study of psychotic perception of inner, near, and remote space.] *Arch. Psicol. Neurol. Psychiat.*, 1962, 23(2), 109-148.—Phenomenological, psychopathological, and clinical analysis of delusional experiences concerned with animal contents. 3 different fields of perceived inner, near, and remote space constitute the frame of reference for this inquiry.—*L. L'Abate*.

1766. Golburgh, Stephen Jon. A study of the vocational interests of four types of psychotic subjects. *Dissert. Abstr.*, 1961, 21(12), 3851.—*Abstract*.

1767. Havener, Philip Henry. (Vanderbilt U.) Distortions in the perception of self and others by persons using paranoid defenses. *Dissert. Abstr.*, 1961, 22(1), 322-323.—*Abstract*.

1768. Lapkin, Benjamin. (New York U.) The relation of primary process thinking to the recovery of subliminal material. *Dissert. Abstr.*, 1961, 21(10), 3165-3166.—*Abstract*.

1769. Lemert, E. M. (U. California, Davis) Paranoia and the dynamics of exclusion. *Sociometry*, 1962, 25(1), 2-20.—A 1st case study based on 35 case records and interviews with families of an additional 44 public commitments was followed by "a more refined and hypothesis-directed study" of 8 different cases with prominent paranoid characteristics but no hallucinations or intellectual impairment. The thesis "that members of communities and organizations do unite in common effort against the paranoid person prior to or apart from any vindictive behavior on his part. The paranoid community is real rather than pseudo in that it is composed of reciprocal relationships and processes whose net results are informal and formal exclusion and attenuated communication," is extensively examined and discussed.—*H. P. Shelley*.

1770. Maccagnani, G., & Bobon, J. L'expression plastique en psychopathologie: II. Un exemple d'identité entre un néomorphisme et le néographisme qui le nomme. [Plastic expression in psychopathology: II. An example of identity between a "neomorphism" and the corresponding "neographism."] *Acta neurol. psychiat. Belg.*, 1961, 61, 843-848.—"In the field of their research on analogies between verbal expression and plastic expression, the authors report an exceptional case of identity between a neomorphism and the neographism which names it. In a chronological series of drawings and paintings, at one time the neographism is integrated to the totality of the new form, at another time it is the neographism of which the structure is an element of the whole drawing. The pathological verbal signifying and the plastic signified are forming, for the patient, the one and only formal reality."—*V. Sanua*.

1771. Racamier, P. C. et al. (Hôpital Psychiatrique, Prémontré, Aisne) *La mère et l'enfant dans les psychoses du post-partum*. [Mother and child in post-partum psychoses.] *Evolut. psychiat.*, 1961, 26(4), 525-570.—It is suggested that the observation and treatment of the mentally ill mother and her child can be accomplished best in specialized mother-baby units. Such facilities, as well as therapeutic methods, are outlined. Under such conditions, favorable results are more rapid. Clinical and psychodynamic descriptions are offered of depressive states, which appear during the nursing period, and delusional states, which appear just after childbirth. These are related to the concept that since motherhood is a developmental state of the feminine personality, such disturbances must be viewed in the context of this integrational process. (36-item bibliogr.)—L. A. Ostlund.

1772. Reca de Acosta, Telma. (U. Buenos Aires) *Psicosis infantiles*. [Child psychoses.] *Acta neuropsychiat. Argent.*, 1961, 7(3), 170-178.—The symptomatology, frequency, etiology, prognosis, and treatment of childhood psychoses are discussed. The following conclusions are drawn: (a) the designation of psychosis is applied to various groups: atypical development, autism, symbiotic psychosis, anaclitic depression, schizophrenia, depressive psychosis, manic-depression, and emotional shock; (b) the distinction should be made between schizophrenic personality (as described by Bender) and schizophrenic psychosis; (c) the onset of childhood psychosis can be acute or insidious, but an acute onset is usually preceded by psychotic features; (d) the etiology usually involves a constellation of psychogenetic, organic, and genetic factors; and (e) a high percentage have organic lesions, particularly in the mesencephalon.—W. W. Meissner.

1773. Rolla, Edgardo H., & Marín de Rolla, Josefina. *El niño y su grupo familiar*. [The child and his family group.] *Acta neuropsychiat. Argent.*, 1961, 7(3), 190-193.—When psychosis affects one of the members of a well-defined group such as the family, it is a symptom of the intragroup situation of the family. The member affected by psychosis is nothing more than a repository for the anxieties of the other members of the family. Rather than speaking of "schizophrenogenic mother or father," it is probably more correct to speak of a "schizophrenic family."—W. W. Meissner.

1774. Skipper, James K., Jr. (Northwestern U.) *Functional significance of the nurse role: An evaluation*. *J. Hlth. hum. Behav.*, 1962, 3(1), 41-45.—Thorner's theoretical analysis of the nurse role was tested experimentally. 239 students and practicing nurses took a questionnaire concerning their conceptions of the nurse's attitudes, behavior, and role. "... the data indicate that the nurses in the sample felt that patients should be treated as persons rather than as cases. Warm, cordial nurse-patient relationships were approved; but close, personal, emotional relationships were not." Suggestions for a more useful theoretical analysis follow.—L. A. Ostlund.

1775. Speier, Anny. *Características del dibujo del niño psicótico y su significado simbólico*. [Characteristics of the drawings of the psychotic child and their symbolic significance.] *Acta neuropsychiat. Argent.*, 1961, 7(3), 202-204.—The drawings of 18 psychotic children were studied and analyzed into

formal aspects, symbolic meaning, content, color, symbolism of the house, human figure, fragmentation, and omission of parts.—W. W. Meissner.

1776. Swift, Sheldon. (Los Angeles) *Folie à deux?* *Arch. Dermatol.*, 1961, 84, 932-934.—Laseque and Falret's introduction of the term "folie à deux" in 1877, following the 1st recorded case by Berlyn in 1819, has produced a number of reports on the "psychosis of association." Dermatologic, psychiatric, and psychological data are reported in this study of a middle-aged, married couple with the mutual complaint of hair loss at about the same time, several months previous to their presenting themselves for treatment. The author offers alternative suggestions, drawn from dermatology and psychological medicine, about the etiology of this instance of alopecia areata. This is the 1st report of simultaneous alopecia in persons without a direct blood relationship.—I. N. Mensh.

1777. van der Horst-Oosterhuis, C. (Wilhelmina Gasthuis, Paviljoen III, Amsterdam, Holland) *Quelques idées relatives à la structure du monde des psychotiques*. [Some ideas concerning the structure of the world of psychotics.] *Evolut. psychiat.*, 1961, 26(4), 511-522.—For over 10 years, over a 100 neurotics and some psychotics incapable of verbal communication have been studied by means of pictures and designs which the psychoanalyst encourages them to draw. Spontaneous drawings include faces, animals, arrows, etc. These manifestations enable the therapist to penetrate the unconscious world of the patient, for the lines provide a focus for discussion in which freedom of verbalization and gesture is encouraged. In the patient's private world, physiological sensations are frequent, varied, and abnormal. However, they function as symbols which provide the therapist with clues to their interpretation, and are essential as a basis for diagnosis and treatment.—L. A. Ostlund.

1778. Wright, Jack Mason. (U. Colorado) *Attribution of social responsibility and self concept*. *Dissert. Abstr.*, 1961, 21(11), 3530.—Abstract.

Schizophrenia

1779. Badgley, Theodore M., Holloway, Harry C., & Hedlund, James L. (Walter Reed Army Medical Cent., Washington, D. C.) *Schizophrenia on duty*. *Amer. J. Psychiat.*, 1962, 118(10), 916-920.—"In terms of percentage, given 100 men found to have schizophrenia while in military service and hospitalized at an Army neuropsychiatric treatment center, 93 improved sufficiently to be released to their own care; 25 were returned to active duty; 14 remained on the job until completion of obligated service or for more than 2 years; 12 of these were rated as average or better by the using agency in terms of effective work and adequate social adjustment."—N. H. Pronko.

1780. Bateson, Gregory. (Ed.) (VA Hosp., Palo Alto, Calif.) *Perceval's narrative: A patient's account of his psychosis, 1830-1832*. Stanford, Calif.: Stanford Univer. Press, 1961. xxii, 331 p. \$6.75.—Long before there were any psychiatric theories regarding schizophrenia, John Perceval, son of a Prime Minister of England, wrote this autobiographical account of his 3 years of schizophrenic illness. His story is important from a scientific point of view because it was not influenced by Freudian and other

theoretical viewpoints which have subsequently been proposed. Perceval tells of his illness and recovery with remarkable vigor and insight. The result is a uniquely perceptive account by a schizophrenic of his own reactions; his hallucinations; and the general turmoil, stress, and discomfort of his conditions.—S. B. Coslett.

1781. Chapman, L. J., Burstein, A. G., Day, Dorothy, & Verdone, P. (U. Kentucky) Regression and disorders of thought. *J. abnorm. soc. Psychol.*, 1961, 63(3), 540-545.—Utilizing 2 tests (see 35: 5236; 36: 4JQ14C) devised to assess use of various kinds of words, the responses of elementary school children were compared with the responses of a previously obtained sample of schizophrenics. The purpose of the comparison was to test the assumption that schizophrenia involves a regression to a more primitive, infantile stage, and that the thinking of the schizophrenic would resemble that of the child. On some of the tasks, the thinking of the children and the schizophrenic were similar; on others, the children and the organics were similar. The literal use of the term regression re: schizophrenia was rejected. Methodological problems of research in this area are discussed.—G. Frank.

1782. Ciotola, Paul Vincent. (U. Missouri) The effects of two contradictory levels of reward and censure on schizophrenics. *Dissert. Abstr.*, 1961, 22(1), 320.—Abstract.

1783. DeWolfe, Ruthanne Katherine Sobota. (Northwestern U.) The effect of drive level on the language behavior of process and reactive schizophrenics. *Dissert. Abstr.*, 1961, 21(10), 3162-3163.—Abstract.

1784. Ebner, Eugene. (Purdue U.) Verbal conditioning in schizophrenia as a function of degree of social interaction. *Dissert. Abst.*, 1961, 22(1), 322.—Abstract.

1785. Feffer, M. H. (Yeshiva U.) The influence of affective factors on conceptualization in schizophrenia. *J. abnorm. soc. Psychol.*, 1961, 63(3), 588-596.—2 groups of schizophrenics, distinguished as to their capacity for abstract thinking (see 15: 3039), and normals were presented with stimuli composed of groupings of words constructed so that affect-laden words could be placed in the figure or ground of a gestalt. Schizophrenics characterized as demonstrating "concrete" thinking avoided affect-laden words whether they appeared in the figure or ground of the tachistoscopically presented gestalten. The finding tends to validate the assumption that generalized withdrawal in some schizophrenics is a product of withdrawal from affect-laden stimuli.—G. Frank.

1786. Feldstein, Stanley. (Columbia U.) The relationship of interpersonal involvement and affectiveness of content to the verbal communication of schizophrenic patients. *Dissert. Abstr.*, 1961, 21(11), 3523-3524.—Abstract.

1787. Feldstein, Stanley, & Jaffe, Joseph. (Columbia U.) Vocabulary diversity of schizophrenics and normals. *J. speech hear. Res.*, 1962, 5, 76-78.—30 male schizophrenic and 30 nonpsychiatric (normal male patients with a similar age range (a mean age of 35.5 years) and average intelligence were studied on stimulus material consisting of 4 sets of 5 story-telling pictures. The schizophrenics were receiving tranquilizers during the study. The mean

segmental TTRs (type token ratios) and the TTR variances were obtained from speech samples of the 2 groups and were analyzed by means of analysis of variance. It was found that neither the means nor the variance scores differentiated between the speech of the schizophrenic and normal samples.—M. F. Palmer.

1788. Fould, G. A., & Dixon, Penelope. (Runwell Hosp., Wickford, Essex) The nature of intellectual deficit in schizophrenia and neurotics: I. A comparison of schizophrenics and neurotics. *Brit. J. soc. clin. Psychol.*, 1962, 1(1), 7-19.—Progressive Matrices and Mill Hill Vocabulary Scale scores of 270 schizophrenics and 280 neurotics were compared. It was concluded that, although there was a considerable degree of intellectual deficit in the schizophrenics, this deficit was confined to the initial impact of the illness and was not progressive.—C. M. Franks.

1789. Goldman, Alfred E. (Morristown State Hosp., Pa.) A comparative-developmental approach to schizophrenia. *Psychol. Bull.*, 1962, 59(1), 57-69.—A comparative-development theory, in order to encompass schizophrenic processes, must introduce constructs which suggest a parallelism of various aspects of schizophrenia with the developmental patterns of childhood. The functions of emotion, perception, learning, thinking and language, socialization, and motor functions are examined from this viewpoint. By showing the essential similarity of structure between young children and schizophrenics, it is concluded that the approach is helpful in understanding schizophrenics.—W. J. Meyer.

1790. Grunspun, Haim, & Rossetti, Mafalda. (U. Católica, São Paulo) Terapêutica psicológica e medicamentosa da esquizofrenia infantil. [The psychological and medicinal therapy of childhood schizophrenia.] *Acta neuropsiquiatr. Argent.*, 1961, 7(3), 179-180.—Combined treatment with chlorpromazine and individual psychotherapy is described. Results of 6 cases are presented.—W. W. Meissner.

1791. Guertin, W. H. (U. Florida) Are differences in schizophrenic symptoms related to the mother's avowed attitudes toward child rearing? *J. abnorm. soc. Psychol.*, 1961, 63(2), 440-442.—Mothers of hospitalized schizophrenics were mailed a questionnaire—The Parental Attitude Research Instrument (PARI), Schaefer & Bell, 1958—concerning aspects of the family during the period of development of the patient. The family settings of the currently better adjusted schizophrenics were described as encouraging verbalization, comradeship, and sharing, but also revealed marital conflict; the patient was described as having been withdrawn and psychopathic. The family setting of the pseudo-neurotic schizophrenic was characterized as not involving maternal isolation, irritability, or a martyr complex; and the patient was described as neurotic. In both groups the family setting was described as democratic. Whether or not the current attitudes are consistent with the actual past events remains questionable; the results, however, pointed out the possibility that patients with different schizophrenic symptoms may come from different home environments.—G. Frank.

1792. Guntrip, H. (Leeds U.) The schizoid problem, regression, and the struggle to preserve

an ego. *Brit. J. med. Psychol.*, 1961, 34, 223-244.—Schizoid regression is related to difficulties surrounding the earliest phases of ego development. The particular orientation is an elaboration of views put forward by Melanie Klein and Fairbairn. The ultimate regression involves the split "into an active sado-masochistic Oral Ego . . . and a passive Regressed Ego which seeks to return to the antenatal state of absolute passive dependent security." There is a brief discussion of implications for psychotherapy.—C. L. Winder.

1793. Ilanit, Nathan. (U. Southern California) Some psychological correlates of the process-reactive concept of schizophrenia. *Dissert. Abstr.*, 1961, 21(12), 3852.—Abstract.

1794. King, H. E. (U. Pittsburgh) Anticipatory behavior: Temporal matching by normal and psychotic subjects. *J. Psychol.*, 1962, 53(2), 425-440.—The performance of 30 normal and 30 schizophrenic Ss was observed in an attempt to synchronize a simple motor response with a series of regularly recurring temporal stimuli (auditory). Neither group made exactly coincident responses; the normal group showed a consistently negative and the psychotic group a consistently positive constant error. The differences were significant for most task measures. The findings are discussed in terms of possible relationships to the negative time-error, classical time-judgment, voluntary conditioning, and the psychomotor retardation characteristic of severe behavior disorder.—Author abstract.

1795. Koppenhaver, Neil David. (Purdue U.) The effects of verbal and non-verbal reinforcement on the performance of schizophrenic subjects. *Dissert. Abstr.*, 1961, 22(1), 323-324.—Abstract.

1796. Krinsky, Leonard W. (South Oaks Psychiatric Hosp., N. Y.) Personal beliefs of schizophrenics and their parents. *J. Psychol.*, 1962, 53(2), 387-397.—"Questionnaires designed to measure beliefs regarding innocuous topics, social issues and mental illness were administered once to 40 acutely and 40 chronically ill [male] schizophrenics" and twice to their parents. The parents recorded their own beliefs on one form and what they thought to be their children's beliefs on the other. "Contrary to prediction, mothers and fathers appeared to be more alike than different in relating their beliefs to those of their patient-offspring. The differences which did occur showed fathers to be more projecting and identified but mothers to have more actual awareness of their sons' beliefs." The parents of the chronically ill maintained greater psychological distance than those of the acutely ill patients. (22 ref.)—E. Y. Beeman.

1797. Loch, Wolfgang. Anmerkungen zur Pathogenese und Metapsychologie einer schizophrenen Psychose. [Notes on the pathogenesis and metapsychology of a schizophrenic psychosis.] *Psyche, Stuttgart*, 1962, 15(11), 684-720.—The basic problem in the psychotherapy of schizophrenia, as well as in personality development, is: how can a primary stable identification be secured, so that there is a basis for further ego maturation? The problems encountered in the psychoanalytic therapy of a 22 year old schizophrenic woman are used to illustrate the typical difficulties of treatment.—E. W. Eng.

1798. Long, R. C. (U. Texas) Praise and censure as motivating variables in the motor behavior and learning of schizophrenics. *J. abnorm. soc. Psychol.*, 1961, 63(2), 283-288.—Hullian assumptions regarding drive level were utilized to predict the performance of acute and chronic schizophrenics on learning tasks of varying complexity. Ss were exposed to 3 conditions of reinforcement: censure, praise, and neutral (neither censure nor praise), and faced with simple and complex learning tasks. Acute schizophrenics responded differently from the chronic Ss to the conditions of reinforcement. The performance of the acute group was facilitated on the 2nd task by the experience of being told they were wrong on the 1st; this was not so with the chronic schizophrenics.—G. Frank.

1799. McGhie, A. (Dundee Royal Mental Hosp.) A comparative study of the mother-child relationship in schizophrenia: I. The interview. *Brit. J. med. Psychol.*, 1961, 34, 195-208.—The comparison is of interview data obtained from mothers of schizophrenic, neurotic, and normal adults. There were 20 Ss in each of the matched groups. Overlap of groups, particularly the neurotic and schizophrenics, is noted. Emphasis is given to the very poor marital adjustment reported in the schizophrenic group and to the mothers' overconcern about past physical illnesses in the neurotic group. The results are reported.—C. L. Winder.

1800. McGhie, A. (Dundee Royal Mental Hosp.) A comparative study of the mother-child relationship in schizophrenia: II. Psychological testing. *Brit. J. med. Psychol.*, 1961, 34, 209-221.—Mothers of adult schizophrenics, neurotics, and normals were compared (20 Ss in each group). On a child-rearing questionnaire, mothers of schizophrenics seem overly controlling and seem to fear sex. Sentence completion results indicate greatest mental health among mothers of normals and least among schizophrenics' mothers. Rorschach performances suggest similar pathology of mother and offspring. There is discussion of the findings.—C. L. Winder.

1801. Mitscherlich, Melitta. (Lindemannstr. 40, Düsseldorf, Germany) Zwei Fälle von psychogenem Mutismus. [Two cases of psychogenic mutism.] *Z. psycho-som. Med.*, 1961, 7(3), 172-175.—In a 14-year-old girl and in a 15-year-old boy mutism developed as a symptom of total withdrawal from and a protest-reaction against a world with overpowering demands. The boy was initially diagnosed as schizophrenic. In both cases the symptom was used to avoid responsibilities at a time when sexual impulses first appeared and could not be dealt with. Both patients were cured in a short time with the "scenotest" method.—I. Neufeld.

1802. Modell, Arnold H. (Harvard U.) Hallucinations in schizophrenic patients and their relation to psychic structure. In Louis West (Ed.), *Hallucinations* (see 37: 1588). Pp. 166-172.—10 patients willing to talk about their hallucinations are studied. Hallucinatory "voices" are identified as formerly loved persons, principally the parents, who . . . are fused to the self. . . . They are constant objects and the patient is the center of their world . . . [a defence] against the reality of separation and relates to the early diadic mother-child relationship." These results are related to psychoanalytic concepts.—J. B. Thompson.

1803. Overall, J. E., Gorham, D. R., Shawver, J. R. (VA Hosp., Perry Point, Md.) **Basic dimensions of change in the symptomatology of chronic schizophrenics.** *J. abnorm. soc. Psychol.*, 1961, 63(3), 597-602.—A reanalysis of previously presented data (Shawver et al, 1959) was done to determine what personality factors, as measured by the Lorr Multidimensional Scale for Rating Psychiatric Patients (1953), changed over a period of 6 months of hospitalization. Factor analysis of change scores (6-month ratings subtracted from initial) on the 42-item scale resulted in 6 independent factors. Change was reflected in factors of: mental disorganization, thought guilt, depression, and anxiety. Mental disorganization was seen to be the central factor or primary process in schizophrenic.—G. Frank.

1804. Pokorny, A. D. (VA Hosp., Houston, Tex.) **Background factors in schizophrenia.** *J. nerv. ment. Dis.*, 1962, 134(1), 84-87.—"Forty white male veteran schizophrenics were studied by means of a detailed standardized interview covering nine areas of life adjustment, including family background. The findings were compared with similar data available on two groups of white male veteran tuberculosis patients, those completing treatment ('regular discharge'), and those leaving treatment prematurely ('irregular discharge'). No significant difference in family background factors was found; however, compared to the regular-discharge tuberculosis group, the schizophrenic group showed significantly poorer adjustment in grade school educational achievement, social relations in all age periods, health during childhood, participation in religious activities during childhood, amount of alcoholism, military adjustment, and adult occupational adjustment. It may be that these represent factors leading to schizophrenia, but—equally likely—they may be the early symptoms of schizophrenia."—N. H. Pronko.

1805. Robertson, J. P. S. (Netherne Hosp., Surrey) **Perceptual-motor disorders in chronic schizophrenia.** *Brit. J. soc. clin. Psychol.*, 1962, 1(1), 1-6.—From 70 severely deteriorated schizophrenics 12 Ss showing extreme perceptual-motor disturbances were compared with 12 Ss showing little of such impairments in a series of everyday perceptual-motor tasks such as cleaning shoes. Performance was analyzed in terms of 19 basic disorders. The marked differences between the 2 groups were stable over a short period and apparently unrelated to general neuropsychiatric status, social variables, and differential aptitudes. Partly because of the resemblance of the disorders of those produced by certain drugs and by anoxia it was suggested that the basis of the contrast between the 2 groups was biochemical and fundamental to the etiology of schizophrenics.—C. M. Franks.

1806. Rosenfeld, Joseph G. (Temple U.) **The effects of social reinforcing variables on the word recognition responses of schizophrenic and non-psychiatric patients.** *Dissert. Abstr.*, 1961, 22(1), 326.—Abstract.

1807. Ryan, Leo Robert. (U. Colorado) **An exploratory study of some aspects of listening of schizophrenics.** *Dissert. Abstr.*, 1961, 21(10), 3168-3169.—Abstract.

1808. Rycroft, C. **An observation on the defensive function of schizophrenic thinking and delu-**

sion-formation. *Int. J. Psycho-Anal.*, 1962, 43(1), 32-39.—The dynamics are described of a schizophrenic patient unsuccessfully psychoanalyzed for 4 years. Similarities are pointed out between this patient and Freud's famous case of Schreber.—G. Elias.

1809. Salzinger, K., & Pisoni, Stephanie. (New York State Dept. Mental Hygiene) **Some parameters of the conditioning of verbal affect responses in schizophrenic subjects.** *J. abnorm. soc. Psychol.*, 1961, 63(3), 511-516.—The study explored the effect of verbal reinforcement procedures with a sample of hospitalized schizophrenics. Comparisons were made of the reinforcement effect when it was given at the beginning vs. in the middle of a 30-min. interview. No differential reinforcement effect in terms of timing was found. Moreover, for verbal reinforcement per se to be effective, a number of reinforcements were necessary.—G. Frank.

1810. Schulz, Clarence G. (Chestnut Lodge, Rockville, Md.) **Identität und Genesungsprozess im Verlauf einer schizophrenen Erkrankung.** [Identity and the process of recovery in the course of a schizophrenic illness.] *Psyche, Stuttgart*, 1961, 15(9), 532-560.—"In this paper I have summarized the course of treatment of a schizophrenic reaction by intensive psychotherapy extending over a period of four years. I have considered the recovery of the patient as a re-establishment of his identity and the process of recovery as being parallel to the stages of personality development as conceptualized in Erikson's 'phase-specific social crises.'"—E. W. Eng.

1811. Schwartzman, Alex E., & Douglas, Virginia I. (McGill U., Canada) **Intellectual loss in schizophrenia: Part I.** *Canad. J. Psychol.*, 1962, 16(1), 1-10.—50 schizophrenic veterans demonstrated an average loss of 6 IQ points, with a mean interval of 10 years between premorbid and morbid tests; while a matched sample of 30 normal Ss typically gained the equivalent of 6 IQ points on the Canadian Revised "M." Speed did not account for the deficit. Mechanical aptitude and nonverbal subtests reflected greater deficit than the verbal tests. Ss diagnosed as chronic showed greater deficit than the acute cases.—R. S. Davidson.

1812. Schwartzman, Alex E., & Douglas, Virginia I., & Muir, William R. (McGill U., Canada) **Intellectual loss in schizophrenia: Part II.** *Canad. J. Psychol.*, 1962, 16(2), 161-168.—A follow-up study of 23 of the 50 veterans described in a previous study (see 37: 1811). All were first tested on the Canadian Revised Examination "M" in 1942 when they enlisted, again in 1952 when all but 1 of the present sample were hospitalized for schizophrenia, and last in 1960, when 10 of the 23 were patients. The patients, still under medication, decreased steadily in "M" scores during the 17 year period; but the ex-patients, who had decreased significantly on the 2nd test, increased again to almost equal their premorbid scores.—R. S. Davidson.

1813. Searles, H. F. (Chestnut Lodge) **Phases of patient-therapist interaction in the psychotherapy of chronic schizophrenia.** *Brit. J. med. Psychol.*, 1961, 34, 169-193.—The therapeutic relationship must be understood, in part, in terms of the "feeling-involvements in which the therapist as well as the patient becomes caught up." There is a delineation of what the author has found to be a typical "over-all

pattern of the psychotherapeutic course which that relationship follows over the years of the patient's treatment."—C. L. Winder.

1814. Spoerri, T. *Der Ausdruck der gepressten Sprechstimme ("Würgstimme") bei chronischen Schizophrenen.* [Symptoms of constricted voice ("choked speech") in chronic schizophrenics.] *Confin. psychiat., Basel*, 1961, 4, 123-132.—A study of the voice as an expressive gesture in 13 catatonic schizophrenics showed marked decrease of vowel sounds with corresponding increase of consonantal sounds, making the voice sound "choked." Usually alternating with the "choked voice" was a loose and open "normal voice." The "choked voice" is expressive of interpersonal remoteness and impaired interest in the surroundings.—E. W. Eng.

1815. Sullivan, Harry Stack. *Schizophrenia as a human process.* New York: Norton, 1962. xxxv, 363 p. \$6.50.—"This book covers all the major articles that Sullivan wrote from the beginning of his writing career (1924) through 1935, either through the articles themselves or in the Commentaries." There are also a few post-1935 articles in which schizophrenia is the central subject. The "Introduction" and "Commentaries" were written by Helen Swick Perry. "Harry Stack Sullivan, the Man" by Clara Thompson is also reprinted.—E. Y. Beeman.

1816. van Krevelen, D. Arn., & Kuipers, Christine. *The psychopathology of autistic psychopathy.* *Acta paedopsychiat.*, 1962, 29(1), 22-31.—Using Bleuler's term of "autistic psychopathy" (the inability to make contacts, to react to the world) the authors find Asperger's observations sound: these children are often only children, speech develops slowly, they show original intelligence, develop their own methods, are unable to achieve empathy, and lack intuition. The likeness to the father in these respects makes it probable that autistic psychopathy is constitutionally rooted.—G. Rubin-Rabson.

1817. Will, Otto Allen, Jr. (U. Maryland) *Hallucinations: Comments reflecting clinical observations of the schizophrenic reaction.* In Louis West (Ed.), *Hallucinations* (see 37: 1588). Pp. 174-182.—Hallucinations are considered as reflecting certain aspects of the social field in addition to the patient's participation in earlier interpersonal fields. Hallucinations are symbolic representations of interpersonal experiences, many of which have been kept out of awareness in anxiety reduction, and manifested in situations of increased anxiety. In psychotherapy attention is devoted to providing an environment, in which the therapeutic relationship can be observed in order to reduce anxiety and increase self esteem. (36 ref.)—J. B. Thompson.

Affective Disorders

1818. Dietrich, Heinz. *Analyse sozio-kultureller Faktoren bei depressiven Patientinnen.* [Analysis of sociocultural factors in female depressive patients.] *Confin. psychiat., Basel*, 1961, 4, 110-122.—A study of the social backgrounds of 145 female "endogenous depressive" patients of rural or lower-class urban Bavarian background. The average age of onset of illness was 35 years. Outstanding features of the patients as a group were: socially and emotionally dependent childhood, good to high achievement as pupils and as wives, upward social strivings, lack of inde-

pendence in work position, and a change of objective status preceding the outbreak of illness.—E. W. Eng.

1819. Leon, Carlos A. (U. del Valla) *El contexto temporoespacial como factor en la formación de síntomas depresivos.* [The temporal and spatial context as a factor in the formation of depressive symptoms.] *Acta neuropsiquiat. Argent.*, 1961, 7(4-5), 253-260.—Sensorial association has been restored to a prominent place among the genetic factors of phobic syndromes. Study of 6 clinical cases reveals the following characteristics: (a) they all include an original experience which was charged with depressive affect; (b) a sensory stimulus appears associated spatially or temporally with the original experience; (c) this stimulus evokes a vivid repetition of the original experience; (d) this is so threatening that the patient seeks every possible means to avoid it; (e) when the original experience contains depressive and anxious elements, these acquire phobic and obsessive characteristics; and (f) all cases show clear unconscious motivation for the appearance of the original symptoms and their symbolic relation with the sensory context of the relived experience. (25 ref.)—W. W. Meissner.

Physiological Correlates

1820. Beckett, Peter G. S., Senf, Rita; Frohman, Charles E., Tournay, Garfield, & Gottlieb, Jacques S. (Lafayette Clinic) *Relations between energy transfer systems and the symptoms of schizophrenia.* *Amer. J. Psychiat.*, 1962, 118(11), 995-1003.—"Intracellular energy producing metabolic systems were investigated in erythrocytes before and after insulin stress in 10 control, 10 acute schizophrenic, and 10 chronic schizophrenic male subjects. Following complete clinical study 28 ratings of symptoms and course of illness were made for each subject. Correlation coefficients (r's) were computed between the biochemical and clinical variables. It was found that the primary symptoms were directly related to the failure of mobilization after stress of the compound fructose-1,6-di phosphate. In contrast, the secondary symptoms were not significantly related to biochemical variables. Scores indicating a chronic illness and a poor outcome at followup were found to be directly related to another very important substance in this metabolic scheme. This substance is adenosine triphosphate (ATP). The possible significance of these findings is discussed in relation to a hypothetical serum factor in schizophrenia."—N. H. Pronko.

1821. Bernaldo Moreno, Victoria. (Facultad Farmacia, Lima, Peru) *Serotoninemia en oligofrénicos y esquizofrénicos.* [Serotoninemia in oligophrenics and schizophrenics.] *Acta neuropsiquiat. Argent.*, 1961, 7(4-5), 261-268.—The literature on the relation of serotonin levels in the blood and mental illness is reviewed and the techniques of determination are described. Udenfriend's technique and the spectrophotometric technique of Beckman were used to study serotonin levels in 61 schizophrenics and 17 oligophrenics. No significant difference was found between them, and the concentration of serotonin in the blood of the disturbed patients was similar to that in the apparently sane. (63 ref.)—W. W. Meissner.

1822. Heath, Robert G., Leach, Byron E., & Verster, F. de Balbian (Tulane U.) *Mechanisms*

related to the hallucinogenic effects of taraxein. In Louis West (Ed.), *Hallucinations* (see 37: 1588). Pp. 183-195.—A brief description of an "investigative program to correlate the basic biologic changes with behavior in . . . schizophrenia." Included is "a review of correlations of physiologic activity of the brain with psychotic behavior and a discussion of studies in which a substance found only in the serum of schizophrenics has been demonstrated to be of importance in the induction of these physiologic and behavioral changes, including auditory hallucinations." (22 ref.)—J. B. Thompson.

1823. Suwa, Nozomi; Yamashita, Itaru; Owada, Hiroshi; Shinohara, Seiichi, & Nakazawa, Akiko. (Hokkaido U. School Medicine, Hokkaido, Japan) **Psychic state and adrenocortical function: A psychophysiologic study of emotion.** *J. nerv. ment. Dis.*, 1962, 134(3), 268-276.—44 Ss (including normal controls, schizophrenics, and psychoneurotics) were studied for relationships between psychological state and adrenocortical activity as revealed by circulating eosinophil count, urinary 17-hydroxycorticoids, and uropepsin. Normals and patients in remission showed greater stability of adrenocortical response.—N. H. Pronko.

PSYCHONEUROSES

1824. Arazi, S. (Mental Health Clinic, Ramat Hen) **Tipul nafshi biladim.** [Mental treatment with children.] *Dap. refuim*, 1962, 21, 131-138.—3 cases of emotionally disturbed children suffering from enuresis, stammering, and retardation in general development are broadly described in terms of their symptoms, personality, anamnesis, family, and the process of mental therapy. The way of handling problems is given and the neurotic dynamics analyzed. Description of the children's adjustment after 2 years is included. (English & French summaries)—H. Ormian.

1825. Chapman, A. H. (U. Kansas School Medicine) **Management of emotional disorders: A manual for physicians.** Philadelphia, Pa.: Lippincott, 1962. xvi, 259 p. \$8.50.—It is estimated that from 30% to 70% of the people seeking help from general practitioners in medicine have troubles which are not physical but psychiatric in nature. This book is a manual for such physicians and attempts to deal with most nonorganic problems confronting the general practitioner, to give at least partial answers to the most common of these problems, and to present concrete suggestions and specific advice. Special emphasis is placed on the development of physician-patient rapport conducive to catharsis and the emotional reeducation of the patient. A topical bibliography is included.—R. M. Frumkin.

1826. Dalma, Juan. **Tension entre madre e hija como causa morbigena en las neurosis juveniles.** [Tension between mother and daughter as a morbigenic cause of juvenile neurosis.] *Acta neuropsychiat. Argent.*, 1961, 7(3), 208-214.—The tension between mother and daughter has not received as much attention as the edipus complex, but the primitive maternal fixation often persists permanently in women. 5 cases of such conflict are related to their mythological types in the legends of Electra, Medea, and Myrrha.—W. W. Meissner.

1827. Evrard, E., & Bobon, J. **Pseudo-jargonaphasie de détente chez une psychonevrosée anxieuse en phase d'instabilité choréiforme.** [Pseudo-jargonaphasia during relaxation of an anxious psychoneurotic in phases of choreic instability.] *Acta neurol. psychiat. Belg.*, 1961, 61, 817-822.—"The authors report on the case of an anxious psychoneurotic woman who periodically shows a pseudo-jargon under the form of long strings of syllables without apparent significance. These obvious verbal plays are parallel to anxiety and to its degrees; they keep pace with the exaggerations of a motor instability of choreic type; their structure is elementary, regressive and childish. Under the mask of a play, they are in fact, a primitive modality of defence and relaxation."—V. Sanua.

1828. Guliamov, M. G. **Psikhicheskie narusheniia pri beshestve.** [Mental disturbances in hydrophobia.] Tashkent, USSR: USSR Ministry of Health State Medical Publishing House, 1959. 232 p.—The author reviews the literature on hydrophobia, introduces his own observations of 114 cases, discusses the incubation period and its significance for prophylaxis in adults and children, and suggests therapeutic measures on the basis of his own experience and utilization of Pavlovian theory.—I. D. London.

1829. Lazarus, Arnold A., & Abramovitz, Arnold. (U. Witwatersrand, Johannesburg, South Africa) **The use of "emotive imagery" in the treatment of children's phobias.** *J. ment. Sci.*, 1962, 108(453), 191-195.—Wolpe's reciprocal inhibition technique, involving systematic desensitization with emotion arousing situations presented to the child's imagination, was used with 7 successes out of 9 cases, and with mean number of treatments of 3.3.—W. L. Wilkins.

1830. Rosenfeld, Eva M. **Analyse einer angsthysterie, nach 21 Jahren kritisch betrachtet.** [Critical discussion of an analysis of an anxiety hysteria, 21 years afterwards.] *Psyche, Stuttgart*, 1962, 16(1), 34-49.—2 contrasting methods of analytic interpretation are described. For weak ego conditions the approach of Melanie Klein, a continuous 'decoding' of the patient's unconscious phantasies, is recommended. For strong ego conditions the conventional interpretation of transference in terms of memory repetition and repressed affects is indicated. Both kinds of interpretation are illustrated in the successful treatment of a severely hysterical young woman.—E. W. Eng.

1831. Sen, N. N. (All-India Inst. Mental Health, Bangalore) **An objective study of experimental neurosis: I. An historical and critical review.** *Psychol. Stud., Mysore*, 1961, 6(1), 10-29.—Investigations in experimental neurosis fall into 3 main groups: (a) the characteristics of behavioral abnormality observed in the experimental situation, (b) generalization and persistence of the symptoms after the cessation of the experimentally traumatic situation, and (c) the behavioral correlates or personality types associated with susceptibility of breakdown under experimental stress. A brief review of 47 studies is given with a comparative summary table. Bibliography of studies reviewed appears.—U. Pareek.

1832. Shargil, Avner. (Beilinson Hosp., Petah Tikva) **I-akhila kefiyatit.** [Compulsive anorexia.] *Dap. refuim*, 1962, 21, 185-187.—A case of compulsive anorexia and its treatment based on common sense

(without any psychotherapy) are described, and a follow-up during 2 years is given. Diagnosis and treatment must be conducted by the family physician and in his office. (English & French summaries)—*H. Ormian.*

PSYCHOSOMATICS

1833. **Annell, Anna-Lisa.** *Die Psychopathologie der entzündlichen Hirnschädigung.* [Psychopathology of inflammatory brain diseases in children.] *Acta paedopsychiat.*, 1962, 29, 7-21.—Symptoms have a double genesis: partly organic defects, often relatively slight, and sequential functional disturbances. The latter have often been ascribed to psychopathy or mental deficiency. After careful differential analysis, suitable medication often results in improvement of primary functional disorders. Briefing of family and teachers is essential. Lengthy convalescence is also responsible for the symptoms comparable to those of postencephalitic disorders.—*G. Rubin-Rabson.*

1834. **de Boer, Clemens.** *Zur Frage der psychosomatischen Spezifität unter besonderer Berücksichtigung des Asthma bronchiale.* [The question of psychosomatic specificity with special reference to bronchial asthma.] *Psyche, Stuttgart*, 1961, 15, 801-814.—A review of studies by an Amsterdam psychosomatic research group dating back to 1947, with an emphasis on bronchial asthma. The latter is viewed as primarily a defensive formation against excessive affect discharge in situations of feeling rejected, and secondarily as an anxiety equivalent antecedent to conscious anxiety.—*E. W. Eng.*

1835. **Finch, Stuart M., & Hess, John H.** (U. Michigan Medical School) *Ulcerative colitis in children.* *Amer. J. Psychiat.*, 1962, 118(9), 819-826.—“A brief review of the literature regarding idiopathic ulcerative colitis in both children and adults is presented. The results of our study of 17 children suffering from ulcerative colitis are given, including social, psychological, and psychiatric data. These findings are then discussed and conclusions regarding the work of other investigators and certain psychological formulations are drawn. A speculative hypothesis concerning the etiology of this disease is offered, and some therapeutic principles are suggested.”—*N. H. Pronko.*

1836. **Gittleson, N. L.** (Victoria U., Manchester, England) *Psychogenic headache and the localization of the ego.* *J. ment. Sci.*, 1962, 108, 47-52.—To test the hypothesis that psychogenic symptoms are sited at that part of the body which is felt by a patient to be most vital to him, 29 female and 16 male inpatients were interviewed, along with controls, about what part of the body they considered most important and whether they felt they had souls. Psychogenic headache patients felt that their heads were the most important parts of their bodies, while surgical controls preferred the heart. Presence or absence of depersonalization did not seem important to the main hypothesis.—*W. L. Wilkins.*

1837. **Gordon, Richard Edwards.** (Columbia U.) *Prevention of postpartum emotional difficulties.* *Dissert. Abstr.*, 1961, 21(12), 3873-3874.—*Abstract.*

1838. **Grunspun, Haim, & de Almeida Villar, Zelia.** (U. Catolica, Sao Paulo) *Conceito etiológico do distúrbio psicossomático na criança.* [An etiological concept of psychosomatic disturbance

in development.] *Acta neuropsychiat. Argent.*, 1961, 7(3), 180-181.—Psychosomatic disturbances in development are divided into 2 classes: defensive reactions manifested in disturbances of behavior in different phases of its evolution; and depressive reactions, which are manifested in disturbances of organ systems as such. 5 cases are presented.—*W. W. Meissner.*

1839. **Löfgren, L. B.** *A case of bronchial asthma with unusual dynamic factors, treated by psychotherapy and psycho-analysis.* *Int. J. Psycho-Anal.*, 1961, 42(4-5), 414-423.—*G. Elias.*

1840. **Margolis, M.** (Michigan State U.) *The mother-child relationship in bronchial asthma.* *J. abnorm. soc. Psychol.*, 1961, 63(2), 360-367.—The responses to the Blacky Test and an objective test of attitudes re child rearing—Parental Attitude Research Instrument (PARI), Schaefer & Bell (1955)—of mothers of children with asthma (A), were compared to those of children with rheumatic fever (RF), and a group being seen in out-patient clinic dealing with minor cuts and bruises (healthy controls, H). No differences were found on the PARI, and significance was found on only 2 cards of the Blacky. From these 2 cards, it was concluded that A mothers, as compared to the others, had a greater intensity of edipal conflict and were more inclined to be characterized as oral erotic.—*G. Frank.*

1841. **Meier, C. A.** *Psychosomatik in Jungscher Sicht.* [The Jungian view of psychosomatics.] *Psyche, Stuttgart*, 1962, 15, 625-638.—From the early work of Jung and his followers on the physiological correlates of “complex indicators” to his late emphasis on “synchronicity” there is persistent concern for the underlying unity in psychosomatic transactions. Evidences today for a mediating “third body” are suggestive, but seem to require the development of a “general theory of synchronicity” for their scientific application.—*E. W. Eng.*

1842. **Murphy, George E., Robins, Eli; Kuhn, Nobuko Obayashi, & Christensen, Roger F.** (Washington U., St. Louis) *Stress, sickness and psychiatric disorder in a “normal” population: A study of 101 young women.* *J. nerv. ment. Dis.*, 1962, 134(3), 228-236.—“Of 101 women interviewed shortly after a fullterm pregnancy with normal delivery, 26 were judged to be psychiatrically ill. With 4 exceptions they had not been seen by a psychiatrist.”—*N. H. Pronko.*

1843. **Rubbens, P.** *Psychosomatische visie op het onderzoek van verstandelijk en lichamelijk gehandicapten.* [Psychosomatic views about the study of mentally and physically handicapped people.] *Tijdschr. Stud. Beroepsorient.*, 1961, 8, 152-162.—Summary of the psychosomatic point of view about mental and physical defects.—*R. Piret.*

1844. **Sukiennik, S.** (Central Clinic “Zamenhof,” Tel Aviv) *Hashpaat matsavey dohak nafshi al mahalat hasukeret.* [Influence of mental tension on diabetes.] *Dap. refuim*, 1962, 21, 97-104.—8 cases were described. Mental tension causes overt diabetes only among latent diabetics; it is also likely to aggravate (temporarily, sometimes permanently) existing diabetes. Mental stress causes oversecretion of glucose. Treatment with insulin has to take into consideration the state of mental tension. (English & French summaries)—*H. Ormian.*

EPIDEMIOLOGY

1845. Balier, C. *Hygiène mentale en milieu rural*. [Mental health in the rural setting.] *Hyg. ment.*, 1961, 50(6), 370-392.—A psychiatrist reports the findings of a study of mental illness among farm workers in one of the more agricultural departments of France. Factors taken into consideration include economic impoverishment, lack of recreational opportunities, lack of stimulation and factors rewarding initiative, poor relations between farm workers and farm owners with a resulting dehumanization of the working situation, loss of the more capable workers to industry, and the steadily increasing mean age of the population. Consequences for mental health are discussed, and some suggestions for remedying the situation are offered.—*W. W. Meissner*.

1846. Davies, A. Michael, & Kaplan-Dinur, Atara. (Hebrew U., Hadassah Medical School) *Suicide in Israel: An epidemiological study*. *Int. J. soc. Psychiat.*, 1961/62, 8, 32-44.—The average suicide rate for the period 1949-58 was 10.5 per 100,000; the male-female ratio being 1.3:1. The rates increased with age. Highest rates were seen in the divorced and single and European immigrants; the lowest in married persons and native born. Contributing factors were believed to be the social disorganization attendant on mass immigration from many different countries, the background of oppression and suffering from which many of these people came, and the economic depression of the early years of the state with shortages of food, jobs, and housing.—*R. M. Frumkin*.

1847. Hsien, Rin, & Tsung-Yi Lin. (National Taiwan U. Hosp., Taipei) *Mental illness among Formosan aborigines as compared with the Chinese in Taiwan*. *J. ment. Sci.*, 1962, 108(453), 134-146.—Comparative psychiatric survey of 11,442 aborigines shows rates per thousand: psychosis, 3.9; neurosis, 0.8; mental deficiency, from 1.0 to 4.6, depending upon the tribe—with life-time prevalence rates of total mental disorders of 9.5 per thousand. Schizophrenia is much the same as in Chinese or Western culture and when untreated seems to clear up in less than 2 years. These figures are suggested as possible yardsticks for evaluation of modern treatment procedures and also as indication of the existence of therapeutic resources within the individual and the community.—*W. L. Wilkins*.

1848. Kessel, Neil, & Shepherd, Michael. (U. Edinburgh, Scotland) *Neurosis in hospital and general practice*. *J. ment. Sci.*, 1962, 108(453), 159-166.—Review of statistics of the British population registered under the National Health Service suggests that age and sex prevalence curves for psychiatric illnesses differ, especially for neuroses, from hospital data curves. There is a rise from youth to early maturity but no subsequent decline in prevalence, with women showing a plateau between the years 35-55. The traditional association of neurosis with young adult life is not supported by data derived from general medical practice. (42 ref.)—*W. L. Wilkins*.

1849. Lund, Frederick H. (Los Angeles State Coll.) *The cause of mental illness*. *Education*, 1962, 82, 432-437.—It is fairly evident that schizophrenia, psychiatry's biggest problem, has its origin

in disordered chemistry and stressed-induced defects of the regulatory mechanisms, central and peripheral, which govern the processes essential to internal equilibrium. The author discusses the stress syndrome, critical value of adrenal secretions, severity of stress symptoms, induced emotional stress, failure of stress mechanisms, sub-par autonomic functions, deficient brain function, other chemical imbalance, faculty detoxification, induced psychoses, and susceptibility to mental illness.—*S. M. Amatora*.

1850. Rabassini, A., Rigo, L. *Contributo al problema della genesi delle psicosi. A proposito di tre casi di psicosi familiare*. [Contribution to the genetic problem in psychosis: Aposops of three cases of family psychosis.] *Arch. Psicol. Neurol. Psychiat.*, 1962, 23(2), 88-107.—Interactions in 3 psychotic families are discussed from the viewpoint of prevention of schizophrenia.—*L. L'Abate*.

1851. Wortis, Joseph, & Wortis, Helen. (New York U.) *La relación entre deficientes condiciones socio-económicas y ciertas incapacidades psiquiátricas en la infancia*. [The relationship between deficient socioeconomic conditions and certain psychiatric disabilities in infancy.] *Acta neuropsiquiat. Argent.*, 1961, 7(3), 167-170.—3 reasons are advanced for the higher incidence of psychiatric disability in lower classes: (a) the complications and deficiencies of conception and birth which produce cerebral defects or damage are more frequent among the lower classes; (b) in a poor family, a child is exposed more often to poor nutrition, infections, accidents, etc. which may affect cerebral function and produce psychological disturbances; and (c) they suffer certain educational and social deprivations which tend to complicate and retard mental development.—*W. W. Meissner*.

EDUCATIONAL PSYCHOLOGY

1852. Astin, Alexander W. "Productivity" of undergraduate institutions. *Science*, 1962, 136 (3511), 129-135.—A new method for evaluating the "PhD productivity" of undergraduate institutions was applied to a sample of 265 institutions. It was found that a college's actual PhD output can be predicted relatively accurately from an "expected" output based on the sex, major fields, and intelligence level of its students. Public institutions were found to be significantly overproductive, and eastern men's colleges and universities were found to be significantly underproductive. Previous findings indicating that the faculty had a causative effect on productivity were not confirmed. These results suggest that PhD productivity may not be a sensitive measure of the effectiveness of undergraduate institutions.—*Journal abstracts*.

1853. Bigge, Morris L., & Hunt, Maurice P. (Fresno State Coll.) *Psychological foundations of education: An introduction to human development and learning*. New York: Harper, 1958. xiii, 530 p. \$7.50.—A beginning text in educational psychology, with a "nonelective . . . cognitive-field" approach, but some comparison with alternative systems. It includes sections on What is nature of human nature? How do human beings develop? How do human beings learn? How is psychology used in the classroom? Annotated bibliography with each chapter.—*E. B. Page*.

1854. Blumenfeld, Walter. (U. Nacional Mayor San Marcos, Peru) *Psicología del aprendizaje*. (2nd ed.) [Psychology of learning.] Lima, Peru: Univer. Nacional Mayor San Marcos, 1961. (Textos Universitarios No. 5) 240 p.—A textbook in learning written principally for education students and giving special attention to Gestalt principles. (99-item bibliogr.)—G. B. Strother.

1855. Creegan, Robert F. (State U. New York, Albany) *Dare we teach doubt?* *Sch. Soc.*, 1961, 89, 416-417.—Human beliefs may be said to maintain a steady state if learning about the factors which determine or encourage the proposal of solutions to problems is tantamount to learning to doubt that the proposals are definitive. Doubt arises with the quest for intellectual rigor, is based on reasoning, and is an integral part of any cognition as distinct from fancies and feelings. Some social and educational implications are discussed.—*Author abstract*.

1856. Crookston, B. B., & Blaesser, W. W. (U. Utah) *An approach to planned change in a college setting*. *Personnel guid. J.*, 1962, 40(7), 610-616.—A systematic method of diagramming situations in which organizational change is desired, is described. The rate of change will be strongly accelerated in the years ahead. Controlled or planned change will come about only by means of some type of systematic methodology. Force-field analysis is the core of an approach which has been found useful.—S. Kavruck.

1857. Gavrieli, Nahum. *Orhot hinukh*. [Methods of education.] Tel Aviv, Israel: Otsar Hamore, 1962. 440 p.—“The author speculates on the nature of the educational methods . . . and tries to understand the mental events connected with them.” Thus, all described methods of education are brought in connection first of all with corresponding mental phenomena. Then, educational-psychological problems are discussed: order, discipline, work, physical culture, play, habit formation, warning and threat, competition, praise and blame, recognition and strengthening of the child, educators and educands, the educator's personality, as well as specific educational problems.—H. Ormian.

1858. Golan, Shemuel. *Hahinukh hameshutaf*. [Common education (in the Kibbutz).] Merhaviah, Israel: Sofriyat Poalim, 1961. 398 p.—The 1st (posthumous) volume of Golan's collected writings including 38 papers on the following topics: principles and methods of common education, its factors, institutions, social structure, problems and solutions, status and achievements. “Common education” is treated as a new social phenomenon and analyzed from sociological, psychological, and educational aspects.—H. Ormian.

1859. Goldhammer, Keith, & Elam, Stanley. (Eds.) *Dissemination and implementation*. Bloomington, Ind.: Phi Delta Kappa, 1962. xi, 200 p. \$3.00.—6 papers presented at the 3rd annual Phi Delta Kappa Symposium on Educational Research are included along with discussions of the papers. Held at the University of Oregon, the conference theme was research dissemination and implementation. Papers given were: “Problems in the Use of Electronic Data Processing for the Storage and Availability of Research Data” by Allen Kent; “The Role of Private Philanthropy in the Dissemination and Im-

plementation of Educational Research” by John Gange; “The Role of School Study Councils and Local School Districts in the Dissemination and Implementation of Educational Research” by Ronald F. Campbell; “The Function of the United States Office of Education and the State Departments of Education in the Dissemination and Implementation of Educational Research” by David L. Clark; “The Use of the Inter-Institutional Agencies in the Dissemination and Implementation of Educational Research” by Paul B. Jacobson; and “Problems in the Use of Communication Media in the Dissemination and Implementation of Educational Research” by Andrew W. Halpin. Halpin emphasizes the dearth of good research in education as well as the reluctance to put into practice research findings that require tougher attitudes.—W. Coleman.

1860. Marshall, Helen R. (Drexel Inst. Technology) *Training adults to judge children's social acceptance*. *J. educ. Psychol.*, 1962, 53, 27-31.—To determine whether specific training improves the accuracy of adult judgments of children's social acceptance, 290 college students enrolled in a course requiring observation of a preschool group were divided into a control group, a group trained in factual knowledge, and a group exposed to a standard as well as to factual knowledge. Accuracy of judgment was tested 6 weeks after training. Results suggested that reduction as well as improvement in accuracy may result from training. Accuracy decreased when information as to earlier sociometric choices was provided, and increased after factual knowledge training. IQ was related to accuracy of judgment after training limited to factual knowledge, while personality characteristics influenced judgments only when no training was given.—*Journal abstract*.

1861. Murphy, Gardner. (Menninger Found.) *Freeing intelligence through teaching*. New York: Harper, 1961. 64 p. \$2.95.—This book is a revision of the 4th John Dewey Society lectureship presentation. The analysis of the teaching process traces relationships between rational and personal factors. The primordial psychic reality is said to involve both impulse and cognition. Love of subject matter and method are impossible without acceptance of the self and cathexis upon the self as seeker, knower, and lover of reality. In every relation between teacher and student a full transactionalism is demanded in harmony with the indicated hypotheses. A definite warning is given against theories to the effect that rationality can be seized by direct assault. While a crash program approach may attract attention by appealing to current public anxieties, more reasoned circuitous routes must be recommended by any systematic psychologist of personality.—R. E. Creegan.

1862. Rhodes, William C. (George Peabody Coll.) *Psychological techniques and theory applied to behavior modification*. *Except. Child.*, 1962, 28, 333-338.—With the increasing number of educationally focused programs for emotionally disturbed children, “there will probably be a growing demand for knowledge of behavior modification which might be applied in a classroom situation. . . . One resource which has not been fully utilized is the body of theory and laboratory findings of psychology, which does not require training in psychotherapy.” A review of the literature is presented.—J. Z. Elias.

1863. Van Dalen, Deobold B. (U. Pittsburgh) **Understanding educational research: An introduction.** New York: McGraw-Hill, 1962. xi, 432 p. \$6.95.—After inviting readers into the world of research and exploring the psychological and logical substrata of scientific investigations, the text gives them some insight into how scholars tackle investigations: how they locate problems; some of the methods, procedures, and tools that they employ; the general sequence of events that occurs during an investigation; the skills and knowledges required to undertake various types of studies; the library and its resources that are available, and the study habits and attitudes that are conducive to fruitful work. The objective of the book is to imbue students with a respect for the scientific spirit of inquiry and to acquaint them with problem solving techniques. To aid those who have a limited background in psychology, logic, and mathematics, the text orients the more sophisticated research matters to everyday experiences. The audience for which it is intended is for mature upperclassmen and graduate students pursuing their master's degree in education.—P. D. Leedy.

SCHOOL LEARNING

1864. Adams, Sydney. (Arlington, Va.) **How good is a prescribed mnemonic device in learning textbook content?** *J. educ. Res.*, 1962, 55(6), 267-271.—In a study of college students taking a course in educational psychology, the author found that a prescribed mnemonic device did not seem to help either rote or meaningful learning. On the other hand, the device did not appear to increase the time spent in learning. He reviews the literature of mnemonics and suggests that the techniques may be revived by those seeking unconventional approaches to problem solving.—F. Goldsmith.

1865. Anisfeld, M., & Lambert, W. E. (McGill U.) **Social and psychological variables in learning Hebrew.** *J. abnorm. soc. Psychol.*, 1961, 63(3), 524-529.—Attitudes towards the social group employing the language, reason for studying the language, and intelligence were posited as parameters affecting the learning of a 2nd language. The investigation focused on Jewish 8th- and 9th-grade students learning Hebrew. The results indicated that ability and attitude facilitated learning.—G. Frank.

1866. Beach, L. R. (Whitworth Coll.) **Use of instructorless small groups in a social psychology course.** *Psychol. Rep.*, 1962, 10(1), 209-210.—"Experimental small groups of students working independently of formal class instruction in social psychology were superior to Ss in a conventional class on several measures. This teaching approach was thus more efficient in terms of instructor time and college facilities."—B. J. House.

1867. Beliaev, B. V. **Ocherki po psikhologii obuchenii inostrannykh iazykam.** [Essays on the psychology of teaching foreign languages.] Moscow, USSR: RSFSR Ministry of Education, 1959. 174 p.—This book on the psychology of teaching and learning foreign languages is intended for use by foreign language teachers and students of languages in pedagogical institutes.—I. D. London.

1868. Bosley, Howard E. **Class sizes and faculty-student ratios in American colleges.** *Educ. Rec.*, 1962, 43(2), 148-153.—A survey of published studies

on the effects of class size and the trends in a number of state colleges yields the following conclusions: (a) previous studies have exerted no observable influence on current practice; (b) most of the evidence from small-class versus large-class investigations is inconclusive, (c) total student load is more significant than either faculty-student ratios or average class size; and (d) personal characteristics of the instructor, the type of subject matter, the maturity, drive, and intelligence of the students, are factors which influence the effectiveness of large group instruction.—W. W. Meissner.

1869. Bruner, Jerome S. (Harvard U.) **Afrontement et defense.** [Threat and defense.] *J. Psychol. norm. pathol.*, 1961, 58(1), 33-56.—A discussion of the nature of school learning and factors interfering with scholastic achievement based on findings in children of normal intelligence with "learning blocks." Among the topics treated are: anxiety and drives, identification, preemptive metaphor, the double bind, and therapy.—M. L. Simmel.

1870. Coleman, J. C. **Learning method as a relevant subject variable in learning disorders.** *Percept. mot. Skills*, 1962, 14, 263-269.—Results on the Learning Methods Test for underachievers failed to disclose method of presentation superiority (visual, phonic, kinesthetic, or combination in learning new words). Visual and combination methods tended to be most efficient for some Ss.—W. H. Guertin.

1871. Durr, William K. (Michigan State U.) **Provisions for the gifted in relation to school size and system size at the elementary level.** *J. educ. Res.*, 1962, 55(4), 149-158.—The author surveyed 316 Michigan elementary schools and found: (a) Larger schools from larger systems are more likely to have planned programs for the gifted. (b) Small schools use partial segregation more often than large schools, while large schools use extracurricular activities more often than small schools. (c) Although a wide variety of identification procedures are used, schools in large systems use group intelligence tests to a greater extent than do schools in small systems. (d) Schools in small systems are more likely to feel hindered by inadequate finances in establishing programs, while schools in larger systems are more likely to say they do not need a planned program or that they have too few gifted to warrant it. Increasing interest in the gifted will probably lead to more planned programs.—F. Goldsmith.

1872. Goldbeck, Robert A., & Campbell, Vincent N. (American Inst. Research) **The effects of response mode and response difficulty on programmed learning.** *J. educ. Psychol.*, 1962, 53(3), 110-118.—2 experiments in junior high school classes compared overt, covert, and reading response modes. In Experiment I, 63 Ss completed a program of independent facts at 1 of 3 levels of difficulty. An analysis of covariance of test scores showed an interaction between response mode and difficulty ($p < .05$), the overt group performing below the other groups at the low difficulty level and above the other groups at the intermediate difficulty level. In Experiment II, 62 Ss completed a continuous discourse program on light. The 3 response modes plus a 4th option mode were used in a simple randomized design. The reading group surpassed the other groups on both immediate (NS) and 10-week retention ($p < .05$) tests.

In both experiments the reading groups learned most per time spent ($p < .01$).—*Journal abstract*.

1873. Harper, Robert S. (Knox Coll.) **Variability, conformity, and teaching.** *Teachers Coll. Rec.*, 1962, 63(8), 642-648.—Adapted from presidential address to Division on Teaching of Psychology, American Psychological Association, September, 1961. The author urges more variability or novelty in teaching procedures.—H. K. Moore.

1874. Huaux, Jacques. **Le transfert de l'entraînement en pédagogie expérimentale.** [Transfer of training in experimental pedagogy.] Louvain, Belgium: Éditions Nauwelaerts, 1961. 94 p. 110 FB.—A synthesis of research of a positive nature relating to the transfer of training from one teaching situation to another. Besides detailing the principal results obtained in studies of this kind, a comprehensive review of the existing theories is included. Finally, the need for more, and better studies dealing with specific aspects of realistic classroom situations is pointed up. (80 ref.).—G. H. Mowbray.

1875. James, Newton E. (U. Arizona) **Personal preference for method as a factor in learning.** *J. educ. Psychol.*, 1962, 53, 43-47.—Do individuals who learn material utilizing a preferred method actually learn better than those utilizing a method other than their choice? A total of 503 basic airmen at Lackland Air Force Base were grouped according to expressed preference between reading and lecture as modes of receiving elementary Air Force technical training prose. Each group was then subdivided randomly, one segment being given learning material utilizing the mode of choice with the other segment utilizing a different mode. No differences were found on posttests between Ss receiving material in mode of choice and those receiving material in mode unlike that chosen.—*Journal abstract*.

1876. Jensen, Arthur R. (U. California) **Spelling errors and the serial-position effect.** *J. educ. Psychol.*, 1962, 53(3), 105-109.—The relative frequencies of spelling errors as a function of letter position have been examined for 7-, 9-, and 11-letter words selected at random from the Thorndike-Lorge word list. These were administered to 150 8th graders, and 89 juniors college freshmen, respectively. The distribution of errors according to letter position was found to closely approximate the classical skewed, bow-shaped, serial-position curve for errors generally found in serial rote learning. Other features in common between spelling and serial learning were discussed. It is suggested that a theory of serial learning and of the serial-position effect may be germane to the psychology of spelling.—*Journal abstract*.

1877. Menchinskaja, N. A. (Ed.) **Primenenie znaniĭ v uchebnoi praktike shkol'nikov.** [The application of knowledge in the written work of school children.] Moscow, USSR: RSFSR Academy Pedagogical Sciences, 1961. 375 p.—The essays included in this book report on the results of "psychological investigations" of the application of classroom-learned theory to textbook problems in arithmetic, geometry, physics, botany, and machine practice and repair.—I. D. London.

1878. Reichenberg-Hackett, W. (Duke U.) **Practices, attitudes and values in nursery group education.** *Psychol. Rep.*, 1962, 10(1), 151-172.—

Detailed descriptions were recorded by teams of observers of behavior of teachers in 11 nursery school classes. Records were analyzed according to categories described as teacher's approach (communicative or noncommunicative), motivating techniques, activities, lessons, and values. Quantitative and qualitative comparisons were made of the various classes, and the effect of teacher personality on the class was discussed.—B. J. House.

1879. Steiner, Elise. **The nursery school idea.** *Develpm. Med. child Neurol.*, 1962, 4(2), 184-194.—The historical background is sketched briefly, especially the increasing awareness of the importance of mental health factors following the last war and the investigations of Anna Freud, Susan Isaacs, John Bowlby, et al. Included in the consideration of disiderata are the provisions of creative materials, "the scope given for physical and intellectual 'stretching' by materials which stimulate the children to investigate . . . experiment and adventure, the stimulus of permissive relationship with adults, and the growing importance of language in the child's life at this stage."—T. E. Newland.

1880. Torrance, E. P., & Myers, R. E. (U. Minnesota) **Teaching gifted elementary pupils research concepts and skills.** *Gifted child Quart.*, 1962, 6(1), 1-6.—A 3 year old program for the teaching of research knowledges, skills, and attitudes to gifted elementary school children is described. The "What's in the Box" game was used for teaching hypothesis making. "How did you grow" exercises were used in teaching historical research. "Ask and guess test" was used in the teaching of testing of significance. Randomization and quantification were also discussed. Students executed their own experiments and wrote reports containing statements of purpose, procedure, results, discussion, and conclusions. On the basis of written responses to a test on research facts, the authors concluded that the children grasped basic research concepts.—N. M. Chansky.

1881. Traxler, Arthur E. (Ed.) **Improving the efficiency and quality of learning.** Washington, D. C.: American Council on Education, 1962. viii, 175 p. \$2.50.—"A report of the Twenty-sixth Educational Conference, New York City, October 26-27, 1961, held under the auspices of the Educational Records Bureau and the American Council on Education." Included are a review by the editor; 15 papers on programed instruction, teaching devices, testing, and progress reports (on revised curricula in mathematics, science, languages, etc.); 1 symposium on reading; and the report of the 27th Annual Meeting of the Educational Records Bureau.—M. L. Kelly.

1882. Tsitsishvili, N. E. (Uznadze Inst. Psychology, Tbilisi, USSR) **Zapis' chisla v raznykh sistemakh schisleniia v V klasse srednei shkoly.** [Number-writing in different systems of counting in the fifth grade of the secondary school.] *Soobshch. Akad. Nauk Gruz. SSR*, 1962, 28(2), 249-257.—Experimental teaching of different number systems to 11-12-yr.-old pupils shows that it is useful to do this instead of concentrating on the decimal system as the only system of number formation. Furthermore, it is recommended that the latter system be taught deductively so as not to interfere with subsequent generalization to other systems of number formation.—I. D. London.

INSTRUCTIONAL AIDS

1883. Archangel'skiĭ, S. N., Endovitskaia, T. V., & Neverovich, I. A. Z. *Nagliadnye posobiia i opyty v kurse psikhologii*. [Visual aids and experiments in the psychology course.] Moscow, USSR: Uchpedgiz, 1958. 104 p.—This manual of visual aids and experiments for use in the introductory course in psychology is intended for instructors in pedagogical institutes.—I. D. London.

1884. Carter, Launor F. (System Development Corp., Santa Monica) *Automated instruction*. *Amer. Psychologist*, 1961, 16, 705-710.—"One of the major differences between the SDC teaching machine and others is the great flexibility that is achieved by using a small, digital computer as the control mechanism for the teaching." An example to illustrate its characteristics is presented. The "most important problem in the teaching machine area is not the design of the machine itself but rather the design of good instructional material. It is felt that not enough research has been done to demonstrate the way in which instructional materials should best be prepared; similarly, there has not been enough research to demonstrate the conditions under which this type of automated education can yield good results."—S. J. Lachman.

1885. Cassel, R. N., & Ullom, W. L. (Lompoc Unified Schools, Calif.) *A preliminary evaluation of programmed instruction with students of high ability*. *Psychol. Rep.*, 1962, 10(1), 223-228.—"A self-instructional program on computer mathematics, presented by a teaching machine [AutoTutor Mark II], was administered to 32 9th- and 12th-grade students of high ability at the Lompoc High School. A highly significant amount of learning as measured by gains on a criterion test, resulted." Student attitudes were favorable.—B. J. House.

1886. Deutschmann, Paul J., Barrow, Lionel C., Jr., & McMillan, Anita. (Michigan State U.) *The efficiency of different modes of communication*. *Audiovis. Commun. Rev.*, 1962, 10(3), 176-178.—"Efficiency in learning was defined as the discrepancy between the amount of relevant information and the amount of irrelevant information a student learned." 74 Ss in an engineering course were tested immediately following 4 "laboratory" sessions conducted under different conditions. An hypothesized rank order of efficiency of conditions was confirmed. TV film communication was most efficient followed by film only, laboratory plus film, and natural laboratory.—R. E. Schutz.

1887. Edfeldt, Åke W. (Stockholm U.) *Automatic teaching: Principiella synpunkter*. [Automatic teaching: Fundamental points of view.] *Nord. Psykol.*, 1962, 14(1), 6-20.—A review of the early work in the field of automated teaching and the recent rapid development initiated along 2 different lines by Skinner and Crowder, respectively. A comparison of Skinner's and Crowder's different types of methods and aids suggests that a combined method produces the best learning situation. The advantages of automated teaching at certain junctures in a curriculum are stressed.—L. Goldberger.

1888. Filby, Yasuko. *Teaching machines: A review of theory and research*. *Nord. Psykol.*, 1961, 13(5), 209-256.—The literature on teaching machines is critically reviewed under the following rubrics:

empirical principles from learning theories applicable to automated teaching (positive reinforcement, law of effect, the reinforcing event, conditions for maximal efficiency of positive reinforcement, individual differences), advantages of automated teaching, approaches to automated teaching (Skinner, Pressey, Crowder, Homme and Glaser), survey of the experimental literature (feedback, gradual progression, role of errors in learning, branching or fixed sequence, mode of response, mechanized vs. nonmechanized presentation, pacing). The author concludes with suggestions for future research. (60 ref.)—L. Goldberger.

1889. Gagne, R. M., & Dick, W. (Princeton U.) *Learning measures in a self-instructional program in solving equations*. *Psychol. Rep.*, 1962, 10(1), 131-146.—A detailed description is presented of learning, retention, and transfer measures obtained from a teaching machine program in solving equations administered to 52 7th-grade mathematics students. The program, which made use of a "successive approximations" method, was presented as a set of booklets. The study also investigated the effect of verbalization of a concept on performance. Student reactions to the program were sampled by a questionnaire.—B. J. House.

1890. Geis, George L. (Hamilton Coll.) *Some considerations in the evaluation of programs*. *Audiovis. Commun. Rev.*, 1962, 10(1), 64-69.—Deficiencies in error count and time scores as criteria for evaluating programmed learning are discussed. Evaluation should focus on measuring terminal behavior and identifying the reinforcements in a program.—R. E. Schutz.

1891. Gilpin, John. (Earlham Coll.) *Design and evaluation of instructional systems*. *Audiovis. Commun. Rev.*, 1962, 10(2), 75-84.—A consideration of means of securing comparability of programmed learning data. This can be achieved by appropriately defining and specifying the objectives of instruction (instructional task), designing a means of accomplishing the task (instructional system), and developing tests that will ascertain whether or not students accomplish the task. Measures of time and money can then be used as appropriate dependent variables.—R. E. Schutz.

1892. Harclerod, Fred. (Alameda County State Coll., Hayward, Calif.) *Theoretical formulations in audiovisual communications*. *Rev. educ. Res.*, 1962, 32(2), 119-126.—"In the past 6 years major changes and additions took place in advancement of audiovisual theory. A few key summaries and articles have been selected to document the enormity of the changes and the radical shifts in emphasis. Impetus for the changes came from the determination of Congress that public education has become a first-line item in national defense. Continuance of this concern appears probable. The next 3 to 5 years may well see an even greater emphasis on audiovisual research and an even closer relationship with psychologists and their work in developing a theory of human learning." (33 ref.)—F. Goldsmith.

1893. Horrocks, J. E. (Ohio State U.) *Case study tests in human growth and development*. Columbus, O.: C. E. Merrill, 1960. (5 sets, \$4.80 each)—5 tests for use in undergraduate and graduate courses and for inservice programs. The 1st test, A Test of Knowledge of Facts and Principles: Ado-

lescent Development, may be used as a pre- or end-test; its reliability is $.91 \pm .017$. The other 4 are case study tests to assess a student's ability in diagnosis and in choosing remedial procedures; their reliabilities range from .73 to .79.—C. T. Morgan.

1894. Kabanova-Meller, E. N. (Inst. Psychology, APN RSFSR, Moscow, USSR) *O probleme konkretnogo i abstraknogo v umstvennoi deyatel'nosti uchashchikhsya*. [On the problem of the concrete and abstract in mental activity of pupils.] *Vop. Psikhol.*, 1961, 7(6), 173-178.—This is a review of foreign (mainly Western) psychological investigations of the title topic. The work of the Gestalt psychologists and others working in this tradition is briefly described, emphasizing the concept of reorganization. For example, Hartman's idea that processes of abstraction and generalization occur during perception is discussed. Work of others on the use of visual aids and on how material is abstracted from visual aids is summarized. This part of the review is extended to include studies in which the relative concreteness of the stimulus materials affected performance (mainly problem solving studies). Foreign as well as Soviet studies of the problem of the abstract and concrete are criticized for confounding with irrelevant variables.—H. Pick.

1895. Keislar, Evan R., & McNeil, John D. (U. California, Los Angeles) *A comparison of two response modes in an auto-instructional program with children in the primary grades*. *J. educ. Psychol.*, 1962, 53(3), 127-131.—To test the value of overt responding with young children, a total of 198 primary grade children divided into 2 matched groups were individually taught, by a teaching machine, a 3-week unit in physical science. The overt response group was required to respond to each frame by selecting the correct answer before the program would advance. The nonovert response group merely observed the entire program as it was automatically presented. Both groups learned significantly more than an uninstructed control group, but the difference between nonovert and overt responders was not significant.—*Journal abstract*.

1896. Ketcham, Carl H., & Heath, Robert W. (U. Arizona) *Teaching effectiveness of sound with pictures that do not embody the material being taught*. *Audiovis. Commun. Rev.*, 1962, 10(2), 89-93.—A brief taped narration dealing with a fictional holdup-murder followed by arrest and execution was presented to groups of graduate students with various sets of 35mm black-and-white slides. Mean scores on a 30-item multiple choice criterion test were significantly different at the .01 level with groups ranked from high to low as follows: sound plus relevant pictures, sound only, sound plus pictures of geometric forms, and sound plus irrelevant pictures.—R. E. Schutz.

1897. Klaus, David J. (American Inst. Research, Pittsburgh) *The art of auto-instructional programming*. *Audiovis. Commun. Rev.*, 1961, 9(2), 131-142.—A discussion of what programmed instruction is and the variety of situations in which it is being used is followed by an explanation of the steps and rules to be followed in good programming.—E. L. Borrowman.

1898. Kopstein, Felix Friedrich. (U. Illinois) *An experimental exploration of the interaction be-*

tween teaching and learning behavior. *Dissert. Abstr.*, 1961, 21(12), 3861-3862.—*Abstract*.

1899. Krumboltz, John D., & Weisman, Ronald G. (Stanford U.) *The effect of overt versus covert responding to programmed instruction on immediate and delayed retention*. *J. educ. Psychol.*, 1962, 53, 89-92.—To test the effect of overt vs. covert responding in programmed instruction, 54 undergraduates in educational psychology were randomly assigned to 4 groups: a group who wrote down each response, a group who "mentally composed" each response, a group who read the program in which the blanks were already filled, and a control group who wrote their answers to a completely different program of about the same length. A 50-item test was administered following the study period, and an alternate form 2 weeks later. The 3 response mode groups did not differ significantly on the 1st test. However, on the delayed test the written response group scored significantly higher than the other 2 groups. The control group scored significantly lower on both tests. Thus, overt responding appears to increase delayed retention.—*Journal abstract*.

1900. McNeil, John. (U. California) *An experimental effort to improve instruction through visual feedback*. *J. educ. Res.*, 1962, 55(6), 283-285.—A 5-week performance of 10 student teachers, divided into 3 groups each under a different condition, was evaluated by 307 pupils. Teachers in the experimental group received visual feedback which indicated their teaching performance. Teachers in one control group systematically asked questions to obtain information as to whether or not pupils understood, but had no special channel for receiving the information. Teachers in a 3rd group taught without experimental arrangements. Differences among the groups in terms of performance change of student teachers were not significant. Therefore, the author believes that (a) feedback messages must be detailed and sophisticated and (b) the teacher must know how to change her procedures if she is to meet student needs.—F. Goldsmith.

1901. McNeil, John D., & Keislar, Evan R. (U. California, Los Angeles) *Questions versus statements as stimuli to children's learning*. *Audiovis. Commun. Rev.*, 1962, 10(2), 85-88.—A test of the hypothesis that programmed learning presented in question form requiring no overt response results in greater learning and preference for the topic taught than the same program arranged as a series of statements. 134 2nd and 3rd grade Ss were assigned to 3 matched groups. One group was exposed to a 432-frame program on molecular theory in question form. Another was exposed to the same material in statement form, and a 3rd control group was exposed to an entirely different program. No significant differences in either achievement or preference posttests were found between the 2 experimental groups, although both achieved significantly more than the control group.—R. E. Schutz.

1902. Meierhenry, Wesley C. (Ed.) (U. Nebraska) *Learning theory and AV utilization*. *Audiovis. Commun. Rev.*, 1961, 9(5, Suppl. No. 4), 88 p.—This issue of the journal is devoted to the contributions of various areas of psychology to audiovisual education. Abraham S. Luchins discusses the implications of Gestalt psychology; Howard H.

Kendler, those of stimulus-response psychology; and Leo Postman, those of human learning. Robert Glaser discusses "Learning and the Technology of Instruction," and Frederick J. McDonald writes on "Motivation and the Communication Process." James Deese summarizes and discusses possible applications.—*E. L. Borrowman.*

1903. Minter, Philip C., Albert, Fritz A., & Powers, Richard D. (U. Wisconsin) Does presentation method influence film learning? *Audiovis. Commun. Rev.*, 1961, 9(4), 195-200.—Among 185 girls in 7th-grade sewing classes the opportunity for discussion and note taking between sections of a film "promoted significantly more learning than did" written questions spliced into the film, rest pauses during the showing of the film, or "continuous showing without comment or questions." This effect showed only for the higher-intelligence and initially-uninterested groups. There were no differences between methods for the lower-intelligence or prior-interest groups.—*E. L. Borrowman.*

1904. Pask, G., & Lewis, B. N. An adaptive automation for teaching small groups. *Percept. mot. Skills*, 1962, 14, 183-188.—In this paper it was first argued that the automated teaching of small groups requires, for most skills, a rather special kind of adaptive automation which can organize the group members by manipulating their channels of communication. An example of such an automation was then described and its potentialities pointed out.—*W. H. Guerin.*

1905. Patel, A. S., & Parlikar, R. K. (Maharaja Sayajirao U., Baroda) Comprehension of learning material as a function of aural, visual and pictorial presentation of material. *MANAS*, Delhi, 1961, 8, 15-19.—Boys scored better in auditory (A) in a single method of presentation and visual plus auditory (VA) in a combined method of presentation, while girls scored better in visual (V) in a single method of presentation and visual plus auditory plus pictorial (VAP) in a combined method of presentation. There were significant differences among 3 groups of intelligence.—*U. Pareek.*

1906. Popham, W. James. (San Francisco State Coll.) Tape recorded lectures in the college classroom. *Audiovis. Commun. Rev.*, 1961, 9(2), 109-118.—"A research methods class was divided into two sections which were equated on the basis of scholastic aptitude as well as scores on two different types of achievement pre-tests. The control section was taught by a standard lecture-discussion approach while the experimental section was taught primarily by a series of 34 half-hour taped lectures. A brief discussion period permitted the instructor (in person) to answer questions regarding the taped lectures. On the basis of group performances on several criterion measures, no statistically significant differences . . . were found."—*E. L. Borrowman.*

1907. Popham, W. James. (San Francisco State Coll.) Tape recorded lectures in the college classroom. II. *Audiovis. Commun. Rev.*, 1962, 10(2), 94-101.—36 students enrolled in a pre-service teacher education course were assigned to 2 sections in matched pairs. A "conventionally-taught section was instructed by a standard lecture-discussion approach. The tape-taught section listened to hour-long taped lectures and discussed the content" with a student

discussion leader. No significant differences between the group performance of the 2 sections were found on several criterion measures at the end of the semester.—*R. E. Schutz.*

1908. Rigney, Joseph W., & Fry, Edward B. (Electronics Personnel Research Group, U. Southern California) Current teaching-machine programs and programming techniques. *Audiovis. Commun. Rev.*, 1961, 9(3; Suppl. No. 3), 122 p.—This issue is given over to an interpretative and descriptive report on programs and programming. Common terminology of the field is defined, programming rules and techniques are summarized, and the types of programs now available are described. Part II includes samples of 81 programs in areas ranging from biology and bridge to spelling and statistics.—*E. L. Borrowman.*

1909. Roe, Arnold. (U. California, Los Angeles) Automated teaching methods using linear programs. *J. appl. Psychol.*, 1962, 46, 198-201.—186 freshman engineering students studied elementary probability by different teaching methods. Multiple choice teaching machines, free-response teaching machines in individual booths, free-response teaching machines in a classroom, programed textbooks requiring overt responses and providing correct answers, programed textbooks requiring no overt responses, "programed" lecturers, and standard lecturers were compared. No significant differences were observed between the performance of the students learning by any of the programed machine, programed textbook, or programed lecturer methods: all of the programed methods were significantly better than the standard lecturer.—*Journal abstract.*

1910. Roe, K. Vlachouli; Case, H. W., & Roe, A. (U. California) Scrambled versus ordered sequence in autoinstructional programs. *J. educ. Psychol.*, 1962, 53, 101-104.—A 71-item autoinstructional program on elementary probability was presented in scrambled and in properly ordered sequence, respectively, to 2 groups—each of 18 psychology students classified according to prior mathematical ability. Students proceeded once through the linear program at their own pace and were given a test immediately after. The sequence of items had no significant effect on (a) time required for learning, (b) error score during learning, (c) criterion test score, and (d) time required for criterion test. This suggests that rather than being an absolute requirement, the careful sequencing of items in an autoinstructional program may be a function of such variables as length of program, information content of items, and individual learner differences.—*Journal abstract.*

1911. Silvern, Leonard C. (Hughes Aircraft Co., Culver City, Calif.) Teaching machine technology: The state of the art. *Audiovis. Commun. Rev.*, 1962, 10(3), 204-217.—A discussion on the history and current status of machine instruction viewed as a system with special attention to its relevance for industrial training.—*R. E. Schutz.*

1912. Smith, W., & Moore, J. W. (Bucknell U.) Size-of-step and achievement in programed spelling. *Psychol. Rep.*, 1962, 10(1), 287-294.—"Ss ($n = 96$) learned spelling words by one of six methods in which size-of-step and cues were varied. Analysis of errors showed that effects of treatments

were not distinguishable, but the large-step method saved time."—*B. J. House.*

1913. **Wesley, Frank.** (Portland State Coll.) **Silents please.** *Audiovis. Commun. Rev.*, 1962, 10 (2), 102-105.—4 groups of 40 psychology students viewed the film, "The Baby's Day at 12 Weeks," under one of the following conditions: once without sound, once with sound, first without sound and then with sound, and first with and then without sound. From a Chi-square analysis of an observation checklist completed by the Ss it is concluded "that the auditory aspects of the film . . . superseded the visual ones. . . . The viewer when presented 'equivocal' material gives precedence to audition. By thus accepting and remembering only the narrator's point of view, he may narrow his own judgment and inquisitiveness."—*R. E. Schutz.*

ATTITUDES & ADJUSTMENT

1914. **Agarwal, Vimla.** **Factors in ways of life.** *Psychol. Stud., Mysore*, 1962, 7(1), 52-63.—156 students responded to a scaled questionnaire on 9 ways of life. 4 main factors were extracted through the centroid method of factor analysis. The results show that values are multidimensional. The 4 common basic variables revealed are: achieving end by any means, self-restraint, purity of thought, speech and action, and salvation through selfless action. The value span of the Indian student is enclosed by dimensions of social restraint, detachment, and activity. "His preference for activity indicates his appreciation to change." The scale appears in appendix.—*U. Pareek.*

1915. **Becker, Selwyn W., & Siegel, Sidney.** (U. Chicago) **Utility and level of aspiration.** *Amer. J. Psychol.*, 1962, 75(1), 115-120.—"Evidence is presented that a person's level of aspiration can be measured by obtaining a scale of utility of his goals. A conceptual scheme for ranking all possible higher ordered metric scales in terms of a definition of level of aspiration is detailed and tested by predicting changes in the level of aspiration. Utility of grades was obtained before and after a mid-term examination and changes in the level of aspiration were predicted."—*R. H. Waters.*

1916. **Bozhovich, L. I., & Blagonadzhina, L. V.** (Eds.) **Voprosy psikhologii lichnosti shkol'nika.** [Problems in the psychology of the school child's personality.] Moscow, USSR: RSFSR Academy Pedagogical Sciences, 1961. 407 p.—Several studies are presented on various aspects of character and attitudinal development in children and adolescents within the context of the Soviet school.—*I. D. London.*

1917. **Cowell, Charles C., & Ismail, A. H.** (Purdue U.) **Relationships between selected social and physical factors.** *Res. Quart. Amer. Ass. Hlth. Phys. Educ. Recr.*, 1962, 33(1), 40-43.—Interrelationships between personal distance (degree of personal acceptance), motor fitness and athletic aptitude were studied using 83 boys in the 10-12-year-old age range. The relationship of athletic aptitude to leadership was studied in the same group. Another group of 75 boys of junior high school age was used to study the interrelationships between social adjustment, motor fitness, and athletic aptitude. In still another group of 45 freshmen university football squad members, the relation of personal distance scores to foot-

ball ability, as judged on a man-to-man rating basis on 9 items, was studied. All relationships were found to be positive, moderate, and significant at the 1% level of confidence.—*Journal abstract.*

1918. **Fleming, Elyse S., & Weintraub, Samuel.** (Western Reserve U.) **Attitudinal rigidity as a measure of creativity in gifted children.** *J. educ. Psychol.*, 1962, 53, 81-85.—The performance of 68 academically talented elementary school children on a battery of verbal and nonverbal creativity tests was correlated with performance on a paper and pencil test purporting to measure attitudinal rigidity. A moderate negative relationship ($r = -.41$) was found to exist between rigidity and verbal creativity only. Investigation of the relationship of chronological age, intelligence, and sex indicated that while neither sex nor intelligence were significant factors, chronological age appeared to be related to verbal creativity production. Refinement of the rigidity measure seems indicated as an administratively feasible technique for the rough screening of verbally creative children.—*Journal abstract.*

1919. **Freer, James Joseph.** (Wayne State U.) **The effects of scholastic success and failure on the relationship among self-concept, ideal self, and level of aspiration.** *Dissert. Abstr.*, 1961, 22(1), 347.—*Abstract.*

1920. **Gildea, Margaret C. L., Glidewell, John C., & Kantor, Mildred B.** (Washington U. Medical School, St. Louis) **Maternal attitudes and general adjustment in school children.** In John C. Glidewell (Ed.), *Parental attitudes and child behavior* (see 37: 913). Pp. 42-89.—"The studies showed significant relationships between social class of the families and the attitudes of the mothers toward child rearing. Upper class mothers most often felt confident of their methods, saw the child as in need of limited parental control, felt responsible for the behavior of their children, and potent to influence the outcome of problems of child rearing. Middle class mothers were the in between group. . . . The lower class mothers felt least confident of their methods. . . . The studies showed little relationship between specific attitudes and adjustment in school children, but significant relationships between patterns of attitude combinations and adjustment."—*W. J. Meyer.*

1921. **Gordon, Leonard V., & Mensh, Ivan N.** (USN Personnel Research Activity, San Diego, Calif.) **Values of medical students at different levels of training.** *J. educ. Psychol.*, 1962, 53, 48-51.—A cross-sectional study of changing values of medical school students was performed by administering a values test, the Survey of Interpersonal Values, to all members of the 1st through 4th year classes in a large medical school. A predicted decrease in Benevolence, from the 1st through the 4th year, was found. Significant increases in Support, Recognition, and Independence and a significant decrease in Conformity were also noted. The present findings have implications for the practice of applying personality data obtained on occupational groups to high school or college counselees.—*Journal abstract.*

1922. **Grinker, Roy R., Sr., Grinker, Roy R., Jr., & Timberlake, John.** (Michael Reese Hosp., Chicago) **"Mentally healthy" young males (homoclitics): A study.** *Arch. gen. Psychiat.*, 1962, 6(6), 405-453.—65 "normal" students of George William

College were interviewed, and 80 replied to a 700-item questionnaire. Results indicated that these lower and lower middle class Ss from all over the United States and Canada with IQ range 88-133 came from warm, loving, consistent, limit-setting, slightly compulsive parents. Ss deal with anxiety by physical activity or withdrawal. Goals are to be and do good, help others, and be liked. Ss lack ambition to improve upon their parents' status and/or income. Ss are neither creative nor introspective. Grouping into very well, fairly well, and marginally adjusted evidences significant factors. Psychiatric, psychologic, psychoanalytic, and sociologic literature on the concept of mental health. (59 ref.)—*L. W. Brandt*.

1923. Gruen, Walter. (Beth Israel Hosp., Boston) **Attitudes of German exchange students during a year in the United States.** *Publ. opin. Quart.*, 1959, 23(1), 43-54.—25 German exchange students in labor relations were interviewed at the beginning and end of a year's stay at a large American university. Ages ranged from 21 to 25; 22 students were males. Interviews covered social, political, and economic areas, in a relatively unstructured fashion. Responses were judged on 74 attitudinal dimensions with a 7-point scale, then narrowed to 56 after refinement. From cluster analysis comparing pre- and postmeans "The four changes observed were toward a more intimate acquaintance with some United States social conditions, a view of the American as less carefree than had been thought, perception of more class distinctions in our society, and an even greater rejection of family life in the United States."—*E. P. Hollander*.

1924. Haring, Norris G., & Phillips, E. Lakin. **Educating emotionally disturbed children.** New York: McGraw-Hill, 1962. xvii, 322 p. \$6.50.—This volume describes "how a structured program in the classroom can be implemented to meet the requirements of the emotionally disturbed child" at reasonable cost and without requiring additional, full-time professional mental health personnel. A selected review of past educational practices and recent uses of classroom structure is followed by a detailed description of the experimental project and its methods—including selection criteria for staff and students, materials for special classes, use of consultants for discussing problem situations, and generalizing results obtained to the education of less disturbed children. Parent group meeting protocols, teachers' observations, and a rating scale are appended. (51 ref.)—*H. P. David*.

1925. Ivaschenko, F. I. (Pedagogical Inst., Stavropol', USSR) **Usloviya formirovaniya u shkol'nikov polozhitel'nogo otnosheniya k sel'skokhozyaistvennomu trudu.** [Conditions for the formation in school children of a positive attitude towards agricultural work.] *Vop. Psikh.*, 1961, 7(6), 27-36.—Notwithstanding the contribution the school children are making to agricultural production, their attitude toward this work isn't always good. Analysis of conversations and written topical assignments suggest that the best attitude comes when the students understand the larger significance of the work. On the other hand, not being able to see tangible results of their efforts, the students may not develop positive attitudes. They further want to put their practical training into practice and don't appreciate not being given the opportunity to use their skills. Other important factors include the variety

of work performed and the method of payment. Payment seemed most conducive to favorable attitudes toward work when it was made to the group and not to the individual.—*H. Pick*.

1926. Kersh, Bert Y. (Teaching Research, Oregon State System of Higher Education, Monmouth) **The motivating effect of learning by directed discovery.** *J. educ. Psychol.*, 1962, 53, 65-71.—High school students were taught 2 novel rules of addition by a programmed booklet procedure. Subsequently, $\frac{1}{2}$ of the 90 Ss were given individual guidance in discovering the explanation for the rules ("guided discovery"), $\frac{1}{4}$ were taught the explanation by a programmed booklet ("directed learning"), and the remaining $\frac{1}{4}$ were given no further instruction ("rote learning"). A questionnaire and a test of recall and transfer given 3 days, 2 weeks, and 6 weeks later favored the Rote Learning and Guided Discovery groups. The questionnaire indicated that the Guided Discovery group practiced the rules during the time interval between the learning and test period more than Ss in other groups (chi square, $p = .05$). The data support the hypothesis that self-discovery motivates the S to practice more and thus to remember and transfer more than he might if taught directly.—*Journal abstract*.

1927. Lane, W. Clayton. (Stanford U.) **The lower-class girl in college: A study of Stanford freshman women.** *Dissert. Abstr.*, 1961, 21(11), 3540.—*Abstract*.

1928. Lighthall, Fredrick F. (U. Chicago) **Some theoretical and measurement problems associated with changes in anxiety: Comments on "Anxiety in Connection with School Performance. Part III."** *Pedag. Forsch.*, 1961, No. 4, 263-276.—(See 36: 1HC77R) A stable and highly predictable position effect, consisting of an "improved" score upon 2nd testing (in test-retest or counterbalanced designs), has been found in several studies using anxiety scales with children. 2 hypotheses have been proposed to account for this effect: (a) defensive mobilization and (b) anxiety dissipation. The latter hypothesis appears untenable, while the former is shown to account for a wide range of disparate findings.—*L. Goldberger*.

1929. Liversidge, W. (U. Leicester) **Life chances.** *Sociol. Rev.*, 1962, 10(1), 17-34.—616 children from selected grammar and modern schools were sampled to determine the relative influence of educational background and social origin on occupational expectations and aspirations. While admitting that previous experience is partly a determiner, the authors state that "the most potent force operating is undoubtedly the experience through which the child passes during his involvement in that part of the educational system to which he has been assigned."—*H. Angelino*.

1930. Mogensen, A. **Perceived substructures and emotional attitudes towards a test battery and its parts.** *Scand. J. Psychol.*, 1962, 3(1), 30-32.—The potential value of an experimental and phenomenological approach for the study of the perception and cognition of ability tests is stressed. Some preliminary results from a pilot study of 12 students are given. The relationship between the Ss' emotional attitudes towards the tests and their perceptions and cognitions of the tests are briefly discussed.—*Journal abstract*.

1931. Montague, Anita C. (Temple U.) A factorial analysis of the "basic" interest patterns of two hundred women college students in various curricular groups. *Dissert. Abstr.*, 1961, 22(1), 324.—*Abstract*.

1932. Norton, Bruce Augustus. (Ohio State U.) Personality characteristics of militarists and pacifists. *Dissert. Abstr.*, 1961, 21(10), 3167.—*Abstract*.

1933. Parker, Erma B., & Reiss, Grace. Reluctance to go to school: A report of a follow-up study. *Soc. Wk.*, 1962, 7(2), 71-74.—The study confirms other reported studies in finding that reluctance to attend school often reflects the child's anxiety at separation from love-object, usually the mother. With early attention in the school setting only 1 of 18 children showed overt symptoms at time of the follow-up.—G. Elias.

1934. Prasad, R. G., & Singh, B. K. Some important characteristics of teachers and students. *Psychol. Stud., Mysore*, 1962, 7(1), 23-31.—235 undergraduate and postgraduate students and 45 teachers checked the questionnaire. All 3 groups mentioned 'knowledge of the subject' as an important characteristic of a good teacher. The qualities mentioned by students for good teachers are: honesty, impartiality, and good character. Undergraduate students gave more importance to teachers' interest in students and impressive appearance, while the postgraduate students preferred facility of expression. Both teachers and students agreed that good students are laborious and intelligent.—U. Pareek.

1935. Rebizov, D. G. (Pedagogical Inst., Ryazan', USSR) Ob otnoshenii uchastchikhsya k ucheniyu i trudu. [On the attitude of pupils toward study and work.] *Vop. Psikh.*, 1961, 7(6), 19-26.—Defining an attitude as a complex psychic phenomenon (and a substantial component of consciousness) school teachers and senior pedagogical institute students collected data on the attitudes of 8th and 9th grade pupils in village and city schools. Their methods involved long term observation of pupils during study and work, conversations with the pupils and their parents, analysis of the products of their work, etc. On the basis of these, judgments about the attitudes of pupils were made paying particular attention to such characteristics as initiative, discipline, attention, awareness of responsibility, etc. The village pupils received a somewhat lower evaluation than the city students, 67% vs. 84% receiving "good" or "excellent" evaluations. Sample protocols are given. 4 groups are distinguished: these who have a positive attitude towards study and work, those who have a positive attitude towards only work or towards only study, and finally, those who have a negative attitude towards both. The schools and family life are criticized for not developing proper motives in children.—H. Pick.

1936. Rosen, Marvin. (U. Pennsylvania) Valence, expectancy and dissonance reduction in the prediction of achievement striving. *Dissert. Abstr.*, 1961, 21(12), 3846.—*Abstract*.

1937. Siegel, Gerald M. (U. Minnesota) Inter-examiner reliability for mean length of response. *J. speech hear. Res.*, 1962, 5, 91-95.—Tape recordings were made of the verbalizations of 15 boys and 15 girls in response to the Children's Apperception Test cards. The Ss ranged in age from 11 to 17 years,

with a mean of 14.5, and were all residents of the Parsons (Kansas) State Hospital and Training Center for retarded children. The tape recordings were typed and the responses judged by 2 secretaries specifically trained. 2 other persons were trained to count the number of words in the 50 responses analyzed. The 4 individuals were equivalent with a reliability of .94. The average mean length of response used by the retarded children in the present study was considerably shorter than that used by normal 8-year-old school children studied by another investigator.—M. F. Palmer.

1938. Sutter, Cyril Robert. (Fordham U.) A comparative study of the interest and personality patterns of major seminarians. *Dissert. Abstr.*, 1961, 22(1), 328.—*Abstract*.

1939. Thistlethwaite, Donald L. (Vanderbilt U.) Fields of study and development of motivation to seek advanced training. *J. educ. Psychol.*, 1962, 53, 53-64.—Follow-up of 1086 academically talented college students, initially planning to enroll in one of 15 major fields of study, supports the hypothesis that faculty pressures and activities influence the student's desire to seek advanced training. Men who report that their teachers exert relatively strong press for independence, supportiveness, and affiliation—or who are exposed to Honors programs or to peer groups characterized by openness to faculty influence—tend to raise their aspirations for advanced training more than men not reporting such press. Plausible rival interpretations in terms of precollege characteristics were ruled out by covariance analysis. Differences between fields of study are greatest with respect to faculty press for humanism, scientism, vocationalism, and student social welfare orientations.—*Journal abstract*.

1940. Ueda, Toshimi. (Nara Gakugei U., Nara City, Japan) A study of anger in Japanese college students through the controlled diary method. II. *J. Nara Gakugei U., cultural soc. Sci.*, 1962, 10(2), 341-348.—Teachers' college freshmen recorded the instances when they felt anger during the day. No significant sex differences were found in frequency of anger responses but male students' anger tended to be milder and of shorter duration. Introverts tended to be angered by "abstract problems" and to experience intense anger more frequently and of longer durations than extroverts who were angered by "thwarted plans."—E. L. Borrowman.

1941. Washburn, Wilbur C. (U. California, Berkeley) Patterns of protective attitudes in relation to differences in self-evaluation and anxiety level among high school students. *Calif. J. educ. Res.*, 1962, 13(2), 84-94.—A forced-choice item test sampling 15 defense mechanisms was administered to groups of high school and college students. Support was found, at less than the .01 level of confidence, for the 3 hypotheses posited: (a) individuals who perceive themselves as inadequate will tend to develop more hostile defenses than those who perceive themselves as adequate in relation to others, (b) persons who evaluate themselves as inadequate will tend to adopt more retreating defenses than those regarding themselves as adequate, and (c) persons characteristically having more anxiety will tend to have fewer defensive attitudes justifying unacceptable behavior and avoiding blame than individuals experiencing less anxiety.—T. E. Newland.

1942. Wells, Harry K. (Hartwick Coll.) **Religious attitudes at a small denominational college as compared with Harvard and Radcliffe.** *J. Psychol.*, 1962, 53(2), 349-382.—An inventory of religious attitudes at Hartwick, a small church-related college, and a comparison of the findings with the results of the Allport-Gillespie-Young Harvard-Radcliffe study. The general conclusion is that the trend away from orthodoxy and sectarianism toward ecumenicism, ethical Christianity and secularism is as true at Hartwick as at Harvard and Radcliffe. However, in the former case it has not developed as far and, therefore, the level of religious attitudes is higher at Hartwick than at Harvard-Radcliffe. Where as Allport, Gillespie, and Young had predicted a marked difference between student religious attitudes at Harvard-Radcliffe and a small denominational college, the Hartwick findings indicate a difference within an essential identity. There is little appreciable difference between Hartwick and Harvard men. The Hartwick women account for most of the difference between coeducational Hartwick and Harvard-Radcliffe.—*Author abstract.*

1943. Witty, Paul. (Northwestern U.) **A study of pupils' interests: Grades 9, 10, 11, 12.** *Education*, 1961, 82, 39-45.—A representative sample of 300 pupils at each grade level, 9 through 12, was used to study the interests of pupils in the Chicago area. The questionnaire method was used to secure responses to inquiries concerning pupil's voluntary and preferred activities in 4 areas: television, radio, and movie pursuits; recreation and hobbies; vocational ambitions and educational choices; and the amount and nature of reading. Results of the study are analyzed and presented in 14 tables.—*S. M. Amatora.*

1944. Witty, Paul. (Northwestern U.) **A study of pupils' interests: Grades 9, 10, 11, 12.** *Education*, 1961, 82, 100-110.—This is the 2nd part of a study of high school pupils' interests (see 37: 1943). The present study deals with play and recreation interests and with reading interests with high school students. Analyses include seasonal activities preferred; outdoor sports or activities; objects constructed by pupils, extent of pet ownership; indoor sports and activities; extent of musical instruments played; home chores or duties; time spent in daily reading outside of school; influence of TV, radio, and movies upon reading; kinds of reading liked; kinds of stories liked; best books read; books other than story books liked; magazines best liked; favorite comic books and comic strips; and general activity preferences. Materials are presented in 25 tables.—*S. M. Amatora.*

1945. Witty, Paul. (Northwestern U.) **A study of pupils' interests: Grades 9, 10, 11, 12.** *Education*, 1961, 82, 169-174.—This is the 3rd in a series of studies of interests of high school pupils (see 37: 1943, 1944). The present investigation deals with vocational and educational interests of high school pupils. Presented in a series of 8 tables, interests are analyzed as follows: vocational preferences of boys and of girls, percentage of pupils holding part-time jobs, categories of jobs held, pupils who plan to attend college, parents who want their children to attend college, pupils who plan to attend business college or special school, best-liked subjects in high school, and subjects in which pupils reported best marks received.

All data are broken down by sex and by upper and lower division.—*S. M. Amatora.*

1946. Zavalloni, Marisa. (Columbia U.) **Youth and the future: values and aspirations of high school students in a multicultural society in transition-Trinidad, W. I.** *Dissert. Abstr.*, 1961, 21(11), 3542.—*Abstract.*

1947. Zimmerman, Elaine H., & Zimmerman, J. (Indiana U. Medical Center) **The alteration of behavior in a special classroom situation.** *J. exp. Anal. Behav.*, 1962, 5(1), 59-60.—"Unproductive classroom behavior was eliminated in two emotionally disturbed boys by removing social consequences of the behavior. Behavior which was more adequate and efficient with respect to social and scholastic adjustment was shaped and maintained with social reinforcers."—*Author abstract.*

SPECIAL EDUCATION

1948. Kirk, Samuel A. (U. Illinois) **Educating exceptional children.** Boston, Mass.: Houghton Mifflin, 1962. xvi, 415 p. \$6.00.—A comprehensive introductory textbook dealing with exceptional children and their special educational needs. The author found "the concept of split growth, or discrepancies in growth" particularly applicable to exceptional children and considers this the main contribution of his book. The exceptional child is defined as "that child who deviates from the average or normal child in mental, physical, or social characteristics to such an extent that he requires a modification of school practices, or special educational services, in order to develop to his maximum capacity." Discussion questions and selected references after each of the 14 chapters.—*B. Lowenfeld.*

Reading

1949. Ball, Richard J. (Owosso, Mich.) **Visual functioning in reading disability.** *Education*, 1961, 82, 175-178.—The present experiment was carried out at the Reading Center at Michigan State University with 200 children tested at the center. The purpose of the study was to show the necessity for communication between the visual specialists and the reading specialists. Results showed that visual disability may be a more serious problem in reading disability than previous research has shown.—*S. M. Amatora.*

1950. Brown, Charles M. (U. Southern California) **Whither basal reading.** *Education*, 1961, 82, 3-5.—An experiment was conducted to investigate the claim for the values of an individual reading program versus a basal reading program. Included in the study were 21 elementary, 5 junior high, 3 high schools and 1 junior college in Los Angeles County. The author concluded that from observations made and data obtained, the basal reading program had produced excellent results in the county. It is problematical whether an individualized reading program would have improved these results to any appreciable degree. No change to the individualized program was recommended.—*S. M. Amatora.*

1951. Harris, Theodore L. (U. Wisconsin) **Summary of investigations relating to reading: July 1, 1960 to June 30, 1961.** *J. educ. Res.*, 1962, 55(5), 197-220.—"Research related to reading in the previous year shows several promising trends. A

number of the investigations revealed great care in experimental design to control significant variables. Thorough and scholarly analyses of related research accompanied others. A willingness to examine intensely the significant learning processes in reading was likewise evident, as was cooperative endeavor among workers representing several disciplines of study. As such efforts are continued, they should advance the understanding of reading processes, effects, and conditions, to the more effective utilization of reading in daily life." (148 ref.)—*F. Goldsmith.*

1952. Kawi, Ali A., & Pasamanick, Benjamin. (State U. New York, Coll. Medicine) *Prenatal and paranatal factors in the development of childhood reading disorders. Monogr. Soc. Res. Child Develpm.*, 1959, 24(4, Whole No. 73), 80 p.—With the hypothesis that there exists an association between maternal and fetal factors and the development of reading disabilities, the authors compared the prenatal and paranatal records of 372 white male children with reading disorders with the records of a similar number of matched controls. The results indicate an existing relationship between certain abnormal conditions—such as premature birth, toxemias of pregnancy, and bleeding during pregnancy—and subsequent reading disorders. The suggestion is that some reading disorders are a component of the continuum of reproductive casualty.—*J. S. Braun.*

1953. Keating, L. E. A pilot experiment in remedial reading at the hospital school, Lingfield, 1957-60. *Brit. J. educ. Psychol.*, 1962, 32(1), 62-65.—Instruction was changed from reading in a class to "reading at mother's knee." Many procedures were used. Results suggest that the time and effort spent were worthwhile.—*B. T. Jensen.*

1954. Langmeier, J., Matějček Z., & Konias, V. Vývojová dyslexie: II. Některé otázky hodnocení špatného čtení. [Developmental dyslexia: II. Appraisal of reading disabilities.] *Ceskoslov. Psychol.*, 1961, 5, 223-233.—Reading ability of 382 children aged 7-10 years selected at random from 18 Prague schools was compared with that of 352 children designated by teachers as the worst readers in the class. Reading speed, number, and kind of errors were analyzed. Results may serve as a basis for the appraisal of the reading maturity of children by clinical psychologists. The scale for the appraisal of severe dyslexia defects is being prepared. (Russian & English summaries)—*V. Bricháček.*

1955. Lovell, K., Johnson, E., & Platts, D. (U. Leeds) A summary of a study of the reading ages of children who had been given remedial teaching. *Brit. J. educ. Psychol.*, 1962, 32(1), 66-71.—210 boys and girls who had received at least 3 months of class or individual remedial reading were retested from 12-48 months afterwards. After remedial teaching ceased, improvement in reading age was 58% and 55% for individual and class teaching, respectively, when compared with improvement during instruction. Other results are discussed.—*B. T. Jensen.*

1956. Robinson, Francis P. (Ohio State U.) *Effective reading.* New York: Harper, 1962. viii, 94 p. \$1.35.—Presents the SQ3R (Survey, Question, Read, Recite, Review) method of reading.—*C. H. Miley.*

1957. Roche, Helen. (Kramer School, Center Line, Mich.) *Junior Primary in the Van Dyke Level plan.* *J. educ. Res.*, 1962, 55(5), 232-233.—

In September 1943 a pilot study was started in Michigan schools to test the possibility of replacing the rigid grade system by a flexible plan of self-pacing in the reading situation. The plan was called the Level System. After 10 years of research the following conclusions were drawn: children not ready for reading profit more by being kept in a readiness situation until prepared for formal reading than by being placed in the 1st grade, failing and having to repeat the work. Moving children ahead into a formal reading program only after they succeed on the junior primary level does not delay their school progress. Their rate in moving ahead depends on their speed of maturation in mental, social, and emotional areas. This cannot be accelerated.—*F. Goldsmith.*

1958. Tjossem, Theodore D., Hansen, Thomas J., & Ripley, Herbert S. (U. Washington School Medicine, Seattle) *An investigation of reading difficulty in young children. Amer. J. Psychiat.*, 1962, 118, 1104-1113.—24 children with reading problems were studied from a medical and psychological standpoint with special attention given to the medical history as a diagnostic tool. An evaluation of 2 different methods of instruction in reading is made by relating the children's performance to the results of diagnostic assessment.—*N. H. Pronko.*

1959. Troxel, Vernon. (U. Kansas) *The effects of purpose on the reading of expository materials in grade eight. J. educ. Res.*, 1962, 55(5), 221-227.—The purpose for reading influences the speed with which the material is read. Those who read the expository mathematical material faster and with greater accuracy also tend to achieve higher scores on the general reading ability test, but this relationship is not perfect. The relationship between high scores on general reading ability tests and superior scores for speed and accuracy are reduced when intelligence is held constant. Speed and comprehension scores on a general reading test are not necessarily good predictors of speed and accuracy for other kinds of material read for other purposes. Ability to read expository mathematical material successfully is no accurate indicator of success in arithmetic. There is a tendency for faster readers to be more accurate when they are reading expository mathematical material.—*F. Goldsmith.*

1960. Walters, Richard H., Loan, Malle Van, & Crofts, Irene. (U. Toronto) *A study of reading disability. J. consult. Psychol.*, 1961, 25(4), 277-283.—"Retarded readers performed more poorly on two perceptual tasks involving recognition of form . . . slower in opening a compartment to look for a male nude doll . . . chose their father less often on a simple parent preference test." Psychoanalytic and parental theories are discussed.—*E. R. Oetting.*

MENTAL RETARDATION

Gifted Students

1961. James, Newton E. (U. Arizona) *A motivational and surveillance program for talented college students. Personnel guid. J.*, 1962, 40(8), 723-727.—The study was designed to stimulate scholarship in students who appeared to have high potential for academic achievement. While the program objectives cannot be conclusively demonstrated, several beneficial by-products have been secured.—*S. Kavruck.*

1962. Klausmeier, Herbert J., & Ripple, Richard E. (U. Wisconsin) Effects of accelerating bright older pupils from second to fourth grade. *J. educ. Psychol.*, 1962, 53, 93-100.—An experiment was conducted to ascertain the effects of accelerating from 2nd to 4th grade pupils of superior learning abilities (SLA) who were above the median CA of all 2nd graders and who had attended a 5-week summer session. The Ss were 1 group of 26 accelerated to the 4th grade; 2 groups of 26 nonaccelerated 3rd graders of SLA, 1 above and 1 below median CA; 2 groups of 26 nonaccelerated 4th graders of SLA, 1 above and 1 below median CA; and 2 groups of 26 nonaccelerated 4th graders of average learning ability, 1 above and 1 below media CA. Based on the performance of the Ss on 32 measures, no unfavorable academic, social, emotional, or physical correlates of acceleration were found. Acceleration of pupils of SLA and above median CA after a 5-week summer session seemed desirable.—*Journal abstract*.

1963. Smith, David Wayne. (U. Arizona, Tuscon) A broader concept of giftedness. *Education*, 1962, 82, 295-298.—Various approaches to the concept of giftedness are explored, pointing out also the distinction between giftedness and eminence. Giftedness is no guarantee of genius or even of outstanding achievement. Heredity, environment, personal factors, and social factors are analyzed; and a 2-fold approach is suggested.—*S. M. Amatora*.

EDUCATIONAL GUIDANCE

1964. Beals, Lester, & Simmons, Patricia. Counseling needs of gifted high school students. *Personnel guid. J.*, 1962, 40(8), 712-716.—A sample of 310 students identified as gifted by scores of 140 on the Language or Non-Language sections of the CTMM was followed up. The results indicate that counselors could well spend more time in providing information to teachers to pass along to students. A team approach including counselor, teacher, and parent is suggested.—*S. Kavruck*.

1965. Bonnardel, R. Liaisons entre examens psychologiques et résultats scolaires d'un groupe d'étudiants en psychologie appliquée. [Relationship between psychological tests and scholastic achievement of students in applied psychology.] *J. Psychol. norm. pathol.*, 1960, 57(4), 431-443.—The results of some 60 students taking the final examinations of the Institute for Applied Psychology at the University of Paris were compared with scores on several tests which the students had taken during their practicum training. The correlations between the tests and the final exams were similar to those between the several parts of the latter. The author concluded that the tests provided a basis for more rational selection and student counseling.—*M. L. Simmel*.

1966. Buchheimer, Arnold, & Balogh, Sara Carter. (City U. New York) The counseling relationship: A casebook. Chicago, Ill.: Science Research Associates, 1961. xv, 234 p.—Primarily for public school counselors in training and for in conjunction with counseling texts. 4 chapters cover the following areas: (a) questions most commonly asked by the beginning counselor, such as, what is the professional image of the counselor, how to "structure" the interview, and how to obtain information; (b) an analysis of the relationship between counselor and

counselee as it evolves in successive phases of the interview; (c) methods of inferring and constructing a self-concept as exemplified by 3 complete counseling interviews; and (d) a theory to guide the counselor in the development of the self-concept in children. A final chapter presents 4 interviews as exercises at the elementary, junior high, and senior high school levels. (66-item bibliogr.)—*B. Lowenfeld*.

1967. Davis, D. A., Hagan, N., & Strouf, J. Occupational choice of twelve-year-olds. *Personnel guid. J.*, 1962, 40(7), 628-629.—60% of 116 12-year-old 6th graders made tentative occupational choices. Maturity of choice appears to be related to intelligence being female, and inversely to reading retardation. Ginzberg's theory of occupational choice appears substantiated.—*S. Kavruck*.

1968. Hardee, Melvane Draheim. (Florida State U.) Research on college students: The student personnel worker's view. *Educ. Rec.*, 1962, 43(2), 132-138.—4 educational needs are surveyed: (a) construction of well-founded premises for altering traditional student personnel programs, (b) explicite bases for initiating student personnel programs in new colleges, (c) recognition of current trends in the exploration of student characteristics, and (d) utilization of the results of research in current programs. Student personnel workers can ensure continuing quality in their programs by systematic research and self-study.—*W. W. Meissner*.

1969. Hewer, V. H., & Neubeck, G. (U. Minnesota) Occupations of fathers and mothers of entering University of Minnesota freshmen. *Personnel guid. J.*, 1962, 40(7), 622-627.—Fathers of freshmen entering University of Minnesota are employed more frequently in managerial, professional, and sales occupations, than would be expected from the census distribution. Other occupations in order of frequency are: skilled, clerical, farming, semi-skilled, and unskilled. Over ½ of the mothers are not employed outside the home. 22% are employed full time and 16% part time.—*S. Kavruck*.

1970. Hoyt, Kenneth B. (State U. Iowa) Guidance: A constellation of services. *Personnel guid. J.*, 1962, 40(8), 690-697.—The emerging concept of the school guidance counselor as a member of the pupil personnel work team—detached from close relationships with teachers and administrators and trained in psychology rather than in teacher education—is opposed. An alternate proposal is presented. The burden of research proof must rest with the proponents of change.—*S. Kavruck*.

1971. Hutson, P. W. (U. Pittsburgh) Foundations of the curriculum for the education of homeroom teachers. *Personnel guid. J.*, 1962, 40(8), 698-702.—Concepts of distributive and adjustive guidance were examined as they related to the work of the homeroom teacher. It is proposed that teacher-educators check courses against the concepts and take remedial action in creating changes in the curriculum to create understandings essential for homeroom guidance.—*S. Kavruck*.

1972. Katz, M. Educational Testing Service, Princeton, N. J.) Interpreting Kuder Preference Record scores: Ipsative or normative. *Voc. guid. Quart.*, 1962, 10, 96-100.—A critical discussion of the 2 kinds of comparisons (intra- and inter-personal) possible with the Kuder Preference Record—Voca-

tional. For scores above the 75 percentile, there is little empirical evidence to show satisfaction or success. Each raw score tally is made "at the expense" of another scale so that the person with many strong interests might score lower on one scale than a person with only mild interest in the same area. Furthermore, use of the KPR-V tends to assume the exploration of interests has already taken place.—*W. L. Barnette, Jr.*

1973. Lee, Carson. (Indiana U.) A study of the effects of counseling in reducing the number of problems indicated by high school freshmen and seniors. *Dissert. Abstr.*, 1961, 21(11), 3517-3518.—*Abstract.*

1974. McCully, C. Harold. (United States Office Education) The school counselor: Strategy for professionalization. *Personnel guid. J.*, 1962, 40(8), 681-689.—6 developmental tasks are suggested which relate to the professionalization of the school counselor's occupation. The identification of the counselor's specific role in the school, standards for selection and training, accreditation, certification, and the problem of ethics are discussed. As a newly-emerging profession, the dangers of smugness, hypersensitivity, and self-consciousness must be avoided. (46-item bibliogr.)—*S. Kavruck.*

1975. Mehta, Prayag. (National Inst. Education, Delhi) Counselor's task in the Indian context. *MANAS, Delhi*, 1961, 8, 37-40.—A counselor's task is to help in meeting manpower needs. He can do this by helping students develop interest, good study habits, healthy attitudes, proper values, and correct vocational choices. He should coordinate the interests of students, teachers, and parents.—*U. Pareek.*

1976. O'Hara, R. P. (Boston Coll.) Acceptance of vocational interest areas by high school students. *Voc. guid. Quart.*, 1962, 10, 101-105.—A report of accept and reject patterns (above 75 percentile and below 25 percentile) of 1021 boys, Grades 9-12, in a private Catholic school in Boston where the Kuder Preference Record-Vocational was used. Over 50% of these boys score above the 80 percentile for their grade on both Numerical and Verbal subtests of the DAT. Accept and reject patterns for each of the 10 Kuder scales are reported and compared with Shoemaker's Missouri data. It is felt that bright lower class boys will have clear cut acceptance-rejection patterns while the average or low intelligence middle or upper class boy will tend to have flatter profiles.—*W. L. Barnette, Jr.*

1977. Pritchard, David H. (VA Central Office, Washington, D. C.) The occupational exploration process: Some operational implications. *Personnel guid. J.*, 1962, 40(8), 674-680.—"We must seek to obtain, develop, and use occupational tools sensitive to the expanded kinds of variables, occupational as well as personal, identified as significant to vocational development, success, and satisfaction. Occupational exploration should generally give precedence to the broader and longer view of progressive vocational planning over the more limited view of a onetime, final occupational choice." (24-item bibliogr.)—*S. Kavruck.*

1978. Riccio, Anthony C., & Roach, A. I. (Ohio State U.) Influence of social factors on the guidance program. *Cath. educ. Rev.*, 1961, 59, 448-456.—A representative sample drawn from a student body

of 1400 was chosen so as to include members from 28 parishes and 5 different nationality groups. Factors studied include intelligence, father's occupation, mother's occupation, religious affiliation of parents, race and nationality, language spoken in the home, number of children per family, number of people per household, parents' education, type of home dwelling, home provisions of students, and career choices. Analysis of each part is presented, and the significance of the findings for purposes of guidance is given.—*S. M. Amatora.*

1979. Rusalem, Herbert. (Hunter Coll.) Guiding the physically handicapped college student. New York: Columbia Univer., 1962. xi, 151 p. \$2.75.—Facilities, administration policies and procedures, curricular and extracurricular activities, counseling programs, available resources for blind and partially seeing, deaf and hard-of-hearing, orthopedically and otherwise disabled students on the college level are described and practical suggestions are made to facilitate their adjustment and success.—*B. Lowenfeld.*

1980. Schmidt, Lyle D. (Ohio St. U.) Concepts of the role of secondary school counselors. *Personnel guid. J.*, 1962, 40(7), 600-605.—The study attempted to clarify counselor functions and attitudes towards such functions. Counselors and principals were selected from 48 schools in Missouri and asked to react to Q-sort statements on work being done and work which should be done. Both counselors and principals perceived significant and positive relationships between actual and ideal counselor roles. Counselors did not perceive as great a similarity between their actual and ideal roles as did principals. Additional findings are discussed.—*S. Kavruck.*

1981. Searles, Aysel, Jr. (Harpur Coll.) The effectiveness of limited counseling in improving the academic achievement of superior college freshmen. *Personnel guid. J.*, 1962, 40(7), 630-633.— $\frac{1}{2}$ of the superior freshmen expressed a need for counseling. 3-interview counseling does not appear to have any significant effect on 1st-semester academic achievement of freshmen who have been selected from the upper $\frac{1}{2}$ of a sample of New York State high schools.—*S. Kavruck.*

1982. Viteles, Morris S., Brayfield, Arthur H., & Tyler, Leona E. (U. Minnesota) Vocational counseling: A reappraisal in honor of Donald G. Paterson. *Minn. Stud. student personnel Wk.*, 1962, No. 11. 70 p.—A symposium organized by officers of Division 17 of the American Psychological Association to honor Donald G. Paterson on the occasion of his retirement in 1960. The authors sketch the history of vocational guidance—its past, present, and projected future.—*C. H. Miley.*

1983. Waldkoetter, R. O. A comparative guidance study: Group counseling with selected African student-teachers. *Personnel guid. J.*, 1962, 40(7), 638-642.—Group counseling could bring desirable results in terms of academic improvement. 2 experimental groups counseled separately in Akan and English did not differ significantly in academic achievement. The counseled groups differed from a control group at the 5% level.—*S. Kavruck.*

1984. Wilson, John A. R., & Stier, Lealand D. Instability of sub-scores on forms of SRA Primary Mental Ability Tests: Significance for guid-

ance. *Personnel guid. J.*, 1962, 40(8), 708-711.—“The test seems to be subject to so much instability that it should not be used alone for making decisions that are vital in a child's educational growth.”—S. Kavruck.

1985. Winborn, Bob., & Schmidt, Louis G. (North Texas State Coll.) The effectiveness of short-term group counseling upon the academic achievement of potentially superior but underachieving college freshman. *J. educ. Res.*, 1962, 55(4), 169-173.—The work was done on 135 freshmen in the academic year 1958-59 at Indiana University. Results: The students who did not participate in a short-term group counseling program made significantly higher grade point averages than did the participants in the program. This indicates that short-term group counseling can produce a negative effect on the academic achievement of potentially superior freshmen. Another finding was that the majority of freshmen who were designated potentially superior but underachieving students could not be identified as such on the basis of information available to university officials prior to receipt of 1st-semester grades.—F. Goldsmith.

EDUCATIONAL MEASUREMENT

1986. Boag, Audrey K., & Neild, Margaret. (Hornell High School, Hornell, N. Y.) The influence of the time factor on the scores of the Triggs Diagnostic Reading Test as reflected in the performance of secondary school pupils grouped according to ability. *J. educ. Res.*, 1962, 55(4), 181-183.—The above test was administered to the 9th, 10th, 11th, and 12th grades at Hornell High School under timed and untimed conditions. Some high-school students made marked changes in their relative standings when they were given additional time to work on the test. Therefore, speed and power scores cannot be used interchangeably. The average student, (that is, the slow and accurate student) comes out nearer the top when given plenty of time but suffers when there is a time limit. Changes in relative standings occurred with considerably greater frequency through the middle range of scores than at either extreme.—F. Goldsmith.

1987. Bowles, Frank H., & Pearson, Richard. Admission to college: A program for the 1960's. Princeton, N. J.: College Entrance Examination Board, 1962. 130 p. \$50.—This chronicles activities and programs of the College Entrance Examination Board between 1959 and 1961. Identifies projected board activities.—C. H. Miley.

1988. Das, R. C. (Radhanath Training Coll., Cuttack, India) A study of item analysis of an essay type test. *MANAS*, 1960, 7(1), 37-40.—The problem of calculating difficulty and discriminating index of items in essay type tests has been discussed.—U. Pareek.

1989. Davis, Frederick B. (Hunter Coll.) Testing and the use of test results. *Rev. educ. Res.*, 1962, 32(1), 5-14.—The outstanding source of information about tests was *The Fifth Mental Measurement Yearbook*, edited by Buros (1959). This volume covered the years 1952-58 and listed 957 tests. The usefulness of the yearbooks rests primarily on the quality of the original reviews written for them; a high standard has been reached in this edition.

Other studies were probing test selection and use, their administration and scoring, test score reporting and interpretation, assessment of change, and measurement-theory. (63 ref.)—F. Goldsmith.

1990. Educational Records Bureau. 1961 fall testing program in independent schools and supplementary studies. *Educ. Rec. Bull.*, 1962, No. 80, xiii, 69 p.—This bulletin includes a summary of testing results in 536 member independent schools. Tests used were group intelligence, scholastic aptitude, reading, spelling, and reading readiness. Results on specific tests are discussed in separate chapters.—E. M. Bower.

1991. Hewitt, John H., & Rosenberg, Leon A. (Army Medical Service School) The MMPI as a screening device in an academic setting. *Educ. psychol. Measmt.*, 1962, 22(1), 129-137.—“Ninety-five graduates of three courses at the Army Medical Service School were administered, upon admittance, the Shortened Version of the Group Form of the MMPI in an attempt to determine the predictive value of this test. Profiles obtained from this group were compared with those of 16 subjects who were not admitted to a course, and with those of 11 subjects who failed a course. Results indicated that the profiles obtained by all three groups were essentially the same, with those of the group admitted being slightly more abnormal. . . . the study found no single measure or combination of measures by the MMPI which would provide interviewers with clues regarding a given individual's chances for success in a course.”—W. Coleman.

1992. Jamuar, K. K. (Patna U.) Secondary school examination record as a criterion for admission at the university level. *Psychol. Stud., Mysore*, 1961, 6(1), 47-49.—Correlation between high school and college marks is too low to warrant any prediction of results at the university on the basis of school marks.—U. Pareek.

1993. Klausmeier, Herbert J., Harris, Chester W., & Ethnathios, Zackaria. (U. Wisconsin) Relationships between divergent thinking abilities and teacher ratings of high school students. *J. educ. Psychol.*, 1962, 53, 72-75.—The stability of factors of divergent thinking (DT) is Ss of school age and the relationship between factor scores and performances of the Ss remain to be defined. 78 boys and 113 girls with IQ's of 115 and higher were administered DT tests as 10th and 11th graders. 3 factors were found common to both sexes and relatively stable over a 12-month interval. 15 of 28 r's between factor scores and teacher ratings of the Ss' DT performances as 11th graders in English, mathematics, science, and social studies were low, positive, and significant at or beyond the .10 level. The nature of the DT factors and the expression thereof in classroom activities varied markedly according to sex and subject field.—*Journal abstract*.

1994. Kline, William Edward. (Princeton U.) A synthesis of two factor analyses of intermediate algebra. *Dissert. Abstr.*, 1961, 21(11), 3516-3517.—*Abstract*.

1995. Little, E. B. (U. Illinois) Overcorrection for guessing in multiple-choice test scoring. *J. educ. Res.*, 1962, 55(6), 6, 245-252.—Correction formulae are frequently used to compensate for guesswork on multiple-choice tests on the assumption that

the reduced score gives a more accurate picture of the student's actual ability. A test pattern analysis was undertaken on a multiple-choice test which was administered 3 different times to the same group of students. Some wrong answers were not marked in accordance with the laws of chance but instead were based on positive misinformation. The author recommended, therefore, that use of the correction formula be abandoned.—*F. Goldsmith.*

1996. Marks, Merle B. (U. Southern California) **Better directions—better response.** *Audiovis. Commun. Rev.*, 1962, 10(3), 169-175.—A comparison of the effectiveness of formats for written test directions. The same directions presented in 22 different formats were used in testing 1650 students in a single junior high school. Hand printed directions with key words in bold lettering and directions in primary size type-writer letters were significantly superior to the control format in eliciting desired responses. A 2nd experiment to test promising format combinations gave results no better than single treatments. 8 recommendations for format presentation are given.—*R. E. Schuitz.*

1997. Morin, J. **Notation psychométrique et professionnelle de jeunes ingénieurs.** [Psychometric and professional characteristics of young engineers.] *Travail hum.*, 1961, 24, 201-211.—Test scores of a sample of 54 engineers were compared after 2-5 years of work experience. There was a correlation of +.45 with total test score and the Standard Bonnardel Examination, which contains 6 parts relating to fundamental abilities. Each subtest also correlated well with total criterion.—*R. W. Husband.*

1998. Wall, H. W., Marks, E., Ford, D. H., & Zeigler, M. L. **Estimates of the concurrent validity of the WAIS and normative distributions for college freshmen.** *Personnel guid. J.*, 1962, 40(8), 717-722.—The study attempted an evaluation of the validity of the WAIS in relation to scholastic aptitude and achievement among freshmen at Pennsylvania State University. Relationships were obtained but were smaller than expected. Normative data for freshmen in both science and nonscience curricula were obtained.—*S. Kavruck.*

Aptitudes

1999. ELnasr, Abe Elmonim Abu. (Columbia U.) **A factorial analysis of personal-social problem-solving abilities of high school students.** *Disser. Abstr.*, 1961, 22(1), 345-346.—*Abstract.*

2000. Fischer, Hardi, & Butsch, Charles. (Eidgenössische Technische Hochschule, Zürich, Switzerland) **Musikalische Begabung und Intelligenz.** [Musical aptitude and intelligence.] *Z. exp. angew. Psychol.*, 1961, 8(4), 508-518.—A matrix was prepared correlating the results of 6 Seashore musical aptitude tests and 6 intelligence tests. 101 pupils between the ages of 10 and 15 served as Ss. A factor analysis revealed a close relationship between musical aptitude and general intelligence.—*W. J. Koppitz.*

▲ 2001. Flanagan, John C., Dailey, John T., Shaycoft, Marion F., Gorham, William A., Orr, David B., & Goldberg, Isadore. **The talents of American youth: I. Design for a study of American youth.** Boston, Mass.: Houghton Mifflin, 1962. 240 p. \$4.00 (cloth), \$1.95 (paper).—The 1st of a series of reports concerning Project TALENT. In it is de-

scribed the design of a study of the talents of American youth; the method of selecting students and schools; the construction of tests, inventories, and questionnaires and their administration; and the proposed methods of analyzing the data. Chapter 14 presents a brief description of the future steps to be taken in this research. The next book in this series will report the results of analyzing the school and guidance information which has been collected. The 3rd book will contain the results of the analysis of student data, whereas the 4th book will cover the 1st 1-year follow-up, the process of checking hypotheses, and the revision of them. An appendix of 5 parts is included.—*J. S. Ahmann.*

2002. Milholland, John E., & Fricke, Benno G. (U. Michigan) **Development and application of tests of special aptitude.** *Rev. educ. Res.*, 1962, 32(1), 25-39.—The distinction between aptitude and achievement tests probably has broken down because achievement tests have been found to provide generally better predictions of future achievement than have aptitude tests. A variety of studies have used multiscore tests, but usually no more than one criteria was involved—over-all academic success. Research has shown conclusively that for most such criterion-prediction problems, it rarely is necessary to employ more than a single general-aptitude measure. Useful studies of the selection of students for medical school continue to be published. (52 ref.)—*F. Goldsmith.*

2003. Pimsleur, Paul; Stockwell, Robert P., & Comrey, Andrew L. (Ohio State U.) **Foreign language learning ability.** *J. educ. Psychol.*, 1962, 53, 15-26.—This report on 2 studies of factors involved in learning French is based on 23 tests administered to 208 students in college French, and on 22 tests administered to 202 additional students a year later. The factors extracted and rotated in each study included: Verbal, Reasoning, Speed of Articulation, Pitch Discrimination, Timbre Discrimination, Interest, and Biographic. Multiple correlation test selection analyses resulted in (a) $R = .65$, using 6 tests to predict Cooperative French Test scores; and (b) $R = .41$, using 5 tests to predict aural comprehension; and (c) $R = .41$, using 5 tests to predict speaking proficiency. Verbal IQ and Interest (motivation) appear to be the most important factors in college foreign language learning; Reasoning, Word Fluency, and Pitch Discrimination also contribute.—*Journal abstract.*

Achievement

2004. Bertrand, Alvin L. **School attendance and attainment: Function and dysfunction of school and family social systems.** *Soc. Forces*, 1962, 40(3), 228-233.—Dropping out of high school is contradictory to national educational goals but can be explained in terms of family values or school factors which tend to operate against those goals. Interview data were obtained from 369 students in 8 relatively rural Louisiana high schools, 68 drop-outs, parents of youth in both these groups, principals, and teachers.—*A. R. Howard.*

2005. Carp, Paul W., Jr. (U. Tennessee) **The effect of class attendance and "time structured" content on achievement in general psychology.** *J. educ. Psychol.*, 1962, 53, 76-80.—The effects of attending class and of structuring an introductory psychology course with respect to time and content were

studied, using 335 undergraduates in a 2×3 factorial design. Time structuring was accomplished through schedules of testing. Using end-of-course achievement test scores as the criterion, F ratios for neither the class attendance variable, the time structure variable, nor the treatment interaction were significant at the .10 level. It was concluded that students performed as well through independent study as in the conventional class situation, and time structured content was ineffective as a determiner of student achievement. Student dropouts and the number of students seeking individual assistance were unrelated to the experimental treatments.—*Journal abstract.*

2006. Cook, David R., & Martinson, William D. **The relationship of certain course work in high school to achievement in college.** *Personnel guid. J.*, 1962, 40(8), 703-707.—The results do not support the popular notion that a particular set of courses is especially crucial for the college "success" of a student. Colleges need to place more stress on the quality of work done and less on the pattern of courses taken.—*S. Kavruck.*

2007. Curry, R. L. (Baylor U.) **The effect of socio-economic status on the scholastic achievement of sixth-grade children. Part I.** *Brit. J. educ. Psychol.*, 1962, 32(1), 46-49.—360 6-grade pupils randomly selected from 2633 students in Southwestern United States. CTMM and CAT and socio-economic data were used. "As the intellectual ability decreases from high to low, the effect of social and economic conditions on scholastic achievement increases greatly." The effect seems to be primarily upon language, achievement in arithmetic seems relatively free of the influence.—*B. T. Jensen.*

2008. Fink, Martin B. (Mt. Diablo, Calif., Unified School District) **Self concept as it relates to academic underachievement.** *Calif. J. educ. Res.*, 1962, 13(2), 57-62.—Matched on the basis of CTMM IQ and sex, 20 pairs of boys and 24 pairs of girls produced a miscellany of psychological test data which were analyzed independently by 3 psychologists as to evidence of adequate and inadequate self-concept. The hypothesis that adequate self-concept is related to high academic achievement and that inadequate self-concept is related to low (under) achievement was supported at the .01 level for boys and at the .1 level for girls.—*T. E. Newland.*

2009. Gill, Lois J., & Spilka, Bernard. (Denver Public Schools) **Some nonintellectual correlates of academic achievement among Mexican-American secondary school students.** *J. educ. Psychol.*, 1962, 53(3), 144-149.—The purpose of this study was to determine personal and maternal correlates of academic achievement among Mexican-American secondary school students. 4 groups (15 each) of achieving and low achieving boys and girls were identified and equated in age, IQ grade level, and courses taken. Employing standard objective measures, it was shown that achievers manifested reliably less hostility and more social maturity, intellectual efficiency, and conformity to rules. Achieving girls and underachieving boys appear to come from strong mother-dominated homes. Since these findings seem meaningful with respect to this subculture, it is suggested that such study of achievement in minority groups may better clarify the nature of relationships among hypothesized variables.—*Journal abstract.*

2010. Holland, John L., & Astin, Alexander W. (National Merit Scholarship Corp.) **The prediction of the academic, artistic, scientific, and social achievement of undergraduates of superior scholastic aptitude.** *J. educ. Psychol.*, 1962, 53(3), 132-143.—Undergraduate achievement in academic, artistic, scientific, and social areas was predicted from extensive assessments in the high school senior year for 4 independent samples of high aptitude students (N ranged from 354 to 953) over intervals from 1 to 4 years. The criteria of college achievement included grades, checklists of unusual accomplishments in science and art (e.g., publications, winning public recognition through awards and prizes), and election to student offices. Predictors included: scholastic aptitude, personality, originality, interest, parental attitude variables, and background information. Correlational analyses indicated that achievers in each of the 4 areas resemble our stereotypes of the scientist, artist, leader, and academic achiever.—*Journal abstract.*

2011. Kazmier, L. J. (U. Notre Dame) **Criterion simulation and the prediction of achievement.** *Psychol. Rep.*, 1962, 10(1), 64.—A simulated criterion (work sample) was included in a test battery to predict performance in a college course.—*B. J. House.*

2012. Merwin, Jack C., & Gardner, Eric F. (U. Minnesota) **Development and application of tests of educational achievement.** *Rev. educ. Res.*, 1962, 32, 40-50.—Of all the areas of measurement influenced by the National Defense Educational Act, achievement testing and aptitude testing have probably felt the greatest impact. Studies of testing techniques vary widely. Some aim primarily at finding more efficient ways to use tests, while others center on the meaningfulness of the results obtained. There have been occasional bold attempts to redefine the demarcation lines between aptitude and achievement tests. During the period under review, noticeable progress has been made in understanding the use of achievement tests as predictors and the relationship between anxiety and achievement-test performance. (67 ref.)—*F. Goldsmith.*

2013. Phatak, Pramila. **Exploratory study of creativity and intelligence and scholastic achievement.** *Psychol. Stud., Mysore*, 1962, 7(1), 1-9.—32 students 9-11 years of age were administered nonverbal creativity test devised at the University of Minnesota (circle test and incomplete figure test) and Draw-a-Man Test. Results show that "creativity as measured by the tests is moderately related to intelligence." It shows no significant relationship with examination marks or teacher ratings. No significant sex or age differences were found.—*U. Pareek.*

2014. Red, S. B., McCary, J. L., & Johnson, Bette. (U. Houston) **A study of the relationship between aspirational levels and academic achievement.** *J. educ. Res.*, 1962, 55(4), 159-163.—101 freshmen and sophomore university students were given an adaptation of the Cassel Group Level of Aspiration Test and the Otis Quick-Scoring Mental Ability Tests—Gamma and Revised Beta. All correlation coefficients and comparisons between aspiration and academic achievement measures showed little relationship.—*F. Goldsmith.*

2015. Street, Paul; Powell, James H., & Hamblen, John W. (U. Kentucky) **Achievement of**

students and size of school. *J. educ. Res.*, 1962, 55(6), 261-266.—This study examined the possible relationship between performance of students and the size of the schools (in terms of enrollment) which they attended in a mining and rural area of eastern Kentucky. The Stanford Achievement Tests were administered to 2700 students in 7th and 8th grades. The elementary schools were classified by size into 3 groups: Group I—300 or more; Group II—more than 100, less than 300; Group III—less than 100. While the study was limited to schools of less than 900 enrollment, the writers believe that their data may apply to many debates about school size. The students in larger schools tended to outperform students in smaller schools.—*F. Goldsmith.*

2016. Todd, Frederick, J., Terrell, Glenn, & Frank, Curtiss E. (U. Colorado) Differences between normal and underachievers of superior ability. *J. appl. Psychol.*, 1962, 46, 183-190.—An attempt was made to obtain descriptive information about bright normal achievers and underachievers with respect to 4 theory-related variables. 4 hypotheses were stated predicting that, as compared with normal achievers, underachievers would manifest less need for academic achievement, would be less likely to have decided on specific vocational goals, would be more likely to perceive a relationship between coursework and attainment of goals, and would have lower expectancy for success in academic pursuits. The results obtained through the administration of 2 personality inventories and a specially devised questionnaire provided some support for all 4 hypotheses for male Ss. For female Ss, however, support was found for only 2 of the 4 hypotheses. The results were discussed with reference to sex differences.—*Journal abstract.*

2017. Van Biljon, I. J. (U. Stellenbosch, South Africa) Akademiese vordering van studente aan 'n Suid-Afrikaanse universiteit. [A comparison of academic performance among students at a South African university.] *J. soc. Res., Pretoria*, 1961, 12 (1), 21-26.—"The academic success and failure of first, second, and third year students at a South African university were studied. The failure of third year students appears to be exceptionally high. Women students and students who obtained first class passes in matric do well in their studies." (Dutch & English summaries)—*N. De Palma.*

EDUCATIONAL PERSONNEL

2018. Almy, Millie. (Teachers Coll. Columbia U.) Intellectual mastery and mental health. *Teach. Coll. Rec.*, 1962, 63(6), 468-478.—The literature is reviewed for suggestions on the role and requirements of the teacher in promoting environmental mastery.—*H. K. Moore.*

2019. Cratty, Bryant J. (U. California, Los Angeles) The assessment of teacher sensitivity. *Calif. J. educ. Res.*, 1962, 13, 72-77.—"Teacher sensitivity" is present when both student and teacher judgments are in accord as to the importance of various factors that facilitate learning. A supporting illustration is presented.—*T. E. Newland.*

2020. Ferguson, John Bodley. (Cornell U.) Job satisfaction and job performance within a university faculty. *Dissert. Abstr.*, 1961, 21(12), 3843.—*Abstract.*

2021. Fishburn, C. E. (San Diego State Coll.) Teacher role perception in the secondary school. *J. teacher Educ.*, 1962, 13, 55-59.—Roles perceived by teachers and administrators as most important in teachers were in order of importance: mediator of the culture, member of the school community, director of learning, guidance and counseling person, liaison between school and community, and member of a profession. Differences between teachers and administrators were noted.—*E. M. Bower.*

2022. Herbert, Eléonore L. (U. Manchester) The use of group techniques in the training of teachers. *Hum. Relat.*, 1961, 14(3), 251-253.—Young teachers often conceptualize discipline in the classroom in terms of controlling an opposed and hostile class. In terms of group dynamics, however, the students compose a group and the teacher fills the special role of leader within the class group. The dynamics of this relationship are analyzed in terms of Bion's basic assumptions of dependence and flight. Several examples from the author's teaching experience are discussed.—*W. W. Meissner.*

2023. Hernández, Miguelina. (Dept. Education, Puerto Rico) La salud mental del maestro. [Mental health of teachers.] *Educacion*, 1961, 2, 123-135.—The attitudes and causes of satisfactions and frustrations of Puerto Rican teachers were investigated. 60 female and 13 male teachers, ages 20-59, mean age 30 years, were asked to write, anonymously, a short essay on 1 of the following topics: "the greatest satisfactions in my life as a teacher" or "the greatest frustrations in my life as a teacher." The results revealed no sex differences with respect to satisfactions, but male frustrations were much greater than female ones. Urban teachers seem more satisfied than rural ones. The greatest satisfaction (81%) of teachers is to observe academic progress in their children, and the greatest frustrations (38%) are caused by superior authorities. Teachers' salaries (which are considerably lower than American ones) did not emerge as a cause of frustration or dissatisfaction.—*R. E. Morán.*

2024. Oliver, R. A. C., & Butcher, H. J. (U. Manchester) Teachers' attitudes to education. The structure of educational attitudes. *Brit. J. soc. clin. Psychol.*, 1962, 1(1), 56-69.—"Three attitude scales were constructed on the hypothesis that attitudes to education might be partially represented by the dimensions of naturalism, radicalism and tender-mindedness. The development of these scales and their administration to a representative sample of 300 teachers are described, and evidence of their reliability, validity and reproducibility is given. A factor analysis of items from the three scales was carried out. The extent to which this analysis supported the hypothesis of three independent dimensions is discussed."—*C. M. Franks.*

2025. Schneck-Danziger. Ma tsarikh hamore ladaat, min hapsikhologia. [What must a teacher know about psychology?] *Urim*, 1961-62, 19, 144-147.—"In each situation of his professional activity the teacher deals with applied psychology. . . Nevertheless he is not a psychologist." He must not base his work on intuition, but he has to acquire some basic knowledge on the following topics: developmental psychology; the child's school maturity; his interests, needs, and conflicts; psychology of learning and its disturbances; sociometry; teacher's psychology; and

his relations with parents and children. For these purposes a textbook of educational psychology is needed as well as observation of children.—*H. Ormian.*

INDUSTRIAL & MILITARY PSYCHOLOGY

2026. Barabantsschikov, A. V., D'yachenko, M. I., Zaporozhets, A. V., Fedanko, N. F. Vazhnyĭ shag na puti razitiya psikhologii voĭnskoĭ deyatel'nosti. [An important step toward development of a psychology of military activity.] *Vop. Psikhol.*, 1961, 7(6), 179-182.—A review of a book on military psychology by G. D. Lukova entitled *Psikhologiya (Ocherki po voprosam obucheniya i vospitaniya sobetskikh voĭnov)* [Psychology (Sketches on the problems of training and education of Soviet fighting men)], Moscow, Military Publishing House, 1960.—*H. Pick.*

2027. Corsini, Raymond J., Shaw, Malcom, & Blake, R. R. Role playing in business and industry. New York: Free Press Glencoe, 1961. 246 p. \$6.00.

2028. Durand, Claude. Conséquences de la modernisation sur l'évolution des relations de travail. [The effect of modernization on work relationships.] *J. Psychol. norm. pathol.*, 1960, 57(2), 177-192.—Changes in the worker's relationship to his work, his co-workers, and management are traced through several stages of industrial development in the steel mill. At the earliest stage a given product results from the cooperative work of a small hierarchically organized group whose foreman is an expert. The assembly line represents an intermediate stage, in which the range of operations for any worker is limited and there is a premium on speed and accuracy. Finally, with the advent of automation, the worker becomes a push-button technician. Changes in the worker's role are accompanied by changes in his problems, value, and aspirations.—*M. L. Simmel.*

2029. Feinberg, M. R., & Lefkowitz, J. (City College, New York) Image of industrial psychology among corporate executives. *Amer. Psychologist*, 1962, 17, 109-111.—89 executives attending a 1960 executive seminar of the American Management Association completed a 13 item questionnaire. "Almost twice as many executives stated that they would hire an industrial psychologist as compared with those who would decide against such a decision. . . . There are many executives still unconvinced that industrial psychology has any real worth at its present stage of development. . . . The areas of competence in which the industrial psychologist was judged to be most useful were morale, selection and training."—*S. J. Lachman.*

2030. Fleishman, Edwin A. (Ed.) (Yale U.) Studies in personnel and industrial psychology. Homewood, Ill.: Dorsey, 1961. xi, 633 p. \$9.35.—A basic or supplementary text. The introductory material points up the relevance of each article to current issues in the field as well as to the theme of each of the 9 major sections: personnel selection; performance appraisal; training employees and managers; motivation, attitudes, and morale; leadership and supervision; communication and organizational behavior; fatigue, monotony, and working conditions, accidents and safety; and, engineering psychology.

Of the 66 articles, 55 were originally published since 1950.—*C. F. X. Youngberg.*

2031. Siegel, Laurence. (Miami U.) Industrial psychology. Homewood, Ill.: Irwin, 1962. xvi, 414 p. \$6.95.—An elementary text in industrial psychology providing "an overview of industrial psychology, broadly conceived. . . . A background in Introductory Psychology . . . [is] probably helpful . . . but is not indispensable." Areas covered are: selecting, placing, and training employees; worker efficiency; organizational management; consumer behavior.—*E. Q. Miller.*

2032. Thompson, John Richard. (U. Colorado) The effects of industrial therapy upon personality and behavior. *Dissert. Abstr.*, 1961, 21(10), 3170.—*Abstract.*

VOCATIONAL GUIDANCE & APPTITUDES

2033. McDaniel, Myra L. (Army Medical Center, Washington, D. C.) Words are responsibilities. *Amer. J. occup. Ther.*, 1962, 16(2), 57-60.—Some fundamental aspects of communication as they effect the occupational therapist in meeting professional responsibilities are discussed.—*M. A. Seidenfeld.*

2034. Peck, Jean Blackman. (U. Nebraska Medical Coll.) Development and management of transference: Occupational therapists use of self. *Amer. J. occup. Ther.*, 1962, 16(2), 78-83.—The significance of transference as a factor in the treatment relationships of the occupational therapist.—*M. A. Seidenfeld.*

2035. Pickett, Barbara Jean. (Colorado State U.) Factors influencing choice of occupational therapy as a career: Implications for recruitment of students. *Amer. J. occup. Ther.*, 1962, 16(2), 84-88.—The result of a study of 306 students enrolled in 26 occupational therapy curricula are reported. It was found that: (a) the age range for selection of occupational therapy as a career was 16-46 years with the median at 24 years; (b) the majority appeared to have had some contact with occupational therapy either directly or indirectly; and (c) the majority of students first learned about occupational therapy through some form of personal contact, through an occupational therapist, a vocational counselor, mass media, or recruitment literature, in that order, with the first having been responsible for virtually 78% of the initial interest. The principle motivating factors for entering the profession are the opportunities to work directly with people and secondly to help the disabled.—*M. A. Seidenfeld.*

2036. Rusalem, Herbert, & Dill, Seymour. (Industrial Home Blind, Brooklyn, N. Y.) Vocational rehabilitation of the older disabled person. *J. Rehabil.*, 1961, 27(6), 19-20, 35, 38.—A description of the Federation Employment and Guidance Service program, illustrated by 2 case studies. The authors deal with the feasibility of offering vocational rehabilitation to the older disabled client. They point out the important values to be gained from workshop evaluation, counseling, training, and placement offered through such a program. They emphasize that more of such services should be offered.—*M. A. Seidenfeld.*

2037. Stephenson, Richard R. (U. Iowa) Chance versus nonchance scores on the SVIB. *J. appl. Psychol.*, 1961, 45(6), 415-419.—In the interpretation of scores obtained on the Strong Voca-

tional Interest Blank, should those falling in the shaded or chance area be disregarded? Ss were 242 low ability college students and 109 noncollege Ss. These data were obtained from studies by King (see 31: 1540) and Powers (see 31: 6225). Scores falling in the shaded areas are no more due to chance than those falling anywhere else.—*J. W. Russell.*

2038. Super, D. E., & Crites, J. O. *Appraising vocational fitness.* New York: Harper, 1962. xv, 688 p. \$8.75.—This is a revision of the book with the same title which appeared in 1949. The 22 chapters discuss testing, appraisal, prediction, administration, scoring, statistics, aptitudes, talents, and the preparation of test reports. 3 appendices present illustrative cases in appraisal and follow up as well as a listing of test publishers and scoring services. There are author, test, subject, and occupational indexes.—*J. L. Walker.*

OCCUPATIONAL & CAREER INFORMATION

2039. Bornemann, Ernst, & Böttcher, Hans. *Der Jugendliche im Betrieb.* [Youth between 15 and 24 in industry.] *Psychol. Rdsch.*, 1962, 13(2), 77-103.—An outline of the situation in German-speaking countries is given, followed by an investigation of industry's role as an educational institution. The possible dangers for physical and psychological development of employing youth in industry are pointed out. (85 ref.)—*W. J. Koppitz.*

2040. Harding, F. D., & Naurath, D. A. (Lackland AFB, Tex.) *Effects of job experience and organization on the rating of tasks.* *Engng. industr. Psychol.*, 1960, 2, 63-68.—With the expanding use of automated equipment, efficient methods of collecting information about rapidly changing jobs are needed. A card-sort method is explained, including the need for further improvements. Caution should be exercised in grouping pieces of job information from different departments or from widely different types of workers.—*C. F. X. Youngberg.*

2041. Hilton, Thomas L., & Dill, William R. (Carnegie Inst. Technology) *Salary growth as a criterion of career progress.* *J. appl. Psychol.*, 1962, 46, 153-158.—As a possible improvement on absolute salary as a criterion, the authors computed the annual percentage growth of the salaries of 143 engineering graduates employed in industry. Although 1st-year salaries increased markedly from 1950 to 1955, and 1957 salaries varied with years of the service, the growth rates were homogeneous. The rates for different professional groups were different. 1st-year salary and salary growth were unrelated. Growth was related to academic grades, but absolute salary unexpectedly had a stronger relationship. Salary growth has some useful properties, but it is not uniformly applicable.—*Journal abstract.*

2042. Simpson, Richard L., & Simpson, Ida H. *Social origins, occupational advice, occupational values, and work careers.* *Soc. Forces*, 1962, 40(3), 264-271.—380 interviews indicate that "workers who received advice from numerous sources, whose main advisers were outside their families, and who had positive orientations to work were relatively likely to obtain high-status first jobs. These relationships were to some extent independent of each other and of workers' class backgrounds, and for the most part they also applied to the workers' choice of their most

recent jobs. However, workers' advice-seeking and values when they chose their first jobs were not related to their later job histories. The findings are examined in the light of alternative theories of occupational choice."—*A. R. Howard.*

SELECTION, PLACEMENT, APPRAISAL

2043. Biäsch, Hans. *Zum Problem der Auslese und Eignungsbestimmung von Führungskräften.* [The problem of selection and psychodiagnostics of management personnel.] *Psychol. Rdsch.*, 1962, 13, 104-116.—The problem of selection is seen from 3 aspects: (a) the psychological problem of selection and advancement of suitable persons, (b) the sociological problem of evaluating the management situation, and (c) the initiation of those processes which lead to an efficient interaction between manager and situation.—*W. J. Koppitz.*

2044. Bouisset, S., & Monod, H. *Comparaison d'un test morphologique (Pignet) et de deux tests physiologiques d'aptitude fonctionnelle (Ruffier et Step-Test).* [Comparison of a morphological test (Pignet) with two tests of functional physiological aptitude. (Ruffier and Step-Test).] *Travail hum.*, 1961, 24(3-4), 213-224.—An experimental study on 100 firefighters compared Pignet's morphological index to 2 tests of cardiovascular effort aptitude. Correlations were weak, not only with these measures, but with age, weight, and height.—*R. W. Husband.*

2045. Crockett, Harry Jennings, Jr. (U. Michigan) *Achievement motivation and occupational mobility in the United States.* *Dissert. Abstr.*, 1961, 21(12), 3871-3872.—*Abstract.*

2046. Crookes, T. G., & French, J. G. (St. John's Hosp., Aylesbury) *Intelligence and wastage of student mental nurses.* *Occup. Psychol.*, 1961, 35(3), 149-154.—All student nurses recruited since 1952 (102 girls, 34 men; many from overseas) were given the Raven's Progressive Matrices test. Scores correlated "quite highly with examination success, but not at all with eventual completion of the course." The findings were discussed in relation to general problems of occupational selection and nursing recruitment.—*M. York.*

2047. Ehlers, T. (Lübecker Str. 2a, Bremen, Germany) *Über den Vorhersagewert einiger psychologischer Untersuchungsverfahren.* [The predictive value of certain apprentice characteristics.] *Psychol. u. Praxis*, 1961, 5, 157-163.—51 metalworker apprentices, selected from 213 on the basis of high performance ratings, were tested. 4 types of tests (mechanical-technical, space relations, wire-bending, and creativeness), an average of all the tests, and a work performance rating served as the predictive variables. Instructor ratings after 1 and 3 months, an average of 4 school examinations over a period of 1½ years, and an over-all school grade served as criterion variables. It was found that both test scores and work performance ratings were significantly related to school performance criteria.—*H. Roemmich.*

2048. Jaiswal, M. P., Leonard, L. L., Marks, A. R., & Zappin, T. G. (Ohio U.) *Observations on the use of psychological tests in the U. S. A.* *Indian J. Psychol.*, 1961, 36(3), 105-117.—Selected tests and inventories commonly used for selection and appraisal in business and industry in the United

States are discussed, with notes on their validity, reliability, utility, and interpretation.—J. T. Cowles.

2049. Kalikinskii, YU. A. (Akad. Pedagogicheskikh Nauk RSFSR, Moscow) *Nekotorye osobennosti sylkha spetsialistov po tekhnicheskomu oslushivaniyu dvigatelei vnutrennego sgoraniya*. [Some characteristics of hearing of specialists in technical inspection of internal combustion engines.] *Vop. Psikhol.*, 1961, No. 7, 121-134.—Sensitivity to noise patterns and changes is characteristic of some technical workers and serves the very useful function of enabling them to hear when machinery is operating properly and when something is amiss. A battery of 3 auditory tests was given to a group of specialists with this ability, a group of specialists without this ability, and a group of nonspecialists. The 1st specialists had very nearly the same thresholds of loudness sensitivity in both the quiet and noise backgrounds. The other groups displayed a great difference in thresholds. The 1st group of specialists also had high sensitivity to a narrow zone of sound—200-1600 cps with a loudness of 100-110 db. Sounds of engines were recorded at various speeds and with various malfunctions (e.g., knocking of a piston ring or connecting rod.) The 3 groups were asked to identify these sounds with and without extraneous background noise. The 1st group of specialists had a large percentage of the answers correct. The 2nd group of specialists did only moderately well and were bothered to a greater extent by background noise. The nonspecialists were completely unable to handle the task. It was found that naive Ss could become specialists without direct training in the complex task, i.e., by training in the discrimination of the various qualities (pulsation, timbre, and loudness) of noise that differentiate the several noise patterns. (47 item bibliogr.)—H. Pick.

2050. Magee, Richard H. (Helene Curtis Industries, Inc., Chicago) *The employment interview: Techniques of questioning*. *Personnel J.*, 1962, 41 (5), 241-245.—Some common errors in questioning during employment interviews are discussed. Examples are given of good questions for obtaining such information as how the applicant feels about people and about his present job. Constructive use of silence is explained.—M. B. Mitchell.

2051. Marsh, S. H. *Validating the selection of deputy sheriffs*. *Publ. Personnel Rev.*, 1962, 23 (1), 41-44.—The predictor of success in entry-level law enforcement positions included elements of "personality" and "interest" tests, automobile accident rate, height, occupational background, and achievement in "Recruit School." The Ss were 619 men appointed deputy sheriffs between 1947-50 in the Los Angeles area. Criterion ratings were found to correlate significantly with experience of ratee and rater's observation time. Previous occupations of a promotional nature (viz., public relations, insurance, real estate sales, etc.) were related to success to a greater extent than listings such as retail clerk and police and fireman experience.—M. York.

2052. Merenda, P. F., Musiker, H. R., & Clarke, W. V. (W. V. Clarke Associates, East Providence, R. I.) *Relation of self-concept to success in sales management*. *Engng. industr. Psychol.*, 1960, 2, 69-77.—Results of the Activity Vector Analysis were examined for 29 "more" successful and 29 "less" suc-

cessful sales managers. The former men scored higher on the degree of congruence between their social selves and basic selves than did the less successful group. They also had higher relative scores on a sociability factor. It is believed that successful job behavior requires agreement within the individual as to perceived job role and basic self-concept.—C. F. X. Youngberg.

2053. Merenda, Peter F., Clarke, Walter V., & Hall, Charles E. (Walter V. Clarke Associates) *Cross-validity of procedures for selecting life insurance salesmen*. *J. appl. Psychol.*, 45 (6), 376-380.—(See 34: 8503) Ss were 535 financed life insurance agents. A self-concept personality assessment inventory (the Activity Vector Analysis [AVA]), 5 personal-social history items; and age were the predictors used in the study. The criteria were standards for successful and unsuccessful salesmen. "Combining AVA and personal history data enhances the predictive efficiency of these measures in determining success or failure of life insurance agents over a sustained period of time."—J. W. Russell.

2054. Mullins, Cecil J., & Force, Ronald C. (Lackland AFB, Tex.) *Rater accuracy as a generalized ability*. *J. appl. Psychol.*, 1962, 46, 191-193.—To see if those people who can most accurately estimate their peers' performance on an objective criterion are also those who can most accurately rate their peers on carefulness, 236 basic airmen estimated the scores their peers made on a vocabulary test. Then they rated their peers on carefulness, and all Ss took 5 carefulness tests. All 5 of the carefulness tests correlated higher with the ratings assigned by airmen who most accurately estimated their peers' vocabulary scores than they did with ratings assigned by the airmen who least accurately estimated their peers' vocabulary scores. These results were interpreted as a demonstration of the generalizability of rating accuracy.—*Journal abstract*.

2055. Mullins, Cecil J., & Groves, Kenneth J. (6570th Personnel Research Lab.) *A preliminary attempt to identify officers with scientific and engineering potential*. *USAF Personnel Res. Lab. tech. data Rep.*, 1962, No. 62-1, 7 p.—As part of an overall attempt to identify young officers who are good prospects for research and development work, this study investigates predictors of ratings and grades achieved by student officers attending the Squadron Officer School. Predictors included American Council on Education examinations, Educational Test Service tests, 11 variables descriptive of educational background, and 9 scores derived from 3 experimental questionnaires. Criteria were a composite school grade and instructor ratings of officership, originality and creativeness, and logical reasoning. Multiple regression analyses revealed that prediction of all criteria except the logical reasoning rating were slightly improved by adding the self-report variables to the academic predictors. Relative merits of the various predictors are considered, both as predictors of the school criteria and as possible predictors of R & D proficiency criteria.—*USAF PRL*.

2056. Nix, Harold L., & Bates, Frederick L. (Georgia State Coll.) *Occupational role stresses: A structural approach*. *Rural Sociol.*, 1962, 27 (1), 7-17.—Data from a review of the literature and from 27 4-hour interviews with vocational agriculture

teachers led to a description of occupational role stresses and the reasons for the results of, and the adjustment to their occurrence.—H. K. Moore.

2057. Perloe, S. I. (Haverford Coll.) **Status and the judgment of occupational prestige.** *J. abnorm. soc. Psychol.*, 1961, 63(3), 671-674.—"A test was made of the hypothesis that high status subjects would displace their judgments of moderate and low prestige occupations towards the low end of the prestige dimension. A comparison of the judgments of Yale students and previously published judgments of a nationwide sample supported the hypothesis. The results were attributed to the high status (Yale) subjects using their own actual or expected positions on the occupational prestige dimensions as internal anchors. Two explanations [Helson (1948), Volkman (1951)] of the anchor effect were discussed."—G. Frank.

2058. Souerwine, A. H. (Travelers Insurance Co.) **More value from personnel testing.** *Harv. bus. Rev.*, 1961, 39(2), 123-130.—Although it is important to keep a close watch on the development and maintenance of the mechanical aspects of a testing program, each company should be aware of the possible effects of interdepartmental relations and of its attitudes about people, about objective measures, and about change.—C. F. X. Youngberg.

2059. Sydiaha, Daniel. (U. Saskatchewan) **Bales' interaction process analysis of personnel selection interviews.** *J. appl. Psychol.*, 1961, 45(6), 393-401.—What are the sources of interview unreliability? This is the 2nd of a series of 3 studies of the interview. 276 interviews were used. "Samples of interview conversation (personnel selection interviews) were analyzed according to Bales' interaction process analysis. Scores obtained were correlated with decisions made by interviewers about whether applicants were recommended for acceptance or rejection. . . . specific interaction score variance accounts for interviewer error to a significant degree."—J. W. Russell.

2060. Teel, Kenneth S., & Petersen, Robert L. (Strategic Air Command, Calif.) **A study of test-retest results obtained on aircrew proficiency examinations.** *J. Psychol.*, 1962, 53(2), 289-294.—Analysis of test-retest scores on written proficiency exams for 112 aircrew members revealed a significant increase of 4.82% in mean retest scores, and a significant inverse relationship between amount of improvement and original score. The data were interpreted as suggesting that retest improvement was primarily a function of intervening training and that test security would not be seriously compromised by successive administrations.—Author abstract.

2061. Velehradský A. (Správa dráhy, Plzeň) **Vliv stárnutí na pracovní zařazení.** [Influence of aging on work placement.] *Ceskoslov. Psychol.*, 1961, 5, 337-339.—The author describes problems caused by aging. Psychological care must be used in order to remove the unfavorable influences caused by aging in man's personal life and in his working environment. (Russian & English summaries)—V. Bricháček.

• TRAINING

2062. Alexander, L. T., Kepner, C. H., & Tregoe, B. B. (System Development Corp., Santa Monica,

Calif.) **The effectiveness of knowledge of results in a military system-training program.** *J. appl. Psychol.*, 1962, 46, 202-211.—An experiment to investigate the effects of knowledge of results (KR) on performance improvement of a man-machine, information-processing system. 4 13-man crews were given a pretest exercise, then 12 training exercises, then a posttest exercise in air defense operations using their own operational equipment and a simulated air environment. 2 experimental crews received KR at a postexercise debriefing; 2 control crews received no KR or debriefing. The experimental crews improved more than the control crews in all but one function, but improvement across functions was not equivalent. An inverse relationship was discovered between the operational visibility of a function and amount of improvement when postexercise KR was held constant. Visibility is discussed in its role as an information-feedback concept in system design and system training.—Journal abstract.

2063. Baker, R. C., & Siegel, A. I. **Training requirements for civil defense administrators and leaders.** Wayne, Pa.: Applied Psychological Services, 1958. xxv, 243 p.—The results of the "Inquiry for Civil Defense Administrators and Leaders" implied that many Federal Civil Defense Administration (FCDA) trained personnel are not being maximally utilized on the job. Also implicit in the findings was the fact that local civil defense organizations tend to be under the jurisdiction of officials who have a minimum of FCDA Administration Course training.—P. Federman.

2064. Bonnardel, R. **Evolution des capacités d'une population de jeunes gens candidats à une école d'apprentissage industrielle.** [Development capacities of a population of young applicants for a school of industrial training.] *Travail hum.*, 1961, 24, 243-247.—Test scores of apprentices across 17 years were studied. There were no significant changes in spatial and perception tests. But there was definite improvement in reasoning, verbal comprehension, arithmetic, and spelling.—R. W. Husband.

2065. Čáp, J. (Charles U., Prague) **Aktuální úkoly naší psychologie y odborném vzdělání učňů.** [Practical tasks of psychology in the technical education of apprentices.] *Ceskoslov. Psychol.*, 1961, 5, 312-318.—A brief survey of practical methodological problems of technical training is given from the psychological point of view. The principal research tasks are analysis of the most important types of working activity, formation of working skills, formation of interests in an occupation, and the attitude toward work. (Russian & English summaries)—V. Bricháček.

2066. Federman, P., & Siegel, A. I. **Training requirements for civil defense administrators and leaders; The Radiological Defense Instructor Course.** Wayne, Pa.: Applied Psychological Services, 1960. xxi, 110 p.—A training evaluation of the Radiological Defense Instructor Course was performed. The major conclusions of this evaluation are: (a) the training is vital in preparing the students for their radiological defense assignments in the advent of another war, (b) all lessons in the course are at least "moderately important" and free from extraneous material, and (c) the course is at the proper difficulty level—it presents some challenge

but is well within the potential of the students.—P. Federman.

2067. Gagne, Robert M. (Princeton U.) **Military training and principles of learning.** *Amer. Psychologist*, 1962, 17, 83-91.—"If I were faced with the problem of improving training, I should not look for much help from the well-known learning principles like reinforcement, distribution of practice, response familiarity, and so on. I should look instead at the technique of task analysis and at the principles of component task achievement, intratask transfer, and the sequencing of subtask learning to find those ideas of greatest usefulness in the design of effective training." Major sections are: Some Representative Military Tasks, Learning, Principles, Using These Assumptions and Principles in Training Design, What Is Applicable to the Design of Training? and Summary.—S. J. Lachman.

2068. McGovney, Warren C. (Evanston, Ill.) **Start at the top.** *Advance. Mgmt.-Off. Exec.*, 1962, 1(2), 11-12.—A practical experience report on starting a management training program at the 1st-line management level. If such training programs are to be effective they must be supported by top management. Poor results and wasted time occur with lack of support, since the reactions of the men in training are likely to be those of fear, suspicion, and resentment toward top management.—E. Q. Miller.

2069. Muckler, Frederick Arthur. (U. Illinois) **Transfer of training with long period oscillatory control system transients.** *Dissert. Abstr.*, 1961, 21(11), 3533.—Abstract.

2070. Petrof, John V. (Atlanta U.) **Higher education and smaller business.** *Advanc. Mgmt.-Off. Exec.*, 1962, 1(4), 30-34.—The results of a survey of 111 colleges indicated that the managerial needs of small business are not being met in higher education. Business schools are concentrating on training persons for middle and top-managerial positions, while other levels are being understressed. Academicians have been overlooking the fact that the small-business man has to cope with broader, over-all problems in management much earlier than does the manager in a larger organization.—E. Q. Miller.

2071. Roscoe, Thomas A. (Alcoa, Tenn.) **Formal or informal development programs.** *Advanc. Mgmt.-Off. Exec.*, 1962, 1(4), 11-14.—A report on a survey made to determine what types of executive training programs are in use and what subjects are included. 46 assorted companies reported 21 topics used in 27 organized programs. Seniority, as opposed to ability, is still a major basis for promotion.—E. Q. Miller.

2072. Schwitter, Joseph P. (Kent State U.) **Training Russian managers.** *Advanc. Mgmt.-Off. Exec.*, 1962, 1(2), 15-22.—Management as a science or a discipline for academic pursuit is not recognized in the Russian educational system. In schools, emphasis is placed on technical competency. How to work with people is then best learned on the job, or in extracurricular activities of various kinds. There is no psychology or sociology in the Russian curriculum. Most of the Russian managers have college degrees in engineering.—E. Q. Miller.

2073. Sharma, Atmananda. (Psychological Research Wing, New Delhi, India) **Improvement through training: A criterion in test validation.**

Def. sci. J., Delhi, 1961, 11(3), 183-190.—This study was undertaken to decide about an adequate criteria which may be adopted in validating aptitude tests used in Naval Training Schools. 3 criteria (final score, residual gain, and crude gain) were compared. The final decision regarding the choice of criterion was primarily based on logical considerations. Residual gain, which measures that aspect of final score which is uncorrelated with initial status and thus removes some of the nonappropriate variance from the criterion and further overcomes the inconsistencies which crude gain presents, was found to be a more realistic criterion.—*Journal abstract.*

TASK & WORK ANALYSIS

2074. Belanger, Pierre R. **Time-varying characteristics of the human operator in an open loop.** *USAF ESD tech. docum. Rep.*, 1962, No. 62-31. v, 51 p.—This study utilizes the classical theory of time-varying networks, due to Zadeh, to describe randomly time-varying characteristics of the human operator of a control system. The present technique extends previous work on time varying characteristics of human operators in that the complete spectra of amplitude and phase modulation can be measured. The method is applied to the performance of the human operator in tracking tasks without visual feedback. The human is required to track a random appearing target which is displaced as the sum of 5 nonharmonic sinusoids. The effects of various gains and dynamics of the controlled process are investigated. An estimate is given of the magnitudes and spectra of the time variation, though insufficient data were available in the present experiments for complete determination of the modulation spectra. The human's transfer function is found to vary randomly in time. The average open-loop characteristics show that with no dynamics in cascade with the human, the latter has more difficulty remembering the proper gain than the proper phase which he must apply in order to track accurately. When dynamics are introduced, it is seen that the human tends to forget the effects that the dynamics produced when tracking with feedback.—*Journal abstract.*

2075. Folley, John D., Jr. (American Inst. Research) **A preliminary procedure for systematically designing performance aids.** *USAF ASD tech. Rep.*, 1961, No. 61-550. 34 p.—Performance aids are devices or documents that facilitate task performance by humans in a system. These supplementary aids to performance can enhance the overall quality of a system by assisting in achievement of more nearly optimal man-machine function allocation, by reducing the level of requirements on selection, training, and manning, or by raising on-the-job performance levels. 4 steps in the design of performance aids are presented: (1) identification of task elements for which aids should be provided; (2) determination of appropriate functional characteristics of aids for these task elements; (3) specification of the physical design characteristics of the aids to carry out the functions; and (4) evaluation, modification, and updating of the aids. Supplementary data on capabilities of performance aids are presented for use with the procedure. The procedure is untried and of necessity uses stopgap solutions to problems on which much research or development is needed.—*USAF ASD.*

2076. Folley, John D., Jr., & Munger, Sara J. (American Inst. Research) **A review of the literature on design of informational job performance aids.** *USAF ASD tech. Rep.*, 1961, No. 61-549. 43 p.—Performance aids are items of auxiliary equipment or documents provided to enhance on-the-job performance. Military reports and psychological journals were surveyed to identify reports of research on the design of performance aids. Most research on this topic was done prior to 1958. No studies attempted to identify the significant variables in this design of aids. The preponderance of the work was concerned with developing and trying sample aids. Several studies indicated that procedural aids can facilitate trouble-shooting performance. The extent to which other kinds of aids can facilitate performance of other kinds of tasks is unknown. (Annotated bibliogr.)—*USAF ASD*.

2077. Heron, Alastair. (U. Liverpool) **Immediate memory in dialling performance with and without simple rehearsal.** *Quart. J. exp. Psychol.*, 1962, 14, 94-103.—"Using a Latin square design, subjects were required to dial 10 8-digit messages in each of 6 conditions (3 with auditory and 3 with visual presentation). Dialling was carried out (1) immediately the message had been presented; (2) after it had been once vocally rehearsed by the subject; (3) after it had been written down while being vocally rehearsed. A complete record was obtained of all performances, at rehearsal and at dialling. It was found that with auditory serial presentation, immediate vocal rehearsal and immediate dialling are equally good and both superior to dialling which followed vocal rehearsal. With visual simultaneous presentation, immediate vocal rehearsal is clearly superior to dialling with or without rehearsal, which do not differ. Performance after written-down rehearsal was the worst in both modes of presentation. A non-linear relationship between intelligence and performance was found, and acute individual differences in performance were observed among the subject of the highest intelligence."—*E. Y. Borrowman*.

2078. Iteľ'son, L. B. (Azerbaijani Pedagogical Inst., Baku) **O psikhologicheskikh osobennostyakh truda apparatchika v nepreryvnom khimicheskom proizvodstve.** [On the psychological characteristics of the work of technicians in chemical production.] *Vop. Psikhol.*, 1961, 7(5), 109-120.—A job analysis is presented of an operator's work in directing the refinement of oil. The activities that an operator performs involve a constant registering of information and controlling of the production process, an accounting of the product coming out, planning of the subsequent output, directing and regulating the process to correspond to changes in products demanded, and the service of equipment and organization of work. Special analysis is made of the procedures used by operators to handle the large amount of information with which they are continuously presented, and their techniques for handling deviations from normal operating states. Information strain is reduced by attending only to the more important signals, by noting the position of pointers relative to normal (rather than absolute values), by successive scanning of indicators, and by anticipating from previous indications the state of the various displays. Deviations from normal conditions are handled by various procedures typified by (a) correcting on the basis of

general principles governing the production process or (b) minimizing the possibility of the severest casualties.—*H. Pick*.

2079. Kaufman, R. A., & Kaufmann, M. I. (Aerospace Div., Boeing Aircraft Co., Seattle) **Predicting human factors errors.** *Engng. industr. Psychol.*, 1960, 2, 47-56.—The cost, weight, and volume of a given package are hypothesized as being related to magnitude of human error. After examining weapon system data, combinations of predictors for mechanical and electrical subsystems are formulated. Significant correlations are reported and the rationale for predictor equations explained.—*C. F. X. Youngberg*.

2080. Kidd, J. S., & Kinkade, Robert G. (Ohio State U.) **Operator change-over effects in a complex task.** *J. engng. Psychol.*, 1962, 1, 82-91.—2 related experiments were performed, (a) to study changes in performance of a simulated air traffic control system resulting from operator change-over and a long (3.5-hour) work period, and (b) to evaluate the effects of varying amounts of prechange-over participation in the task. In the 1st experiment performance was found to be relatively stable over the long work period; there was a sharp, short, decrement in performance following a 2-minute orientation period. The 2nd experiment showed that the more nearly the prechange-over orientation resembled the actual task, the less was the performance decrement following change-over.—*D. C. Hodge*.

2081. Mitra, S. K., & Misra, M. M. **Analysis of work with automatic looms.** *Psychol. Stud., Mysore*, 1962, 7(1), 32-51.—5 grades of workers were observed for 450 minutes in 6 units of observation. This resulted in job analysis data. The various characteristics found were: (a) for group leader: perceptual speed, perceptual accuracy, perception of movement, mechanical comprehension, and visual acuity; (b) for weaver: eye-hand coordination, speed of finger and hand movement, finger dexterity, respective hand movement, hand steadiness and precision, physical endurance, and visual acuity; (c) for oiler & cleaner: speed of finger and hand movement, and repetitive hand movement; (d) for battery filler: 2 hand coordination, speed of finger and hand movement, finger dexterity, and repetitive hand movement. Observer data appear in appendix.—*U. Pareek*.

2082. Mukhopadhyay, Prabhat K., & Sirkar, A. K. (Calcutta) **The effect of different phases of cutaneous pain and pressure on respiratory systems in reference to normal conditions of muscular activity leading to fatigue.** *Indian J. Psychol.*, 1958, 33, 275-280.—Pneumographic records were taken on 10 male postgraduate students during: periods of rest, muscular work (until complete fatigue was reached), pain and pressure tests. "Respiratory changes in the gradient pain and pressure modalities show marked affinities in the specific phases of work leading up to fatigue."—*E. Y. Beeman*.

2083. Nebilytsyn, V. D. (Inst. Psychology APN RSFSR, Moscow, USSR) **K izucheniyu nadezhnosti raboty cheloveka-operatora v avtomat-izirevannykh sistemakh.** [On the study of reliability of the human-operator in automated systems.] *Vop. Psikhol.*, 1961, 7(6), 9-18.—In a theoretical discussion, reliability is defined as the ability or capacity for preservation of necessary characteristics under

extenuating conditions. It is considered to have both a quantitative and qualitative aspect and is differentiated from effectiveness in that reliability is one of the conditions for effectiveness. Reliability must be determined both for the extreme as well as more normal operating conditions. For human operators failure can be considered to occur both when the organism is incapable of working due to sleep, loss of consciousness, etc., as well as when errors are made. With this in mind certain indices can be used to evaluate reliability such as average time between errors, number of errors per unit time, percent of task completed, probability of errorless performance in a given unit of time. Factors which effect reliability include design of the apparatus, state of training of the personnel, and individual differences in physical and psychological characteristics. These are reflected in such characteristics as long term endurance, endurance in extreme conditions, resistance to distraction, etc. It is suggested that changes in physiological indices which occur under reduced vigilance, e.g., sleep could serve as means of controlling failure.—*H. Pick.*

2084. Office of Naval Research. Tri-Service Conference on the Role of Job Evaluation Techniques in the Structuring of Military Occupations. *Off. Naval Res. Symp. Rep.*, 1961, No. 71, 53 p.—A report of the 4th of a series of 5 conferences. Modern military needs call for increasing numbers of men in managerial, scientific, and high level technical areas; but existing job evaluation techniques were developed primarily for blue collar jobs. Job evaluation research and practices of industry and of the military are reviewed.—*E. L. Borrowman.*

2085. Sadacca, R., Castelnovo, A., & Ranes, J. Human factors studies in image interpretation: The impact of intelligence information furnished interpreters. *USA TAG R & D Command Hum. Factors Res. Br. tech. res. Note*, 1961, No. 117. 23 p.—In the continuation of research concerned with development of techniques to improve performance of image interpreters, 2 closely related studies were undertaken to determine (a) whether additional intelligence information furnished the interpreter influenced his performance with reference to accuracy and speed of reporting or certitude of interpretation and (b) whether performance was differentially affected by officer-enlisted status or class standing in the PI Course. Among interpreters furnished additional intelligence information, a larger proportion were consistently above the median in correct identification of objects in the photographs; this group also reported more objects where actually none appeared. Average confidence levels were apparently not affected by presence or absence of the additional intelligence. Where no additional information was furnished either the experimental or the control group, levels of performance between the groups were comparable. Evidence did not reveal significant differences in performance as affected by either the interpreter's status or class standing or by variations in purported reliability of the intelligence source.—*A. J. Drucker.*

2086. Seibel, R. (IBM Research Center, Yorktown Heights, N. Y.) Performance on a five-finger chord keyboard. *J. appl. Psychol.*, 1962, 46, 165-169.—Discrimination Reaction Times (DRTs) were examined for each of the 31 chords possible with a

5-finger keyboard. Each of 4 paid Ss showed marked improvement in performance over 4000 to 11,000 DRTs on the 31-chord task despite extensive prior practice on subsets of the 31 chords. DRTs between .30 and .35 sec. were obtained for the average of all 31 chords. Information transmitted from stimulus to keyboard was greater than 4.25 bits. In terms of average DRTs, the relative difficulties of the 31 chords were very similar for the 4 Ss. The percentage of error for each of the chords was highly correlated with the DRTs.—*Journal abstract.*

WORK ENVIRONMENT & PERFORMANCE

2087. Chiles, Dean W., & Adams, Oscar S. (Aerospace Medical Lab.) Human performance and the work-rest schedule. *USAF ASD tech. Note*, 1961, No. 61-270. ii, 5 p.—This report contains a condensation of the material most relevant to the problem of work: rest scheduling in advanced aerospace systems. The major conclusions drawn are: (a) periods of wakefulness longer than 24 hours requiring performance of critical tasks are not feasible as a routine procedure; (b) 6 hours of sleep per day are adequate for most individuals; (c) sleep periods should not be less than 2 hours in duration; (d) continuous performance of monotonous tasks by themselves should not exceed 2 hours; (e) performance of active tasks may be extended to 10 hours; (f) total cycle duration (work plus rest) should be 4, 6, 8, or 12 hours in order to permit regular day to day schedules; (g) where stress will be high, schedules no more severe than 2-work: 2-rest (or equivalent) should be used; (h) 7 or 8 days pretesting should be adequate to select persons adaptable to schedule changes; (i) a 5-day pre-adaptation period should be used to overcome initial sleep losses.—*USAF ASD.*

2088. Chisman, James A., & Simon, J. Richard. (State U. Iowa) Protection against impulse-type industrial noise by utilizing the acoustic reflex. *J. appl. Psychol.*, 1961, 45(6), 402-407.—"This experiment was designed to investigate the practicality of externally eliciting the acoustic reflex to protect the ear from industrial impulse noise. Ten subjects were exposed to 100 impacts of the recorded noise of a mechanical drop hammer during a 10-minute period. The noise was presented at a 120-db. average SPL. Subjects listened to the same noise under three conditions. . . . eliciting the acoustic reflex prior to an impact may be an effective means of protecting the ear against industrial impulse noises. The advantages of AR protection over protection provided by earplugs are discussed."—*J. W. Russell.*

2089. Cureton, Edward E., & Katzell, Raymond A. (U. Tennessee) A further analysis of the relations among job performance and situational variables. *J. appl. Psychol.*, 1962, 46, 230.—In connection with an investigation of the relationships among employee attitudes, performance, and characteristics of the situation, data were collected from 72 divisions of a company. The variables included 5 measures of divisional performance and 5 descriptives of situation. An oblique-factor analysis of these variables results in 2 positively correlated factors. The 1st factor is associated negatively with divisional and community size, and positively with productivity and profitability. The 2nd is associated inversely with wage rate, unionization, and proportion of male em-

ployees, and positively with turnover. These results, in combination with some previously reported, indicate that performance is related to 2 aspects of the degree of urbanization of the situation.—*Journal abstract.*

2090. Madden, Joseph M. (Lackland AFB, Tex.) What makes work difficult? *Personnel J.*, 1962, 41(7), 341-344.—Each of 37 Air Force noncommissioned officers filled out 2 forms, one giving 3 tasks that were difficult to learn and one giving 3 tasks that were difficult to perform. In each case, they were asked to tell why they were difficult. The reasons were classified as: pressure; working conditions; attention; interpersonal relations; frustration; training; regulations; technical publications, manuals; forms; aptitude; and unclassified. The most frequent reason for difficulty to perform was classified under interpersonal, indicating difficulty with supervisors or peers. The most frequent reasons for difficulty in learning were inadequate training and lack of aptitude. Most difficulties in doing the work were attributed to the environment and no mention was made of any difficulty due to physical effort.—*M. B. Mitchell.*

2091. Ormiston, Donald W., & Finkelstein, Beatrice. (Behavioral Sciences Lab.) The effects of confinement on intellectual and perceptual functioning. *USAF ASD tech. Rep.*, 1961, No. 61-577. 16 p.—10 Ss were individually confined in a small capsule for 48 hours and required to work intermittently on intellectual, perceptual, and compensatory tracking tasks. $\frac{1}{2}$ of the Ss received conventional meals. The other $\frac{1}{2}$ were provided a diet designed for consumption in a space vehicle. The normal cycle of sleep and wakefulness was maintained throughout the confinement period. 10 control Ss underwent the same conditions except they were confined only while eating or working. Intellectual tasks were: arithmetic, digit memory, confusing sentences, nonsense syllables, verbal analogies, same-opposite word meanings, and logical reasoning. The perceptual tasks were: warning-light monitoring, finding embedded figures, form discrimination, and aerial reconnaissance. No decrement was observed in intellectual performance.—*USAF ASD.*

2092. Richardson, F. L. W. Talk, work, and action. *Soc. Appl. Anthropol. Monogr.*, 1961, No. 3. 96 p.—This case study, in an industrial setting, analyzes reactions of a work group following the replacement of the group's supervisor. It examines the direct and immediate interconnections between the emotions and interactions of the group. 3 major indices of emotional reaction are investigated: verbal sentiments (talk), group productivity (work), and signs of withdrawal or aggression (action). 7 suggestions for action to improve human environments are presented for consideration.—*G. M. Spencer.*

MOTIVATION, ATTITUDES, TRAITS

2093. Adams, J. Stacy, & Rosenbaum, William B. (General Electric Co., NYC) The relationship of worker productivity to cognitive dissonance about wage inequities. *J. appl. Psychol.*, 1962, 46, 161-164.—2 hypotheses derived from dissonance theory were tested: (a) When a person is paid by the hour his productivity will be greater when he perceives his pay as inequitably large than when identical pay is perceived as equitable, and (b) when a person is paid

on a piecework basis his productivity will be less when he perceives his pay as inequitably large than when he perceives identical pay as being equitable. The first hypothesis was sustained ($p < .05$) in a laboratory experiment in which 11 male college Ss earned \$3.50 per hour and were induced to feel overpaid and 11 control Ss earned \$3.50 per hour and were induced to feel fairly paid. The second hypothesis was sustained ($p < .01$) in a factorial design study in which 36 Ss were paid either \$3.50 per hour or 30 cents per piece, and felt either equitably paid or inequitably overpaid. In both studies an identical task, in which Ss interviewed the general public, was used.—*Journal abstract.*

2094. Aseev, V. G. (Inst. Psychology APN, RSFSR Moscow, USSR) K voprosu o monotonnosti raboty pri vypolnenii konveynnykh operatsii. [On the question of the monotony of work in the execution of conveyor operation.] *Vop. Psikh.*, 1961, 7(6), 37-55.—The present study was designed to discover some objective indicators of monotonous work and to establish what objective, temporal, and structural properties of work on conveyor lines are less likely to lead to monotony. As indices of monotonous work, reaction time for a simple motor response and critical fusion frequency were tried. On test trials with workers performing monotonous conveyor tasks these indices were found to change in contrast with workers at the same factory who were performing nonconveyor type operations. Over the working day the assembly line workers showed an increase in reaction time and a greater variability of reaction time. The critical fusion frequency decreased for these workers. The indices for the other workers remained essentially constant. Then a series of experiments were carried out with conveyor type workers in 3 factories and a mock up assembly line in the laboratory. In the case of the factory workers the temporal and operational characteristics of the work were correlated with the above indices of monotony. In the case of the laboratory experiments the characteristics of the task were directly manipulated. Results suggest that the arousal of monotony does not always depend just on the duration of each operation and its uniformity. Such factors as rhythm of work, micropauses during the operation, and social organization of the work also play a role.—*H. Pick.*

2095. Baldwin, Thomas Sanderson. (Ohio State U.) The relationships among personality, cognitive, and job performance variables. *Dissert. Abstr.*, 1961, 21(10), 3171.—*Abstract.*

2096. Bose, S. K. (Bangalore) Industrial motivation for higher production. *Indian J. Psychol.*, 1958, 33(4), 237-247.—A discussion of factors influencing employee morale.—*E. Y. Beeman.*

2097. Campbell, David. (U. Minnesota) The use of response patterns to improve item scoring. *J. appl. Psychol.*, 1962, 46, 194-197.—This study compared the validity of 2 methods of scoring the Minnesota Vocational Interest Inventory. One method used keys developed in the usual manner by selecting items that differentiated between specific occupational groups and a reference group of tradesmen-in-general. The other method used keys developed by selecting items that were part of response patterns that differentiated between criterion and reference groups. 3 occupational keys were developed and cross-validated: painter, printer, and electrician. Results showed that

the keys were about equal in their ability to separate criterion from reference groups, but the key developed from response patterns used far fewer items.—*Journal abstract*.

2098. Cleland, C. C., Cochran, W. E., Love, J. G., & Vowell, R. W. (Abilene State School) **The "Hawthorne effect" in an institution in transition.** *Amer. J. ment. Defic.*, 1962, 66(5), 723-728.—Unlike the Hawthorne investigations with only 5 workers, this study trained large groups of institutional workers. In the 1st phase, attempts were made to change large groups' attitudes rapidly. In the 2nd phase, the focus of attention was a group of 11 individuals charged with supervisory and administrative responsibilities. The 3rd phase involved the creation of an example as a possible goal for others to emulate. This phase came closest to the results achieved in the Hawthorne study. Attention on a systematic basis from top management produced the desired results. The authors point out that an institution in transition encounters problems which demand a systematic approach.—*V. Staudt-Sexton*.

2099. Coleman, C. J. (National Drug Co., Philadelphia, Pa.) **A basic program for employee development.** *Personnel*, 1962, 39(2), 17-25.—Emphasis is given to the fact that development can take place only in a climate that fosters individual growth. Conscious effort and planning are required to create such a climate. A sound managerial approach is necessary.—*V. Staudt-Sexton*.

2100. Crockett, Harry J., Jr. (U. North Carolina) **The achievement motive and differential occupational mobility in the United States.** *Amer. sociol. Rev.*, 1962, 27(2), 191-204.—TAT responses from a national sample of 175 males were scored for achievement motivation in order to determine the relation between the strength of this motive and intergenerational occupational mobility in the United States. "Atkinson's theory of achievement motivation, shown to be relevant to the study of occupational mobility, predicts that strength of achievement motive—among persons sharing equal opportunity—will be positively correlated with upward occupational mobility and negatively associated with downward occupational mobility. In the national sample studied, the expected results are clearly obtained with regard to upward mobility among persons reared in the lower social strata, but predicted relationships are not found among persons reared in the middle and upper strata. The hypothesis concerning strength of achievement motive and downward mobility is not supported. The results indicate the fruitfulness of considering personality variables in conjunction with social structure variables in the study of occupational mobility."—*L. Berkowitz*.

2101. Form, William H., & Geschwender, J. A. (Michigan State U.) **Social reference basis of job satisfaction: The case of manual workers.** *Amer. sociol. Rev.*, 1962, 27, 228-237.—545 interviews (1950-51) with manual workers in Lansing, Michigan, demonstrated the utility of reference group theory for the study of job satisfactions. Some of the findings were: (a) "almost four fifths of the respondents reported that their parents had no occupational aspirations for them," perhaps because the parents saw little likelihood of occupational mobility; (b) upwardly mobile sons, "those who achieved an occupational level higher than their fathers, exhibited

a significantly higher mean job satisfaction score than did sons who were downwardly mobile"; (c) workers who achieve a higher occupational level than that of their brother exhibit a significantly higher mean job satisfaction score than those whose occupational level is equal to that of their brother. Other results suggest that manual workers "use those of similar origin as social references in evaluating their occupational achievements."—*L. Berkowitz*.

2102. Gordon, Leonard V., & Alf, Edward F. (USN Personnel Research Activity, San Diego) **The predictive validity of measured interest for Navy vocational training.** *J. appl. Psychol.*, 1962, 46, 212-219.—An experimental interest test, yielding scores on 5 homogeneous scales, was administered to a sample of recruits on their 3rd day in the Navy. Recruits were assigned to Naval school training, on the basis of expressed interest and aptitude test scores, by classification personnel who did not have access to interest test scores. Follow-up results are reported for 19,147 recruits assigned to 51 schools, each of which had a related scale on the interest test. For students in each of the 51 schools, the mean score on the related interest scale was significantly higher than the corresponding mean score for the general recruit population. For 41 schools, the related interest scales had statistically significant predictive validity against a school grade criterion. Related interest scales contributed significantly to operational aptitude tests in predicting school success.—*Journal abstract*.

2103. Harding, Francis D., & Bottenberg, Robert A. (Personnel Lab., Lackland AFB) **Effect of personal characteristics on relationships between attitudes and job performance.** *J. appl. Psychol.*, 1961, 45(6), 428-430.—Using 376 airmen, Whitlock and Cureton (see 35: 7252) collected attitude score and biographical data, which is reanalysed in the present study, using multiple regression techniques. "... much of the criterion variance associated with attitude measures is also related to more easily obtained biographical characteristics of workers and biographical variables should be considered when relating attitudes to productivity."—*J. W. Russell*.

2104. Herman, Louis M., Lindsay, Carl A., & Zeigler, Martin L. (Pennsylvania State U.) **A vocational interest scale for biologists.** *J. appl. Psychol.*, 1962, 46, 170-174.—A Biologist scale for the SVIB (Form M) was developed following procedures outlined by E. K. Strong, Jr. 4 groups were employed: (a) criterion (N=251) systematically selected from Volume 2 of *American Men of Science*, (b) cross-validation (N=89) selected at an American Institute of Biological Science convention, (c) 2 concurrent validation groups (Ns=121, 306) selected from the Pennsylvania State University student body. Results indicated that the scale differentiated the interests of: (a) the biologists from Strong's men-in-general group (P₁), (b) the biologists from the interests measured by 36 other SVIB scales, (c) the concurrent validation groups in the expected direction. Reliabilities of .88 (criterion) and .87 (cross-validation) were obtained. It was concluded that the scale has sufficient validity and reliability to be a useful counseling device.—*Journal abstract*.

2105. Huse, Edgar F., & Taylor, Erwin K. (Raytheon Co., Boston, Mass.) **Reliability of absence measures.** *J. appl. Psychol.*, 1962, 46, 159-160.—4 different absence measures were defined and

examined: attitudinal absences, absence frequency, absence severity, and medical absences. Attitudinal absences and absence frequency were sufficiently reliable to be used as criterion measures; absence severity and medical absences were considered to be too unreliable for use as criterion measures.—*Journal abstract.*

2106. Kinnane, Mary. (Boston Coll.) **Attitudes of college students toward college teaching as a career.** *Educ. Rec.*, 1962, 43(2), 139-147.—A questionnaire was administered to nearly 4000 students in 45 New England colleges and universities to determine their attitudes toward college teaching as a career. Attitudes seem to be governed by low teacher's salaries and the plenitude of job opportunities. In general, high regard for their own mentors and for teaching as a career was reflected in the responses.—*W. W. Meissner.*

2107. Larrue, Janine. **Activité militante et loisir.** [Labor union activity and leisure] *J. Psychol. norm. pathol.*, 1961, 58(3), 291-308.—A study of leisure time activity of general factory workers, former union officials, and workers currently holding offices in their labor union. The latter constitute 14% of the total and tend to be single, relatively young, and better educated than the group as a whole. Union officers have less free time, since they spend evenings and often Saturdays on union business, but spend their leisure time more productively, e.g., reading, theater attendance, etc.—*M. L. Simmel.*

2108. Levandouskii, N. G. (Lab. Industrial Psychology, Leningrad U.) **Otnoshenie kak faktor psikhicheskoi regulatsii deistvii.** [Attitude as a factor in mental regulation of behavior.] *Vop. Psikh.*, 1961, No. 5, 135-142.—The regulation of the behavior of man and machine is discussed; and the point is made that along with the more objective conditions of the task, the attitude of man plays an important role in his regulation of his behavior. Some reaction time data are analyzed to indicate that a trained specialist may not do as well on a very simple task but may do better on a more complex task than a naive S. The specialist's poor performance is attributed to his poor attitude when confronted with a simple task.—*H. Pick.*

2109. Mendelson, Martin A. (New York U.) **Personality and interests of Air Force personnel.** *Dissert. Abstr.*, 1961, 21(12), 3844-3845.—*Abstract.*

2110. More, Douglas M. (Nicholson-Kohn & Associates, St. Louis) **Demotion.** *Soc. Probl.*, 1962, 9(3), 213-221.—An attempt is made to lay out a scheme of the forms of demotion observed in a wide range of United States businesses; to indicate the conditions which increase the likelihood of demotion being used as a business process; and to analyze the consequences of demotion on the individuals demoted and on the company organizations in which this takes place. Specific effects of demotion on the behavior of individuals directly or indirectly involved are, among others, decreased individual productivity, decreased creative efforts, loss of loyalty, increased chronic illness, increase in abuse of privileges, moonlighting, formation of protective power cliques, and other symptoms of loss of morale. Demotion is seen as an important instance of downward social and occupational mobility warranting serious further research.—*R. M. Frumkin.*

2111. Pearlin, L. I. (National Inst. Mental Health) **Alienation from work: A study of nursing personnel.** *Amer. sociol. Rev.*, 1962, 27(3), 314-326.—"Alienation, defined as subjectively experienced powerlessness to control one's own work activities, is examined among the nursing force of a large mental hospital. It is found that alienation is intensified where authority relations are such as to limit the reciprocal influence of subordinates. This is reflected in situations where there is great positional disparity between subordinates and their subjects, where authority is exercised in a peremptory fashion and where authority figures are physically inaccessible. Career experiences within the hospital opportunity structure are also related to alienation; limited achievement and dissatisfaction with extrinsic work rewards are alienative conditions. Finally, personnel working in isolation and without outside social ties to fellow workers are more subject to intense alienation."—*L. Berkowitz.*

2112. Phelan, Joseph G. (Los Angeles State Coll.) **Exploration of personality correlates to business risk-taking behavior.** *J. Psychol.*, 1962, 53, 281-287.—An attempt to ascertain if business students, classified by scores on Cautiousness subscale of Gordon Personality Inventory, might make differentiated risk-taking decisions in a simulated business situation. 12 groups, composed of 3 cautious, neutral, or impulsive personality types per group, were paired against each other in all combinations to play the business game, "Management," produced by Avalon-Hill Company. Criterion measures were made in terms of amount of money and number of units offered as a bid for sale. Response latencies for the time required to make the decisions were also ascertained. Sign tests were significant at less than the .05 and .01 levels for the dependent variables mentioned. Cautious groups tended to be more conservative in their bidding and impulsive groups more radical regardless of the feedback of the game which contained information relevant to monetary losses. The Wilcoxon rank test for paired observations was significant at less than the .02 level, substantiating magnitude differences in bidding.—*Author abstract.*

2113. Rim, Y. **Dimensions of job incentives and personality.** *Acta psychol., Amsterdam*, 1961, 18(5), 332-336.—Job security seems to play a more important role among Pittsburgh than among Haifa students. Low scorers on extraversion and neuroticism ranked opportunity to learn new skills as more important than did high scorers. Students scoring high on neuroticism ranked good salary as more important than did low scorers. Fear of failure is evident in high neuroticism and extraversion scorers.—*G. Rubin-Rabson.*

2114. Willing, J. Z. **The round-table interview: A method of selecting trainees.** *Personnel*, 1962, 39(2), 26-32.—A selection technique used at Revlon, Inc. is described. Their method of choosing management trainees not only saves executive time but also seems to result in better decisions. Through discussion, a great deal is learned about the candidates before a hiring commitment is made.—*V. Staudt-Sexton.*

MANAGEMENT & ORGANIZATION

2115. Bostrom, Karl. (Milwaukee, Wis.) **Venture management and national growth.** *Advanc. Mgmt.*

Off. Exec., 1962, 1(2), 20-23.—"If . . . we are going to move forward and continue to lead the world as a free enterprise system the time is now to take cognizance of the fact that national growth is made by innovators who use the tools and techniques of money and planning after they have ideas . . . not the other way around. We have steadily bled out of the population, both in our schools and in our jobs, the ideals of enterprising, the exhilaration and high motivation of being on one's own. . . . the large and small Foundations, whose capital was created by great entrepreneurs." We know appallingly little about the conception of "independent venture management." It is up to all our public and private institutions to help initiate a new entrepreneurial explosion that will put us back on the high road of national growth.—*E. Q. Miller.*

2116. **Chruden, Herbert J., & Sherman, Arthur W., Jr. (Eds.)** (Sacramento State Coll.) *Readings in personnel management*. Cincinnati, O.: South-Western, 1961. viii, 693 p. \$7.00—A collection of 64 articles published in professional (management) and trade journals between 1955 and 1960, selected as supplementary readings for personnel management courses. Articles are grouped in 12 chapters titled "The Personnel Organization and Program," "Procurement and Development," "Morale and Adjustment," etc. The editors have added discussion questions at the end of each article and an introduction and bibliography for each chapter.—*M. L. Kelly.*

2117. **Dill, W. R., Hilton, T. L., & Reitman, W. R.** (Carnegie Inst. Technology) *The new managers: Patterns of behavior and development*. Englewood Cliffs, N. J.: Prentice-Hall, 1962. ix, 249 p. \$5.95.—Using an intensive interview technique 30 recent graduate school alumni were probed for the answer of what makes a successful manager in American industry today. The aspirant should decide what kind of manager he wants to be and why he wants to be one (reasons should be positive). Other qualities are that he be preferably in the top 10% of population intellectually, be well-trained, maintain an independent and somewhat skeptical attitude toward job demands, and accept ambiguity and uncertainty as a natural condition of work. He should also be perceptive about what his superior wants and expect variation in evaluation of his performance; should select an environment which permits him to test his interest, gives feedback on performance, and does not block opportunity; and should develop sensitivity skills as to his present situation and the likely future.—*E. Q. Miller.*

2118. **Emery, F. E., & Marek, Julius.** (Tavistock Inst. Human Relations, London) *Some socio-technical aspects of automation*. *Hum. Relat.*, 1962, 15(1), 17-25.—Some preliminary indications are offered on the effects of automation of a power plant. The changeover was completed smoothly and without any labor stoppages, disputes, or deterioration of labor-management relations. The technical improvements were achieved through: (a) increased complexity of the total process, (b) decreased tolerance for disturbances in the process, and (c) increased separation of operators from the process. This increased complexity places new demands on operators and changes the pattern of operator-supervisor relations. There is greater homogeneity and less of a responsibility gap. Problems in the use of the case

study method for evaluating the effects of automation are discussed.—*W. W. Meissner.*

2119. **Ferguson, Charles E., & Pfouts, Ralph W.** (Duke U.) *Learning and expectations in dynamic duopoly behavior*. *Behav. Sci.*, 1962, 7(2), 223-237.—The various theories of competition in the business world have shown marked discrepancies between model-analysis conclusions and real-world experiences. The present paper adds the principle of information feedback and the consequent generation of a learning process to these models and shows the efficacy of this additional assumption. (44 ref.)—*J. Arbit.*

2120. **Greenberger, Martin.** (Massachusetts Inst. Technology) *Management and the computer of the future*. New York: Wiley, 1962. xxvi, 340 p. \$6.00.—A series of 8 lectures and discussions. The topics covered are: scientists and decision making, managerial decision making, simulation of human thinking, a library for 2000 A.D., the computer in the university, time-sharing computer systems, a new concept in programming, and what computers should be doing. A selected bibliography and biographical sketches of all contributors and session chairmen are included.—*G. C. Carter.*

2121. **Greer, Edith S.** (United States Office Education, Washington, D. C.) *Human relation in supervision*. *Education*, 1961, 82, 203-206.—An investigation of human relations in supervision analyzed (a) tensions and pressures, (b) focus on human relations, (c) breakdown in communication, (d) identifying problems, and (e) action in improving human relations.—*S. M. Amatora.*

2122. **Guetzkow, H., Forehand, G. A., & James, B. J.** (Northwestern U.) *An evaluation of educational influence on administrative judgment*. *Admin. sci. Quart.*, 1962, 6(4), 483-500.—Studies of the effects on executive judgment of 2 executive development programs for government administrators are discussed. Superiors and peers of the participants, in a regional program of 33 weekly sessions, perceived a change in the behavior of the participants during the program, as compared with nonparticipating control members. The behavior of participants in 2- and 4-week residential programs was not perceived as changed. Changes in objective test performance were not observed for any of the participants. Differences in the results of the 2 programs were tentatively attributed to the different climates of the sponsoring organizations.—*V. Staudt-Sexton.*

2123. **Hund, James M.** (Emory U.) *Changing role in the interview situation*. *Publ. Opin. Quart.*, 1959, 23(1), 236-246.—A report of experiences in interviewing the executive personnel of business organizations. Topics covered were: the research site, sponsorship, preparing for the interview, the interview, criticism and comments, and conclusions.—*E. P. Hollander.*

2124. **Indian Institute Personnel Management.** *Personnel management in India: The practical approach to human relations in industry*. Bombay, India: Asia Publishing House; N. Y.: Taplinger Publications, 1961. 316 p. \$6.00.—The aim of the volume is to provide a text on the principles of personnel management against the present Indian scene rather than to rely on British or American sources. The social background of the worker who

migrates from country to town is first discussed, together with the adjustments he must make in the process. Part II discusses the nature of personnel management and how it developed in the West and in India. Part III is devoted to industrial relations (labor and social security legislation in India, employer and worker associations, and collective bargaining). Part IV describes the day-to-day work of a personnel department. Appendices give welfare officer service rules and case notes of actual Indian personnel operation schemes.—*W. L. Barnette, Jr.*

2125. Jerdee, Thomas Harlan. (U. Minnesota) **Supervisor perception of subordinate attitudes.** *Dissert. Abstr.*, 1961, 22(1), 334—Abstract.

2126. Katzell, Raymond A. (New York U.) **Contrasting systems of work organization.** *Amer. Psychologist*, 1962, 17, 102-108.—At present there is "no one conception or strategy of work organization that is unequivocally or universally superior to others, in terms of results achieved. . . . The malfunctioning of the classical, directive, or bureaucratic systems of organization has been . . . thoroughly aired. . . . The alternative strategy of organizational design of the democratic, participative, human relations type . . . proposed as a corrective . . ." is also questioned. Needed "is a scientific, descriptive theory of organization which spells out the relationships among given dependent variables . . . under various situational conditions or parameters."—*S. J. Lachman.*

2127. Kidd, J. A., & Christy, R. T. (Ohio State U.) **Supervisory procedures and work-team productivity.** *J. appl. Psychol.*, 1961, 45(6), 388-392.—"A complex task setting provided by the simulation of a radar air traffic control system was the context employed to evaluate the extent to which work-team productivity is modifiable as a consequence of different supervisors and supervisory procedures under different task loads. Six two-man teams were observed. Each team worked under each of three supervisors. The supervisors shifted from team to team. Three techniques were adopted alternately: laissez-faire, active monitoring, and direct participation. It was observed that the individual supervisor was a more consistent influence on performance than the particular role he employed. The effect of role per se was significant but interpretable only in light of the particular performance criterion used. For example, processing speed was greatest under laissez-faire conditions, while error avoidance was superior under the conditions which required more overt supervisory activity. Task load was not found to be an interactive factor."—*J. W. Russell.*

2128. Koch, Edward G. (U. California, Los Angeles) **Three approaches to organization.** *Harv. bus. Rev.*, 1961, 39(2), 32-43, 160-162.—The sociologists, psychologists, economists, and others who have published books on organizational theory may be divided into 3 groups: those who look upon organizational structures and controls as the means of improving management practices, those who use comparative studies of successful businesses to generate management principles, and those who make greater use of behavior science research findings to construct theories of organization. Publications of each type are summarized with the concept of authority as a focal point. Problems in the areas of human relations, decision making, and delegation of authority

appear to be the major difficulties facing today's managers.—*C. F. X. Youngberg.*

2129. Kornhauser, William, & Hagstrom, Warren O. **Scientists in industry: Conflict and accommodation.** Los Angeles, Calif.: Univer. California Press, 1962. xii, 230 p. \$6.00.—Increased utilization of scientists in bureaucratic organizations creates 2 problems: how to preserve professional autonomy, and how to contribute maximally to the general welfare. The detailed sociological analysis is based on interviews and social research. (14 p. ref.)—*R. Tyson.*

2130. Litwak, E., & Hylton, Lydia F. (U. Michigan) **Interorganizational analysis: A hypothesis on co-ordinating agencies.** *Admin. sci. Quart.*, 1962, 6(4), 395-420.—"Interorganizational analysis suggests the structural requisites for maintaining socially approved conflict while traditional organizational analysis suggests requisites for socially approved states of harmony. A theory of interorganizational co-ordination is presented based on (1) organizational interdependence (2) level of organization awareness (3) standardization of organizational activities, and (4) number of organizations. The power of this theory is illustrated by showing that nine presumably discrete problems of social welfare co-ordination are all variations of these same four factors."—*V. Staadt-Sexton.*

2131. Maier, N. R. F., & Hayes, J. J. (U. Michigan) **Creative management.** New York: Wiley, 1962. vii, 226 p. \$5.95.—Issues growing out of the interaction between man and organization are discussed candidly in this collaborative effort by a psychologist and a manager. Problem-solving conferences are proposed as a way of management whereby each person can serve as a participant in decisions made at the level of his superior and as a conference leader in decisions made at his own level. Answers are provided to issues such as how to involve subordinates in decisions, how to differentiate between decisions that concern facts rather than feelings, and how to resolve the conflict between management goals and personal goals.—*M. York.*

2132. Meltzer, L., & Salter, M. (Cornell U.) **Organizational structure and the performance and job satisfaction of physiologists.** *Amer. sociol. Rev.*, 1962, 27(3), 351-362.—"Mail questionnaires were completed by 75 per cent of all physiological scientists working in organizations in the United States. In an attempt to test some aspects of James Worthy's theory of organizational structure, three sets of variables were interrelated: (a) independent variables, i.e., size of organization, number of supervisory levels, and combinations of these; (b) intervening variables, i.e., freedom, job opportunities, funds, facilities, ability of the scientist, and type of institution—academic, governmental, or industrial; and (c) dependent variables, i.e., productivity and job satisfaction. In general, the theory was not supported."—*L. Berkowitz.*

2133. Meyer, H. H., Walker, W. B., & Litwin, G. H. (General Electric Co.) **Motive patterns and risk preferences associated with entrepreneurship.** *J. abnorm. soc. Psychol.*, 1961, 63, 570-574.—The relationship between n Ach and risk preference of managers was studied. The trends in the results demonstrated that there was a positive relationship

between the 2 variables, but that managers with high and low degree of policy power (entrepreneurship) could not be differentiated.—G. Frank.

2134. Patton, Arch. (McKinsey & Co., Inc.) What is an executive worth? *Harv. bus. Rev.*, 1961, 39(2), 65-73.—A compensation system aims at attracting men who are able to attain company objectives and motivating them to seek greater responsibility in the company. Both objectives are sometimes defeated when some functions are overvalued, the concept of "average" executive is misunderstood, or factors related to company size and industrial differences are not properly evaluated. The decisions which an executive makes or influences, which in turn lead to an increase or decrease in company profits, become a major variable in determining his worth.—C. F. X. Youngberg.

2135. Porter, Albert. (San Jose State Coll.) Effect of organization size on validity of Masculinity-Femininity score. *J. appl. Psychol.*, 1962, 46, 228-229.—A population of 195 pre-1944 male Stanford Graduate School of Business MBAs was analyzed for association between executive success criteria and scores on the Strong Vocational Interest Blank Masculinity-Femininity (SVIB MF) scale, controlling for size of employing organization (large $N=47$, medium $N=105$, and tiny $N=43$). No significant correlations were found between the SVIB MF scores and pay, job interest, or career progress satisfaction. Correlations were significant ($p < .05$) between MF scores and policy level and organization level, but were negative in large organizations and positive in medium and small organizations. The pattern of correlations suggests that masculinity of interests is positively associated with executive success in smaller organizations, inversely in larger organizations; more research is needed to test such a hypothesis and to explore the "meaning" of MF.—*Journal abstract*.

2136. Real, William H. (U. British Columbia) Upward communication in industrial hierarchies. *Hum. Relat.*, 1962, 15(1), 3-15.—A group of 52 superiors and 52 respective subordinates were randomly selected from 3 major industrial organizations and evaluated on 3 measures: accuracy of upward communication, mobility, and trust-influence. Hypotheses were tested concerning the relationship between upward mobility among executives and the accuracy of communication of problem-related information to superiors. In general, the relationship was found to be negative and significant. It is conditioned by the degree of interpersonal trust held by the executives for their superiors, and there is some indication that it is also conditioned by the degree of perceived influence of superiors by subordinates.—W. W. Meissner.

2137. Ritti, Raymond Richard. (Cornell U.) Engineers and managers: A study of engineering organization. *Dissert. Abstr.*, 1961, 21(12), 3845.—*Abstract*.

2138. Schaffer, R., & Woodyatt, P. New horizons for personnel management. *Personnel*, 1962, 39(2), 42-51.—Although there has been a growing awareness that human nature is not an obstacle to organizational efficiency, and a recognition that it is rather a rich source of strength, most companies persist in concentrating on ways of overcoming it. The

authors insist that there is need for a change now and they suggest the manner of making it.—V. Staudt-Sexton.

2139. Watters, A. F. (General Foods Corp.) Management and motivation: Releasing human potential. *Personnel*, 1962, 39(2), 8-16.—The fundamental facts of human nature were briefly summarized and were used to suggest ways in which management could stimulate the release of employees' creative powers. The suggested processes for establishing a more "motivating" work environment were (a) mutual involvement, (b) communication, (c) compensation.—V. Staudt-Sexton.

2140. Williams, Lawrence Kenneth. (U. Michigan) The measurement of risk-taking propensity in an industrial setting. *Dissert. Abstr.*, 1961, 21(12), 3847-3848.—*Abstract*.

ENGINEERING PSYCHOLOGY

2141. Baker, R. C., & Siegel, A. I. An operational evaluation of improved prototype seat cushion assemblies. Wayne, Pa.: Applied Psychological Services, 1957. iv, 32 p.—3 trilock-covered prototype seat cushion assemblies were evaluated through an in-flight test in order to determine the potential of seats for reducing seating discomforts on prolonged flights. 2 of the seat cushions incorporated an air cushioning principle plus seat pulsation; the 3rd also incorporated an air cushioning principle but was static. The data consist of ratings of the comfort of the seats and preference rankings. Comfort ratings and ranking data indicate that 2 of the seat cushion assemblies were statistically significantly superior to the present seat assembly. The superior seats incorporated pulsation and the static air cushion.—P. Federman.

2142. Blair, Wesley C., & Plath, Dean W. (General Dynamics Corp., Groton, Conn.) Submarine control with the combined instrument panel and a contact analog-roadway display. *J. engng. Psychol.*, 1962, 1, 68-81.—3 independent groups of 5 Ss were tested on one of 3 submarine control displays: a combined instrument panel (CIP), a contact analog-roadway (CAR) display with "order" interpretation, and a CAR display with "error" interpretation. Displays were mounted in a submarine simulator programmed for equations of motion of a "SKIPJACK Class (SS(N)585) submarine traveling at 20 knots." Measures of performance were time on course, on depth, and on both simultaneously. CAR displays were found to be inferior to the CIP display. "Order" interpretation was superior to "error" interpretation on the CAR displays.—D. C. Hodge.

2143. Frost, George G. (Aerospace Medical Lab.) An application of a dynamic pilot-model to system design. *USAF ASD tech. Note*, 1961, No. 61-57. 9 p.—Design, evaluation, and integration of controls and displays for advanced flight vehicles present recurrent problems for the human engineer. This report presents a method for solving these on a fast-time analog computer and describes one application. The basic concept of this approach centers about the use of a dynamic model of the pilot which can be instrumented on the computer along with the airframe and flight control dynamics, thus permitting design and evaluation of the total closed loop system during the early design phase.—USAF ASD.

2144. Matoušek, O. (Prague) *Úkola psychologie při konstrukci strojů a strojních zařízení.* [Psychological tasks involved in machine construction.] *Ceskoslov. Psychol.*, 1961, 5, 319-325.—The degree of interrelationship between man and the machine he works with differs qualitatively in various phases of technological development. The demands of the physical equipment of man gradually decrease, while demands on the agility of nervous processes, exactness and cooperation of analysers, attention, reactivity, etc. increase. A research program regarding the solution of the problem of adjusting man to the machine is proposed. Most important principles for machine construction with regard to psychological, physiological, and safety requirements are described. (33 ref., Russian & English summaries)—*V. Břicháček.*

2145. Ornstein, George Norman. (Ohio State U.) *Applications of a technique for the automatic analog determination of human response equation parameters.* *Dissert. Abstr.*, 1961, 21(11), 3533-3534.—*Abstract.*

Displays

2146. Cook, Kenneth G., Beazley, Richard M., & Robinson, John E. (Applied Psychology Corp.) *Aircraft conspicuity and flight attitude information provided by exterior paint patterns.* *J. appl. Psychol.*, 1962, 46, 175-182.—Experiments were conducted to determine the relative conspicuity of aircraft exterior paint patterns, and to investigate whether such paint patterns aided pilots in determining the attitude of the aircraft. The conspicuity studies, using paired comparisons of model airplanes, gave evidence that: (a) amount of red-orange fluorescent paint coverage is positively correlated with conspicuity; (b) high brightness paints should be placed on the upper surfaces of the aircraft and low brightness paints on the lower portions; (c) maximizing brightness contrasts between different parts of the aircraft surfaces does not enhance conspicuity; (d) flight attitudes, backgrounds, lighting conditions, and differences in Ss did not affect conspicuity significantly. The attitude studies in which pilots matched the model airplanes in some 1 of 15 attitudes, with 1 of 15 models mounted on a small display, indicated that the paint patterns used did not aid the pilots in making judgments of aircraft attitude. Differences in backgrounds and lighting conditions did not greatly affect Ss' ability to determine attitude.—*Journal abstract.*

2147. Federman, P. J., & Siegel, A. I. *Aircraft detectability and visibility: V. Detectability of stimuli coated with fluorescent and ordinary paints: A further study.* Wayne, Pa.: Applied Psychological Services, 1961. v, 41 p.—The detectability of various stimuli was investigated to provide information for increasing aircraft detectability by visual means. The results of the experiments, conducted in a field visual range situation, indicated that fluorescent yellow-orange was the most visible under the 3 meteorological (sky background) conditions. The mean threshold data over the 3 meteorological conditions suggested the following hierarchical order of detectability for the 6 stimuli: fluorescent yellow-orange, fluorescent red-orange, white, fluorescent red-orange with a white medial stripe, white with a black medial stripe, and ordinary orange.—*Author abstract.*

2148. Hodge, Milton H., & Pollack, Irwin. (U. Georgia) *Confusion matrix analysis of single and multidimensional auditory displays.* *J. exp. Psychol.*, 1962, 63(2), 129-142.—"Eight experiments were designed to evaluate a model—the constant-ratio rule—of sensory organization. The model was tested by comparing the obtained probabilities of 4×4 and 2×2 confusion matrices with the probabilities predicted from 8×8 matrices. The auditory dimensions of frequency, intensity, and duration were used singly and in combination to form single and multidimensional stimulus ensembles consisting of two, four, or eight tones. Six Ss attempted to identify, one at a time, the stimulus objects of the ensembles. The results indicate: (a) In general, the CRR makes excellent predictions of the response probabilities of the single and multidimensional matrices. The notable exceptions occur when predictions for 2×2 matrices are made from adjacent objects in widely spaced ensembles. (b) The CRR predicts the probabilities of the multidimensional matrices somewhat better than those of the single-dimension ensembles."—*J. Arbit.*

2149. Mackworth, Jane F. (Defence Research Medical Lab., Toronto, Canada) *The effect of display time upon the recall of digits.* *Canad. J. Psychol.*, 1962, 16(1), 48-54.—Messages of 9 or 10 digits in 2 rows were presented either with each digit in succession or all digits simultaneously. Message presentation times of 2.5, 5 and 10 seconds were used. Increasing both the time per digit and the number of digits shown simultaneously improved immediate recall. The block display at $\frac{1}{2}$ -sec/digit was significantly better than the single digit display at 1-sec/digit—a result which could be interpreted in support of decay theory. With display constant, however, the amount recalled increased with time per digit.—*R. S. Davidson.*

2150. Minor, Frank J., & Revesman, Stanley L. (IBM) *Experimental evaluation of binary codes for console display.* *J. appl. Psychol.*, 45(6), 381-387.—"Three binary code schemas were evaluated experimentally in terms of operator coding performance. One of the three code schemas was to be selected for use on a data processing system console display. The criterion for the code evaluation was the operator efficiency measured in terms of speed and accuracy of coding console problems. An independent group of subjects was assigned to each of the three code conditions. One of the three code schemas facilitated a significant time saving of 20-25% as compared to the remaining two code schemas. There were no differences in rate of error between the three code conditions."—*J. W. Russell.*

2151. Newman, Klaus M., & Davis, Anne R. (USN Electronics Lab., San Diego, Calif.) *Non-redundant color, brightness, and flashing rate encoding of geometric symbols on a visual display.* *J. engng. Psychol.*, 1962, 1, 47-67.—The effectiveness of "geometric symbol-only" encoding and "non-redundant symbol-plus-other-dimension(s)" encoding were compared in terms of accuracy and speed for both searching and decoding tasks. Encoding parameters were 36 geometric forms, 2 brightness levels, 3 flashing rates, and 3 colors. Amount of displayed information was held constant. Results for 10 Ss indicated that color encoding leads to shorter response times and fewer errors than other methods.

With the exception of geometric shapes, combination of 2 or 3 levels of 3 encoding dimensions in one condition is detrimental to performance.—D. C. Hodge.

2152. Obermayer, R. W., Swartz, W. F., & Muckler, F. A. (Martin Co.) The interaction of information displays with control system dynamics in continuous tracking. *J. appl. Psychol.*, 1961, 45(6), 369-375.—9 Ss were each seated in a mockup of a fighter-type cockpit where they each moved a control stick to cause movement of a line on the TV-like picture tube. . . . "in no condition of this experiment was the following display found to be superior to the compensatory display. . . . Examination of significant subject interactions with treatments showed deviation in individual cases from the averaged group data."—J. W. Russell.

2153. Promisel, David M. (Johns Hopkins U.) Visual target location as a function of number and kind of competing signals. *J. appl. Psychol.*, 1961, 45(6), 420-427.—Using 20 college students, the influence of hue and shape on ability of operators to correctly describe location of objects, reflected on radar picture tubes, was studied. Variables included number of target signals, values of hue-shape combinations, number of signals, and the distribution of this competition between the hue and shape dimensions. The number of targets had by far the greatest effect on task time. Hue rather than shape is the critical factor. (15 ref.)—J. W. Russell.

2154. Promisel, David Mark. (Johns Hopkins U.) Visual target location as a function of number and kind of competing signals. *Dissert. Abstr.*, 1961, 22(1), 336-337.—Abstract.

2155. Reilly, Raymond E., & Teichner, Warren H. (U. Massachusetts) Effects of shape and degree of structure of the visual field on target detection and location. *J. Opt. Soc. Amer.*, 1961, 52(2), 214-218.—The effects of the degree of structuring and the form of the visual field on target detection and target location were investigated for 3 different search times. 30 undergraduate Ss searched for low-visibility targets on a special screen and recorded the target locations on prepared data sheets. The results suggest that both target detection and location are related in a nonmonotonic fashion to the degree of structure and to the form of the field. The structuring continuum was defined as the division of the search area into 2 or more partitions of equal area. Optima for both measures occurred at the low end of the continuum. Of the 2 forms investigated, performance with square fields was generally superior to that for circular fields. In answer to a questionnaire after the experiment, a majority of Ss reported a preference for searching the square fields. Both target detection and target location varied directly with amount of search time. However, the functions tended to increase rapidly at first and then level off at the longer search times.—Journal abstract.

2156. Robinson, John E., Jr., Cook, Kenneth G., & Zeleny, Charles E. (Applied Psychology Corp.) Pilot judgments of simulated collisions and near misses: A comparison of performance with uncoded and two-tone coded models. *J. appl. Psychol.*, 1961, 45(6), 359-363.—If aircraft are painted according to a visual code to designate front from rear and top from bottom, will this help pilots avoid collisions with other aircraft? "Six experienced

pilots completed a total of 144 training and practice problems and 288 test problems." Assimulated situations involved closed circuit TV were used. The visual coding did not help.—J. W. Russell.

2157. Stirner, F. W., Siegel, A. I., & Baker, R. C. Caution and warning light indicators for naval aircraft: V. An experimental comparison of visual, auditory, and visual-auditory "master" signals. Wayne, Pa.: Applied Psychological Services, 1957. ii, 25 p.—Ignoring tactual stimuli, the following variations of the master indicator concept are possible: a master light signal, a master auditory signal, and a simultaneously presented master light and master auditory signal. The 3 variations were experimentally compared, and the data suggest that the auditory master indicator presentation has better attention-arresting potential than either of the other 2 variations. The implications of this finding for aircraft purposes are discussed.—P. Federman.

2158. Weidenfeller, E. W., Baker, R. A., & Ware, J. R. Effects of knowledge of results (true and false) on vigilance performance. *Percept. mot. Skills*, 1962, 14, 211-215.—4 groups monitored a simple display for a 3-hr. period. 79 Ss were divided into a control group, an irrelevant stimulus (IS) group, a knowledge of results (KR) group, and a "false" knowledge (FKR) group. The signal, presented on a 24-per-hour variable schedule, was a brief interruption of a continuous light. For the KR, FKR, and IS groups a 2nd white light was used to provide knowledge of results, and additional irrelevant stimulation. A comparison of the detection performance showed a significantly higher probability for both knowledge of results groups. No significant difference was obtained between the IS and the control groups or between the KR and FKR groups.—W. H. Guertin.

Controls

2159. Braman, Heather R. (Ed.) Human factors of remote handling in advanced systems. *USAF ASD tech. Rep.*, 1961, No. 61-430. 192 p.—This report compiles the papers presented at the Human Factors of Remote Handling in Advanced Systems Symposium, sponsored by the Aerospace Medical Laboratory in April 1961. Human factors in remote handling as viewed by the psychologist and the engineer are discussed. Problems of operator selection and training are presented and manned and unmanned ground support equipment for nuclear-powered aircraft are reviewed. Space environmental constraints on extra-vehicular space operations are assessed. A representative remote-handling system for space operations is described and a 3-dimensional color television system for remote handling is analyzed and evaluated. Human factors in design of remote-handling equipment are discussed.—USAF ASD.

2160. Siegel, A. I., & Schultz, D. G. An investigation into factors affecting control activation: I. Survey and definition of variables. Wayne, Pa.: Applied Psychological Services, 1962. iii, 20 p.—Factors affecting the speed and accuracy of activating selected aircraft controls were investigated. 6 variables were selected for study: control number, control density, activation sequence, control complexity, link multiplicity, and time criticality. The experimental program, based on this survey, will test the relationship of each factor to control activation

speed and accuracy. Anticipated relationships are presented. The Universal Control Activation Simulator, designed and constructed to meet the requirements of this research, is described.—*P. Federman.*

SIGNS & LEGIBILITY

2161. Hughes, Charles L. (IBM) **Variability of stroke within digits.** *J. appl. Psychol.*, 1961, 45(6), 364-368.—As the demands of the machine on the man increase, how can the man be helped to identify quickly, on sight, numbers from 1 to 10? College students tried to identify 8 variations on each of the 10. "... each digit must be designed on an individual configuration basis taking form, stroke widths, and their combinations into account. Two factors must be considered: a. absolute recognition of the digit as such, b. differentiation (by relative emphasis) of features that suggest similarity (hence ambiguity)." (20 ref.)—*J. W. Russell.*

2162. Štikar, J. (Výzkumný ústav bezpečnosti práce, Prague) **Čitelnost číslic.** [Legibility of numerals.] *Ceskoslov. Psychol.*, 1961, 5, 358-362.—No differences in the reading speed found between Mackworth, Gill, and the Czechoslovak National Standard type of numerals. The Gill half thick type numerals are the most accurate for legibility. (Russian & English summaries)—*V. Břicháček.*

DRIVING, ACCIDENTS, SAFETY

2163. Bureš, Z. (Charles U., Prague) **Úkoly psychologie v bezpečnosti práce.** [The tasks of psychology concerning safety of work.] *Ceskoslov. Psychol.*, 1961, 5, 326-336.—The chief features in the area of the safety of work in Czechoslovakia are: (a) the need to combine practical experience with empirical knowledge in a unified comprehensive system, (b) the requirement that accident and injury prevention be planned with perspective and as a part of the entire complex of design and construction of plants and means of production, (c) the need for a rapid transition from the previously narrow and negatively formulated safety precautions to a positive and broader concept of workers' safety insuring optimal working conditions generally. The following problems of work safety are discussed: ascertaining the causes of accidents, psychological research of personal causes of accidents, safety instruction and training, use of personal safety equipment, and suitable arrangement of the working conditions. (36 ref., Russian & English summaries)—*V. Břicháček.*

2164. Dobbins, D. A., Skordahl, D. M., & Anderson, A. A. **Prediction of vigilance: AASHO Road Test.** *USA PRO OCRD tech. Res. Note*, 1961, No. 119. 30 p.—This report describes the 2nd of 2 studies of vigilance in connection with a road test sponsored by the American Association of State Highway Officials and administered by the Highway Research Board of the National Academy of Sciences. Army drivers operated trucks on experimental highways (November 1958 to November 1960) under conditions conducive to boredom and fatigue—characteristic of many Army monitoring jobs. The primary objective of this study was to determine which, if any, of several well-known psychological domains holds the most promise for prediction of vigilance performance. A total of 39 predictors and 2 reference measures, grouped into 8 predictor clusters and a

single reference cluster, were administered. In general, both reliability and validity coefficients were low. The most promising predictors were the Personality, Personal History, Driver Aptitude, and Perceptual Speed clusters. The Cognitive, Physical, Psychomotor, and Attitudinal clusters were least promising. Measures paralleling more closely the parameters of the criterion task—signal rates, intersignal intervals, sensory modes—might be expected to show greater promise.—*A. J. Drucker.*

2165. Dobbins, D. A., Tiedmann, J. G., & Skordahl, D. M. **Field study of vigilance under highway driving conditions.** *USA PRO OCRD tech. res. Note*, 1961, No. 118. 46 p.—Opportunity for an initial study of vigilance was afforded by a road test sponsored by the American Association of State Highway Officials and administered by the Highway Research Board of the National Academy of Sciences. Army drivers operated trucks from 1958 to 1960 on experimental highways under conditions of monotony and restricted environment characteristic of many Army monitoring jobs. This study, conducting during the 2nd year of the road test, was designed (a) to examine the general level of signal detection of the 42 drivers and determine the nature and extent of any decrement in vigilance over a 7-hour driving shift, and (b) to examine the range and stability of individual differences in signal detection scores. In spite of such inhibitory factors as noise, vibration, long hours, boredom, and fatigue, overall level of signal detection was high and remained high throughout the driving periods (83% of all critical signals were detected). Increased variability in individual vigilance performance was observed in the later driving periods. The specially constructed Vigilance Tester provided psychometric scores consistent enough to justify further research use.—*A. J. Drucker.*

2166. Grunert, Johannes. (Denningerstr. 5, Munich, Germany) **Unfallkeim—Unfalldisposition—Unfall.** [Accident germ—accident disposition—accident.] *Z. exp. angew. Psychol.*, 1961, 8(4), 519-539.—A psychodynamic theory of accidents combines functional, structural, and depth-psychological factors. Acute conflicts may form the germ of an accident. If the ego no longer is able to govern the conflict tension, this germ can develop into accident proneness by reducing perceptual consciousness and environmental contact. Simultaneous aggressive tendencies can lead to spontaneous motoric impulses causing slips leading to accidents.—*W. J. Koppitz.*

2167. Hulthen, Lamek. (Royal Inst. Technology, Stockholm, Sweden) **A note on detection probability and observance in road traffic.** *Bull. Inform. C.I.D.I.T.V.A.*, 1962, No. 9. 8 p.—A theoretical approach to the behavior of an automobile driver in traffic. The probabilities of detecting traffic signs and signals under various conditions are worked out under the theory. The eye is a less efficient detection system than the ear.—*E. L. Borrowman.*

2168. Kronenburger, E. J. (Technology, Inc., Dayton, O.) **Interpersonal aspects of industrial accident and nonaccident employees.** *Engng. industr. Psychol.*, 1960, 2, 57-62.—Leary's Interpersonal Check List was administered to 18 Ss who had had accidents and 35 Ss who had not. There was some tendency for the accident group to express more hostility toward themselves than did the nonaccident

group, but no significant differences at the .05 level or better were found.—C. F. X. Youngberg.

2169. Marcus, Irwin M., Wilson, Wilma; Kraft, Irvin; Swander, Delmar; Southerland, Fred, & Schulhofer, Edith. (Tulane U.) An interdisciplinary approach to accident patterns in children. *Monogr. Soc. Res. Child Developm.*, 1960, 25(2, Whole No. 76). 79 p.—Using the services of psychiatrists, social workers, and psychologists, this investigation compared children from 6 to 10 years of age who had 3 or more accidents with an enuretic group and a symptom free group. 4 aspects were studied—psychological, physical, intrafamily, and behavioral response. The accident child was distinguishable on the first 3, giving evidence of emotional problems in the same frequency as the enuretic; showing more activity before and after birth and being more motor than cognitive in response; and having anxious, insecure and nonassertive parents. (67 ref., appendices.)—J. S. Braun.

2170. Schuster, Donald Herbert. (U. Southern California) The development of attitude scales to predict accident repeater and moving violator drivers. *Dissert. Abstr.*, 1961, 21(12), 3846-3847.—Abstract.

ADVERTISING & CONSUMER PSYCHOLOGY

2171. Britt, Steuart Henderson. *The spenders*. New York: McGraw-Hill, 1960. xiii, 293 p. \$4.95.—A book about the consumer, his actions, reactions, and how he spends his money. It is also about the products he buys, how they are marketed and advertised, and how this affects buying.—E. Y. Beeman.

2172. Emery, F. E. Heuristic models of the marketing process. *Hum. Relat.*, 1962, 15(1), 63-76.—2 models of the marketing process are presented: the 1st concerned with the psychological processes by which a person becomes a customer, the 2nd concerned with the manner in which these processes are initiated and more or less consciously controlled. (19 ref.)—W. W. Meissner.

2173. Finnegan, Eugene J., & Sheuring, John J. (U. Georgia) Consumer preference for sugar levels in ice cream and frozen desserts: II. Emulsifier-stabilizer levels in chocolate ice cream. *Food Technol.*, 1962, 16, 113-116.—Using a constant sugar level (18%) previously established by a similar survey, 4 ice creams were manufactured containing .14%, .24%, .34%, and .44% emulsifier. They were preference tested by 1073 persons in 357 households, using the method of paired comparisons. Data were analyzed by a method which takes into account the indirect as well as the direct comparisons. The .24% product was significantly preferred to all others. No sex differences were found, but people over 60 preferred .34% emulsifier. Stated reasons for preference were "creamier," "smoother," and "chocolate flavor better." Homemakers stated they would not pay 5¢/pt. more for their preferred ice cream.—D. R. Peryam.

2174. Greyser, Stephen A. (Harvard Business School) The case of the befuddled brewers. *Harv. bus. Rev.*, 1961, 39(2), 136-154.—A real-life situation involving the application of theory to advertising strategy is presented. Several approaches to a solution are outlined.—C. F. X. Youngberg.

2175. Harary, F., & Lipstein, B. The dynamics of brand loyalty: A Markovian approach. *Operat. Res.*, 1962, 10(1), 19-40.—"Our purpose is to attempt to apply . . . Markov chains to a . . . study of . . . brand switching and brand loyalty. After summarizing the traditional basic concepts of Markov chains, we introduce concepts for the theory of directed graphs in order to provide a geometric and intuitive point of view. We then demonstrate that the set of all brands of a particular product category can be regarded as a concrete case of an abstract Markov chain. The implications of this approach for marketing strategy are discussed."—M. R. Marks.

2176. Katona, George. (U. Michigan) *The powerful consumer: Psychological studies of the American economy*. New York: McGraw-Hill, 1960. ix, 276 p. \$6.50.—"This book is a product of work done at the Survey Research Center of the University of Michigan." The data was obtained from nation-wide surveys over the period from 1945 to 1959. The book is organized into 4 parts: (a) an introduction; (b) a section on consumer attitudes, changes in attitudes, and their effects; (c) the influence of motives, levels of aspiration, group influences, and rational behavior; and (d) the effects of economic fluctuations, prosperity, inflation, and recession.—E. Y. Beeman.

2177. Krugman, Herbert E. (Ted Bates & Co., Inc., NYC) The learning of consumer preference. *J. Market.*, 1962, 26(2), 31-33.—Hypotheses were tested pertaining to consumer preferences based on repeated product exposures. Photos of 2 sets of packages of washday products were presented tachistoscopically with 5 time-varying exposures to sample groups (N = 60, 30, 27) in 3 geographic areas. Results indicate that repeated exposures to a package can significantly alter the rank order of consumer preference.—P. L. Crawford.

2178. McMurray, Robert N. (McMurray Co., Chicago) The mystique of super-salesmanship. *Harv. bus. Rev.*, 1961, 39(2), 113-122.—"The possessor of an effective sales personality is a habitual 'wooer,' an individual who has a compulsive need to win and hold the affection of others . . . it develops so early in life that for all practical purposes it might as well be inborn." 5 other qualities are needed to supplement the wooing instinct: high energy level, abounding self-confidence, chronic hunger for money, habit of industriousness, and ability to perceive each objection or obstacle to a sale as a challenge.—C. F. X. Youngberg.

2179. Michelsen, Ross; Martin, W. H., & Colson, T. J. (Kansas State U., Manhattan) A consumer preference study on type of vanilla flavoring in ice cream. *Food Technol.*, 1962, 16, 102-104.—A consumer preference study was run on ice creams flavored with pure, artificial, and fortified (mixture of the 2) vanilla extract. 431 persons, recruited through social groups or by an area sample of Manhattan households, tasted the 3 samples and ranked them according to general acceptability. Data were classified according to age, sex, and socioeconomic status and significance was tested by means of a Friedman 2-way analysis of variance. Significant differences were found only with some subgroups. Most preferred the fortified extract; however, people over 70 preferred the pure extract and high socioeconomic

status women preferred imitation. Differences are attributed to the quality of the flavoring material and the intensity of the flavor in the ice cream.—D. R. Peryam.

2180. Thumin, Frederick J. (Washington U.) **What psychologists should know about marketing and advertising research.** *J. Psychol.*, 1962, 53(2), 329-347.—A documental discourse on marketing and advertising research as a profession for psychologists. Consideration is given to (a) the growth of the field and current opportunities, (b) the functions which psychologists perform, (c) desirable and undesirable features of the profession, (d) academic preparation, and (e) the type of individual best suited for this line of work. The author also discusses the moral criticisms which have been raised against psychologists entering the marketing and advertising field.—*Author abstract.*

2181. Tilgner, Damazy J. (Politechnical U., Gdanska, Poland) **Anchored sensory evaluation tests.** *Food Technol.*, 1962, 16, 47-50.—“Quality scoring of food products by sensory means is generally done by reference to mental standards. . . . Accuracy in quality scoring could be much greater if objective standards were available . . . for ready reference in restandardization. . . . it should be the

aim of sensory grading systems to provide objective, easily reproduced, and unvarying reference standards for this purpose.” Procedures are described for establishing and verifying such standards for quality attributes of hot-smoked fish, such as color intensity, gloss, juiciness, and saltiness. An anchored dilution index test is described where reference standards are prepared by adding known quantities of adulterant to a standard food. Results are presented.—D. R. Peryam.

2182. Westfall, Ralph (Northwestern U.) **Psychological factors in predicting product choice.** *J. Market.*, 1962, 26(2), 34-40.—The study was an attempt to identify consumer personalities attracted to convertible, compact, and standard automobiles. 231 car owners in Los Angeles and Chicago were included in the sample studied. Analysis of responses on the Thurstone Temperament Schedule indicate that such characteristics as active, impulsive, stable, and sociable have greatest value as predictors of the type car owned. Individuals scoring high in these areas are most likely buyers of convertible cars—with “activity” being the best predictor of the group. This conclusion must be accepted with caution because of the limitation of sample size and the methodology used.—P. L. Crawford.

BRIEF SUBJECT INDEX

This index supplements, but does not duplicate, the classification of abstracts given in the Table of Contents. It is assumed that the reader will have scanned whatever categories of classification interest him and that he will use this index only for cross references or for subjects that are more specific than the general categories of the classification. When many numbers are encountered under a heading, the reader may simplify his task by matching the numbers found under the two or more headings that specify his particular interest.

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EDITORIAL NOTES

This volume introduces a "Brief Subject Index." With present methods of preparing the annual Subject Index, it is possible to prepare and publish this brief index as a byproduct. The index supplements the classification of abstracts given in the Table of Contents and the headings throughout the issue. In order to limit the number of abstracts referred to under each index heading, the index does not duplicate information given in the classification. For example, abstracts classified under Adolescence are not referred to under that heading in the index. Abstracts classified under other headings, however, but having to do with Adolescence, are referred to under that heading in the index. Thus, the index replaces the cross-reference system formerly employed. In addition, it allows the reader to pinpoint subjects that are more specific than those used to classify the abstracts.

* * *

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* * *

The Center for Programmed Instruction, Inc., 365 West End Avenue, New York 24, New York has begun the quarterly publication of the *Journal of Programmed Instruction* under the editorship of Lincoln F. Hanson. Its purpose is "to achieve the techniques, applications, theories, and methods of programmed instruction as a means for furthering scientific knowledge of the learning process and improving the rational basis of instruction." Annual subscription: \$7.50; foreign, \$8.00.

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Academic Press, 111 Fifth Avenue, New York 3, New York, has begun the bimonthly publication of the *Journal of Verbal Learning and Verbal Behavior* under the editorship of Leo Postman. It will publish "articles dealing with laboratory studies of human learning as well as work in linguistics and related disciplines. . . . Theoretical papers with clear implication for current research are also acceptable." Annual subscription: \$15.00.

GENERAL

2183. Draper C. S. The inertial gyro: An example of basic and applied research. *Amer. Scientist*, 1960, 48, 9-19.—Abstract No. 35: 33 erroneously gave a different year, volume, and pagination than the above.

OBITUARIES

2184. Reuchlin, Maurice. In memoriam: Gaston Viaud. *Psychol. Franc.*, 1962, 7(1), 1-3.—C. J. Adkins.

HISTORY & BIOGRAPHY

2185. Ames, L. B. (Gesell Inst.) Dr. Arnold Gesell, 1880-1961. *Brit. J. educ. Psychol.*, 1962, 32(2), 101-102.—The article describes Gesell's contributions.—B. T. Jensen.

2186. Anon. Alphonse Chapanis. *Rev. Psychol. appl.*, 1961, 11(4), 343-347.—Portrait, brief biography, and 62-item bibliography.—W. W. Wattenberg.

2187. Anon. Georges Friedmann. *Rev. Psychol. appl.*, 1962, 12(1), 49-52.—Portrait and 97-item bibliography.—W. W. Wattenberg.

2188. Anon. John C. Flanagan. *Rev. Psychol. appl.*, 1962, 12(2), 135-138.—Portrait, biographical note, and 57-item bibliography.—W. W. Wattenberg.

2189. Burt, C. (9 Elsworthy Road, London, England) Galton's contribution to psychology. *Bull. Brit. Psychol. Soc.*, 1961, 45, 10-21.—A summary and evaluation of Galton's work and theoretical approach.—C. C. Kiernan.

2190. Fortmann, H. M. M. De godsdienstpsychologie van Jung. [The religious psychology of Jung.] *Gauein*, 1962, 10(5), 265-274.—Jung's psychology is actually a religious psychology, since no psychologist before or after him has concerned himself with religion as intensely as he did. The projection theory is considered the core of his doctrine, some basic principles of which are the subconscious, the archetypes, the symbol, and the self.—J. A. Lücker.

2191. Lennhoff, F. G. (Shotton Hall, Harmer Hill, Shrewsbury, England) Einige persönliche Erinnerungen an Alfred Adler. [Some personal recollections about Alfred Adler.] *Heilpädagog. Werkbl.*, 1962, 31(3), 98-99.—In connection with the 25th anniversary of Adler's death, the author describes his own encounters with Adler, observations on some of his habits, and his ways of meeting people. He illustrates how Adler's manners expressed his ideas, especially his acceptance of others, including colleagues, patients, children, or readers, as codiscoverers and partners.—D. F. Mindlin.

2192. Mátrai, László. (U. Budapest, Hungary) Henricus Regius (Le Roy) a tudományos lélektan úttörője. [Henricus Regius (Le Roy), the pioneer of scientific psychology.] *Psichol. Tanulmányok*, 1958, 1, 8-20.—The alliance between psychology and

philosophy became problematic in the 17th century at the time of the general acceptance of Descartes' system of philosophy. The novel trends in psychology were opposed to the idealistic principles of the Cartesian dualistic system of philosophy. Henricus Regius, professor of medicine at Utrecht University, pointed to and later eliminated the inner contradiction which existed between Descartes' materialistic physics and idealistic philosophy. His methodology and objective case presentation paved the way for the development of scientific psychology. (Portrait, Russian & English summaries)—*E. Friedman*.

2193. Skard, Åse Gruda. (U. Oslo) Seks som gjekk bort. [Six who are departed.] *Norsk pedagog. Tidsskr.*, 1962, 46(1), 1-5.—The scientific contributions of 6 recently deceased psychologists—Watson, Gesell, Goodenough, Harold Jones, Jung, and Margaret Curti—are briefly sketched.—*L. Goldberger*.

2194. Surányi, Gábor. Vlagymir Mihajlovics Bechterew. *Pszichol., Tannulmányok*, 1958, 1, 21-25.—On the occasion of the 100th anniversary of Bechterew's birth a description of his scientific career and the results of his psychological research work are presented. (Russian & English summaries)—*E. Friedman*.

2195. Thomas, Milton H. (Ed.) (Princeton) John Dewey: A centennial bibliography. Chicago, Ill.: Univer. Chicago Press, 1962. xiii, 370 p. \$6.50.—Dewey's writings from 1882 to 1960 are listed year by year in 153 pages; the table of contents for each book is given, and all items have brief comments concerning contents and circumstances of publication, e.g., talk, book review, critique, contributed chapter or introduction, and reprintings. A 2nd section of 138 pages consists of an alphabetically arranged bibliography of writings about Dewey, including replies to and analyses of, his philosophical and persuasive efforts. There is a 71 page, double-column index which is cross referenced to the 2 major sections of the book. Finally, there is a brief chronology of Dewey and a "compiler's note." Neither Dewey's writings nor the writings about him are numbered.—*R. A. Littman*.

2196. Tramer, F. (Brünn/CSR, Bratislavská 39/II) Friedrich Nietzsche und Sigmund Freud. [Friedrich Nietzsche and Sigmund Freud.] *Jb. Psychol. Psychother. med. Anthropol.*, 1960, 7(3-4), 325-350.—A study of the various writings of Nietzsche shows that one can find there a definite indication of the thought of the unconscious, guilt feeling, and the concept of conscience. It appears that the philosophical considerations of Nietzsche were picked up by Freud who then continued working on them and who incorporated them into his scientific approach.—*V. J. Bilioukas*.

2197. Valett, R. E. (U. Canterbury, New Zealand) Jung's effect on psychology. *Bull. Brit. Psychol. Soc.*, 1962, 46, 58-66.—The article represents an attempt to outline some of the main possibilities for research and clinical practice offered by analytic psychology.—*C. C. Kiernan*.

2198. Von Bracken, E. (Hausen Post Oberkin über Kirn/Nahe, Germany) Zum Problem einer Geschichte der Idee der Persönlichkeit. [On the problem of the history of the idea of personality.] *Psychol. Beitr.*, 1962, 7(1), 131-146.—4 stages of man's Self-understanding in the history of western

thinking are mentioned: the anthropological period of Greek philosophy, Descartes' concept of the "I," Goethe's and Schleiermacher's concept of personality, the concrete historical existence of man as a "single" man, and the personality research in psychology. The author attempts to find significant forms of the idea of man in various epochs in order to understand the history of the sublimation of human self-understanding in the idea of personality. (English & French summaries)—*H. J. Priester*.

2199. Wallin, J. E. W. (Lyndalia, Del.) Reminiscences from pioneering days in psychology, with a few personality portraits. *J. gen. Psychol.*, 1962, 67, 121-140.—A record of pioneering explorations in the fields of psychology, philosophy, education, and mental pathology on the undergraduate, graduate, and postdoctoral levels at Augustana, Yale, Clark, Michigan, Princeton, East Stroudsburg Training School, the Training School at Vineland, and the State Village for Epileptics in New Jersey. The record documents the experiences that eventually led the writer to adopt clinical psychology and the rehabilitation of handicapped children (especially mental retardates) by psychoeducational services as a life career. Personality delineations are made of the author's outstanding professional associates: Edward Fry Bartholomew, Edward W. Scripture, George Trumbull Ladd, G. Stanley Hall, Robert M. Wenley, J. Mark Baldwin, Woodrow Wilson, and others. The disruption of the Yale department of philosophy in 1901 is briefly chronicled.—*Author abstract*.

THEORY & SYSTEMS

2200. Alvim, Francisco. Troubles de l'identification et image corporelle. [Difficulties in identification and body image.] *Rev. Franc. Psychanal.*, 1962, 26(1), 5-116.—From his clinical practice, the author seeks a unitary theory underlying medicine, neurology, and psychoanalysis. Phenomenology, clinical examples, genesis and development of body image, structure, economy, and metapsychology of body image are presented toward this end.—*G. Rubin-Rabson*.

2201. Arian, E. La coscienza e il secondo sistema di segnalazione. [Conscience and the secondary signal system.] *Riv. Psicol. soc.*, 1961, 28(3-4), 263-275.—Pavlov's and recent neurophysiological findings are related to complex verbal and higher processes.—*L. L'Abate*.

2202. Blalock, H. M., Jr. Spuriousness versus intervening variables: The problem of temporal sequences. *Soc. Forces*, 1962, 40(4), 330-336.—A method is described and exemplified for making causal inferences when temporal sequences are in doubt. Required are linear relationships and "the assumption that variables not included in the causal system are operating in such a manner as not to disturb the patterns of intercorrelations." The method does not require the assumptions that all relevant variables have been controlled or that measurement error is lacking.—*A. R. Howard*.

2203. Bolsi, D., & Torre, M. Coscienza individuale e coscienza sociale: Aspetti psicopatologici. [Individual and social conscience: Psychopathological aspects.] *Riv. Psicol. soc.*, 1961, 28(3-4), 223-233.—The theories of Janet and Piaget are discussed from the viewpoint of their relevance to psychopathological aspects of conscience.—*L. L'Abate*.

2204. **Burt, Cyril.** (University Coll. London, England) **The concept of consciousness.** *Brit. J. Psychol.*, 1962, 53(3), 229-242.—The object of the following paper is to criticize the current practice which takes behaviour rather than consciousness to be the defining characteristic of psychology. It is argued that consciousness must be regarded as a generic term covering (a) certain specific relations (e.g., intuitive awareness), and (b) certain specific contents (e.g., sense-data, mental images, feelings, etc.). Both relations and contents are directly given; both are unique phenomena of sufficient importance, practically as well as theoretically, to deserve systematic study in their own right. The methods available for studying them necessarily include introspection; and this, it is contended, is as valid as any other mode of observation. Detailed instances are given, showing how the neglect of introspective procedures leads to descriptions of human behaviour which are not only incomplete but frequently misleading.—*Journal abstract.*

2205. **Gladin, L. L.** (Probation Dept., San Diego County, Calif.) **Toward a unified psychology.** *Psychol. Rec.*, 1961, 11, 405-421.—“The present paper has been concerned with a series of issues having to do with the possible establishment of a metascience addressed to the special problems of a unique science, psychology. Under the assumption that psychology is not a physical science, dualism was advanced as the forte of its uniqueness and supported on the grounds of its inevitability in a science which has to do with an organismic domain whose subjective core has persisted in remaining significant. The communication process was discussed at length in terms of its implications for the sciences in general and psychology in particular. The nature and function of knowledge was considered as it bears on psychology's metascience and necessary definition, and with regard to the human's task of affiliation with his animate and inanimate surround.”—*P. J. Seidel.*

2206. **Guilford, J. P.** **An informational view of mind.** *J. psychol. Res., Madras*, 1962, 6(1), 25-34.—“Organism is an inform-processing agent rather than a passive and touch-and-go mechanism.” The structure-of-intellect model of mind is a 3-dimensional, morphological model in which 3 varieties of intersecting categories are represented. The abilities differ according to perceptual, psychological, and content categories. This model defines the traditional concepts in a better way.—*U. Pareek.*

2207. **Kardos, Lajos.** **Grundfragen der Psychologie und die Forschungen Pawlows.** [The basic questions of psychology and Pavlov's research.] Budapest, Hungary: Akademiai Kiado, 1962. 396 p.—A presentation of Pavlov's research and its implications for a modern “dialectically-materialistic” psychology. The author systematically applies Pavlov's research and theoretical principles to human psychology. A broad exposition of Pavlovian concepts of higher nervous activity is followed by an application of these concepts to perception, memory, thinking, development of speech, and emotion and will.—*J. B. Thompson.*

2208. **Kors, Pieter C.** (Four Winds, Katonah, N. Y.) **The organo-dynamism theory of Henry Ey.** *J. nerv. ment. Dis.*, 1962, 134(6), 566-571.—The advantages of Henry Ey's organo-dynamism theory over the theories of Kraepelin and Bleuler are

discussed. Ey's theory integrates the thinking of Freud, Janet, and Hughlings Jackson.—*N. H. Pronko.*

2209. **Lüscher, Max.** (St. Jakobstr. 81, Basel, Switzerland) **Die Methode der strukturellen Funktionspsychologie.** [The method of structural functional psychology.] *Heilpädagog. Werkbl.*, 1962, 31(2), 65-69.—This is said to be the 1st report of a new theoretical model of personality. It is based on the “functional psychology” theory started 20 years ago in Switzerland by Paul Häberlin, and attempts to integrate concepts of Wundt with those of Karen Horney, also incorporating some ideas of other Freudians and neo-Freudians. Lüscher calls his version: “structural functional psychology.” He utilizes 3 “logical” categories for his 3-dimensional model: “direction,” “position,” and “function” which are represented geometrically in the form of a cube. “Direction” is defined along the dimension of self-directed vs. other-directed; “position” ranges from self-determined to determined (or influenced) by others; “function” is the dimension of affective values, going from negative to positive. There is discussion of interdependence and compensation of functions in this model of personality structure. At the center of the cube the theory provides for “self-regulation.” The author states that this model provides laws by which behavior and its motivation can be accurately predicted.—*D. F. Mindlin.*

2210. **Marek, J.** **Percezione sociale e attribuzione di significato.** [Social perception and attribution of meaning.] *Riv. Psicol. soc.*, 1961, 28(3-4), 239-253.—Experiments on influence of social context upon individual perceptions and the contribution of individual perception upon social context are related to the thinking of Wertheimer and Heider.—*L. L'Abate.*

2211. **Sokolov, E. N.** **Vospriatie i uslovnyy reflex.** [Perception and the conditioned reflex.] Moscow, USSR: Publishing House Moscow Univer., 1958. 333 p.—The author presents in this book a selection of the studies devoted to an investigation of the reflex bases of the perceptual process from the point of view of Pavlov's theory of the conditioned reflex. The studies, undertaken in the period 1952-57 and reported in this book, are devoted, in the main, to the interrelations of the orienting, adaptive, and defensive reflexes which participate in the actualization and regulation of the sensory processes.—*I. D. London.*

2212. **Van Luijk, H.** **Het statuut van de godsdienstpsychologie.** [The statute of religious psychology.] *Gawein*, 1962, 10(5), 236-264.—An effort is made to outline the methodological statute, strictly within the limits of direct psychological evaluation, of the religious symptoms revealed to religious persons. The thesis is presented that only the religious psychologist can study religious psychology to its fullest extent and with complete awareness of the validity of its results. Answers are sought for 3 leading questions: what exactly are religious symptoms for the psychologist; what is the significance of a theory explaining the psychological meaning of these symptoms; and what bearing does this explanation have on theology.—*J. A. Lücker.*

2213. **Wann, T. W., & Walker, D. E.** (Rice U.) **Whittaker's “postulates of impotence” and theory in psychology.** *Psychol. Rec.*, 1961, 11, 383-393.—“In understanding the place of theory in psychology, it is strategically important for psychologists to accept

or reject two 'postulates of impotence' (Whittaker). The postulate of conceptual impotence forces us to recognize the arbitrary nature of our psychological terms and the irreducible uncertainty as to their referents. The postulate of operational impotence maintains that not only does the relative nature of our concepts render us impotent, but that the tools of investigation, be they observation, experimentation, or instrumentation, also are confounding our indices of a real world." Consideration of these is discussed as logically prior to the current arguments concerning the relative merits of the summary, heuristic, or formalistic view of theory in science.—R. J. Seidel.

2214. Wegeler, A. (Otto-Bauer-Gasse 5, Vienna, Austria) *Die Personalisation*. [Becoming a person.] *Jb. Psychol. Psychother. med. Anthropol.*, 1960, 7(3-4), 217-227.—This article represents the principle ideas of the Vienna Circle for Depth Psychology. The concept of person is discussed from 2 standpoints: as a static philosophical concept and as a psychological concept which includes the process of becoming. The becoming includes a continuous balance of tension between the individual and the environment. In order to become a person, one must "transcend" the self or oneself, accept the socialization, and still maintain his freedom. The most recent ideas on the topic by various philosophers and existentialists are reviewed and the references include 28 publications.—V. J. Bieliauskas.

PHILOSOPHY

2215. Christian, P. (Heidelberg, Germany) *Zur Phänomenologie des leiblichen Daseins*. [On the phenomenology of the bodily existence.] *Jb. Psychol. Psychother. med. Anthropol.*, 1960, 7(1-2), 2-9.—The bodily existence is a mode of human existence, and as such it is taking part in the dignity, uniqueness, and singularity characteristic of the features of a person. Existentialists including philosophers, psychiatrists, and psychologists such as: Merleau-Ponty, Sartre, G. Marcel, Buytendijk, V. Gebattel, E. Strauss, Zutt, and Plügge have been trying to develop a phenomenology of the bodily existence. This article summarizes and evaluates the ideas of the above authors and emphasizes the importance of proper understanding of human corporeal existence, its meaning, and its value-relationship for the study and understanding of psychological processes.—V. J. Bieliauskas.

2216. Delgado, R. R., & Delgado, J. M. R. (Yale U.) *An objective approach to measurement of behavior*. *Phil. Sci.*, 1962, 29(3), 253-268.—The behavior of the observed system always involves the behavior of the observing system. Systematic principles for defining measurement and the units of behavior are laid down, such that description of behavior in terms of its "individual," "social," "systematic," and "role" units can be the subject of logico-mathematical treatment.—M. Turner.

2217. Ledermann, E. K. (Marlborough Day Hosp., London, England) *Existentialism and psychiatry*. *Comment on the article by Frank Fish*. *J. ment. Sci.*, 1962, 108 (Whole No. 455), 525-527.—Validity of existential philosophy for psychiatry is defended by reference to key ideas in the writings of Jaspers and emphases in Binswanger.—W. L. Wilkins.

2218. Leibbrand, Werner. (U. Munich) *Die Leib-Seele-Antinomie in der Medizingeschichte*

des Abendlandes. [The opposition of body and mind in the history of western medicine.] *Prax. Psychother.*, 1962, 7(3), 90-104.—A brief survey of the mind-body problem in western philosophical and religious thought from Pythagoras through Hildegard of Bingen to contemporary theorists which was the opening address at the 12th Lindau Psychotherapy Week by the Director of the Institute for the History of Medicine in Munich.—W. Swartley.

2219. Myers, C. M. (Northern Illinois U.) *Perceptual events, states, and processes*. *Phil. Sci.*, 1962, 29(3), 285-291.—"One who observes a perceiver knows the perceiver's perception in a categorically different way than the perceiver knows it. From this it can be seen that perceptual events, states, and processes have both a physical aspect and an epistemological aspect. Any attempt to reduce one of these aspects to the other would involve a category mistake."—M. Turner.

2220. Mourélos, Georges. *L'épistémologie positive et la critique meyrsonienne*. [Logical positivism and Meyerson's critique.] Paris, France: Presses Universitaires France, 1962. 230 p. NF 18.—An account of the progress of French thought in the domain of the philosophy of science that attempts to highlight some of the major themes of this thought as they exist in contemporary epistemology. It traces the development of scientific rationalism from Descartes through d'Alembert and the positivism of Auguste Comte, criticizing the opposing philosophy of Émile Meyerson with the help of the applied rationalism of Gaston Bachelard.—G. H. Mowbray.

2221. Shelly, M. W. (Office Naval Research) *There are many sciences of man*. *Percept. mot. Skills*, 1962, 14(1), 97-98.—The author's position is that there are many sciences of man because prediction is not the only criterion used to admit something as belonging to a science of man. These sciences of man will remain nonequivalent at least as long as they lack a common formal language. The question of the truth of any single science of man, should a single one emerge, remains, however, as an inquiry of a possibly nescient tomorrow.—W. H. Guertin.

STATISTICS

2222. Elston, R. C., & Grizzle, J. E. *Estimation of time-response curves and their confidence bands*. *Biometrics*, 1962, 18(2), 148-159.—The longitudinal study of Ss is complicated because of the correlation between the responses at different time points. Confidence bands for the growth curve, and its parameters, can still be obtained by modifying well-known methods. A multivariate method and 2 univariate methods are examined and compared analytically by using an example of the growth of the Ramus bone in boys.—R. L. McCornack.

2223. Harris, Chester W. (U. Wisconsin) *Some problems in the description of change*. *Educ. psychol. Measmt.*, 1962, 22(2), 303-319.—5 methods of measuring change are listed and reduced to 3 different types. 4 methods of analysis of change are described: (a) factoring of the interrelationships, (b) canonical factor analysis of the supermatrix, (c) canonical analysis of the supermatrix, and (d) an interbattery method of analysis. The derivation of the various methods of analysis is shown, and the usefulness of each method is discussed.—W. Coleman.

2224. Holtzman, Wayne H. (U. Texas) **Meth-
odological issues in P technique.** *Psychol. Bull.*, 1962, 59(3), 248-256.—The P technique is a multiple time series in which observations are taken in a definite time series and usually consists of measures which are not independent. This lack of independence creates statistical problems which are examined. Much work is needed on the fundamental theory of analysis of multiple time series.—W. J. Meyer.

2225. Leiderman, P. Herbert, & Shapiro, David. (Harvard Medical School) **Application of a time series statistic to physiology and psychology.** *Science*, 1962, 138(Whole No. 3537), 141-142.—A statistic describing variability for continuously collected time-ordered data with changing mean level is presented. The Mean Square Successive Difference, developed by von Neumann, was employed in the analysis of basal levels of galvanic skin potential recorded for 40-minute periods.—*Journal abstract.*

2226. Rimoldi, H. J. A., & Haley, John V. (Loyola U., Chicago) **Determining significance levels in pattern analysis.** *Psychol. Rep.*, 1962, 10(2), 500.—The method of Pattern Analysis and indexes of agreement previously developed by the authors are applied to results from experts and junior and senior medical students on a Test of Diagnostic Skills.—B. J. House.

2227. Shepard, Roger N. (Bell Telephone Lab.) **The analysis of proximities: Multidimensional scaling with an unknown distance function. Part II.** *Psychometrika*, 1962, 27(3), 219-246.—The 1st in the present series of 2 papers described a computer program for multidimensional scaling on the basis of essentially nonmetric data. This 2nd paper reports the results of 2 kinds of test applications of that program. The 1st application is to artificial data generated by monotonically transforming the interpoint distances in a known spatial configuration. The purpose is to show that the recovery of the original metric configuration does not depend upon the particular transformation used. The 2nd application is to measures of interstimulus similarity and confusability obtained from some actual psychological experiments.—*Journal abstract.*

2228. Spicer, C. C. **Some new closed sequential designs for clinical trials.** *Biometrics*, 1962, 18(2), 203-211.—Dichotomies such as "cured" or "not cured" may be used to compare 2 treatments using a new class of 2-decision closed sequential trials. Only trials in which one treatment is superior are examined. The properties of such designs were studied using a computer for exact calculations.—R. L. McCornack.

Experimental Design

2229. Alimena, Benjamin S. (Manhattan Coll.) **A method of determining unbiased distribution in the Latin-square.** *Psychometrika*, 1962, 27(3), 315-318.—The paper describes a method of constructing Latin-square designs in which treatment sequences are unbiased with regard to serial order as well as position of treatment. The procedure is useful for those Latin squares in which the number of cells in each column (or row) is an even number, which when written in ascending and descending series, contain corresponding ordered numbers prime to each other. Such numbers are 2, 4, 6, 10, 12, 16, 18, 22, 28, 30, 36, etc.—*Journal abstract.*

2230. Fisher, Seymour. (National Inst. Mental Health, Bethesda, Md.) **Use of chi-square in simple crossover designs.** *J. ment. Sci.*, 1962, 108(Whole No. 455) 406-410.—Ignoring the correlation within patients who are exposed to 2 different treatments in a crossover design may obscure valid differences in outcome. Chi-square analysis may be appropriate but must be based on independent observations.—W. L. Wilkins.

2231. Tikhomirov, O. K. (Moscow State U., USSR) **Issledovanie optimal'nykh sposobov proverki gipotez v norme i patologii: Soobshchenie IV. Zavisimost' optimal'noi posledovatel'nosti prob ot apriornoi veroiatnosti gipotez.** [Optimal procedures for testing hypotheses in normal and pathological cases: Communication IV. Dependence of optimal sequence of tests upon the expected probability of hypotheses.] *Dokl. Akad. Pedag. Nauk RSFSR*, 1962, No. 1, 73-76.—The task was to recognize 4 letters of Russian alphabet reproduced with checkers on a board of 25 cells. The letters were presented under conditions of equal and different probability of occurrence. It was established that "the optimal sequence of tests in relation to the cells of the square depends upon the expected (a priori) probability of hypotheses about the unknown figures."—A. Cuk.

Formulas & Calculations

2232. Harris, Chester W. (U. Wisconsin) **Some Rao-Guttman relationships.** *Psychometrika*, 1962, 27(3), 247-264.—An examination of the determinantal equation associated with Rao's canonical factors suggest that Guttman's best lower bound for the number of common factors corresponds to the number of positive canonical correlations when squared multiple correlations are used as the initial estimates of communality. When these initial communality estimates are used, solving Rao's determinantal equation (at the first stage) permits expressing several matrices as functions of factors that differ only in the scale of their columns; these matrices include the correlation matrix with units in the diagonal, the correlation matrix with squared multiple correlations as communality estimates, Guttman's image covariance matrix, and Guttman's antiimage covariance matrix. Further, the factor scores associated with these factors can be shown to be either identical or simply related by a scale change. Implications for practice are discussed, and a computing scheme which would lead to an exhaustive analysis of the data with several optional outputs is outlined.—*Journal abstract.*

2233. Kincaid, W. M. **The combination of 2 X m contingency tables.** *Biometrics*, 1962, 18(2), 224-228.—Data consisting of proportions of visual stimuli detected out of a fixed number presented at each of several intensities during each of several experimental sessions can be represented as a set of contingency tables. These contingency tables may be combined if the probability of detection did not differ for the several sessions. A method is proposed and applied.—R. L. McCornack.

2234. Lorr, M. (Veterans Benefits Off., Washington, D. C.) **Relations between the intraclass correlation and the Kuder-Richardson reliability formulas.** *J. clin. Psychol.*, 1960, 16(4), 447-450.—"The Kuder-Richardson reliability formulas #20 and

#21 have been shown to be identical to several forms of the intraclass correlation coefficient. Simple computational formulas for dichotomous and continuous variables involving only sums and sums of squares were presented, and applied on several examples. The role and effects of observer (item) variance in the K-R formulas has been highlighted."—*V. J. Bieliauskas.*

Factor Analysis

2235. **Cliff, Norman.** (U. Southern California) **Analytic rotation to a functional relationship.** *Psychometrika*, 1962, 27(3), 283-296.—It is suggested that a number of theoretical models for non-test data can be tested by factor analysis. A traditional method for transforming principal-axis factor solutions is used as an aid in making such tests; a modification of this method is suggested. Means of using all of the information in a model for the purpose of determining the transformation of the arbitrary factor solution are presented, and an illustrative example is given.—*Journal abstract.*

2236. **Dingman, Harvey F., & McIntyre, R. B.** (Pacific State Hosp.) **Determining weights for composite ratings by factor analysis.** *Psychol. Rep.*, 1962, 10(2), 475-480.—"A general formula for obtaining weighted composites of ratings which can use different types of information was reviewed. Its applicability in situations where unitary evaluation criteria are not appropriate was presented in reference to supervisory ratings of employees in a mental hospital. The general utility of the procedure was discussed."—*B. J. House.*

2237. **Ross, John.** (U. Western Australia) **Informational coverage and correlational analysis.** *Psychometrika*, 1962, 27(3), 297-306.—The question "How much does a set of variables tell us?" is formulated in terms of information measures, and a set of formulas is established which allows appropriate information measures to be derived from correlations. Particular attention is given to the question in the context of factor analysis and to formulas involving the latent roots of correlation matrices.—*Journal abstract.*

2238. **Thompson, John W.** (University Coll., N. Staffordshire, England) **Meaningful and unmeaningful rotation of factors.** *Psychol. Bull.*, 1962, 59(3), 211-223.—Although electronics will make undisputable unique solutions possible, there still will be room for judgmental and objective methods. Insufficient regard is paid to the distribution and size of loadings within individual factors. Several concepts are examined which might lead to greater discrimination in the analysis of different types of data and prove useful for factor rotation. The technique of rotation employed should depend on the nature of the data.—*W. J. Meyer.*

GENERAL BOOKS & REFERENCE WORKS

2239. **Dyal, James A.** (Texas Christian U.) **Readings in psychology: Understanding human behavior.** New York: McGraw-Hill, 1962. x, 444 p.—The 56 selections, some abridged, emphasizing human behavior, are grouped into 13 chapters covering the conventional introductory topics. Within chapters, selections are grouped under biological, psychological, and sociocultural factors. 19 selections are from books; 13 selections from pre-1950 publications,

and 3 selections from post-1959 sources. Original references omitted.—*R. S. Harper.*

2240. **Kostiuk, G. S. (Ed.)** **Pitannia psikhologii.** [Problems of psychology.] Kiev, USSR: Radians'ka Shkola, 1959. 288 p.—This is Volume 10 of *Naukovi zapiski* [Scientific notes], published by the Research Institute of Psychology under the auspices of the Ukrainian Ministry of Education. It consists of reports of experiments on individual differences in the interaction of the 2 signal systems in: (a) formation of motor habits, (b) transition from a slower to a faster work tempo, and (c) functioning of automatized motor habits while S is simultaneously engaged in unrelated mental activity. (Text in Ukrainian with Russian summary)—*I. D. London.*

2241. **Levitov, N. D.** **Detskaia i pedagogicheskaia psikhologiya.** [Child and pedagogical psychology.] Moscow, USSR: Uchpedgiz, 1958. 323 p.—This is an introductory text for use in pedagogical institutes.—*I. D. London.*

2242. **Rosenblith, Judy F., & Allinsmith, Wesley. (Eds.)** **The causes of behavior: Readings in child development and educational psychology.** Boston, Mass.: Allyn & Bacon, 1962. xii, 514 p. \$6.50.—80 selections are organized under 11 sections representing various determinants of behavior. Introductions to each section contain brief descriptions of the articles within and suggest additional readings. The selections represent a wide diversity of theoretical positions and systems of psychology.—*W. L. Faust.*

2243. **Sells, S. B.** **Essentials of psychology.** New York: Ronald, 1962. xiv, 513 p. \$6.50.—A textbook designed for the introductory course in psychology with particular emphasis on the "idea that psychology is the science which is most intimately concerned with the behavior of man." The material covered is organized into 4 parts: Part I, "General Orientation" ("The Science of Psychology"); Part II, "General Processes of Behavior" ("The Learning Process," "Receptor Process," "Perception," "Motivation of Behavior," "Emotions, Frustration, and Stress," and "Adjustment and Self-Defense"); Part III, "Individuality" ("Abilities and Intelligence," "Personality," and "Measurement of Personality"); and Part IV, "Group Processes" ("Formation and functioning of Natural Groups," "Dimensions of Groups," and "Group Operation in Industry").—*M. J. Wayner, Jr.*

ORGANIZATIONS

PROFESSIONAL PROBLEMS

2244. **Ammons, C. H., & Ammons, R. B.** (Montana State U.) **Permanent or temporary journals: PR and PMS become stable.** *Psychol. Rep.*, 1962, 10(2), 537.—"Much recent printing of scholarly material in psychology has been on papers which deteriorate rapidly, often discoloring and becoming brittle in less than a hundred years. Starting with their 1962 volumes, *Psychological Reports* and *Perceptual and Motor Skills*, as well as all reprints from them, are being printed on a new acid-free paper which should hold up in use for hundreds of years."—*B. J. House.*

2245. **Jahoda, M.** (Brunel Coll., Acton, England) **The establishment of a new psychology department.** *Bull. Brit. Psychol. Soc.*, 1962, 48, 25-29.—

The author discusses the basic considerations which have been taken into account.—C. C. Kiernan.

2246. **Pepinsky, Harold B., & Borow, Henry.** *Research frontier.* *J. counsel. Psychol.*, 1961, 8(4), 363-367.—A discussion of psychological investigation of religious questions with some examples of proposed research.—E. R. Oetting.

Psychological Personnel

2247. **Babchuk, Nicholas, & Bates, Alan P.** *Professor or producer: The two faces of academic man.* *Soc. Forces*, 1962, 40(4), 341-348.—The publications, current institutional affiliation, and professional identification of 262 sociologists reveal that the latter belong to "two distinct professional communities." The community of disciplinary specialists is associated with high productivity, membership in the American Sociological Association, and affiliation with a major university. The community of college teaching is associated with lower productivity and Association membership and affiliation with 4-year colleges.—A. R. Howard.

2248. **Drenth, P. J. D.** *De volwassenheid van de psychologie in het geding.* [The maturity of psychology is questioned.] *Mens Onderneming*, 1962, 16(4), 213-221.—Da Silva's opinion (see 36: 5AK43D) concerning the psychologist's immaturity is commented upon. The possible integration of the professional psychologist in an industrial setting and advantage of psychological schooling for many non-psychological functions are stressed.—J. A. Lückner.

2249. **Mensch, I. N.** (U. California, Los Angeles) *Psychologists in medical student selection in the U.S.A.* *Bull. Brit. Psychol. Soc.*, 1962, 47, 12-16.—A brief review of the position, tasks, and results of psychological testing in this area. (26 ref.)—C. C. Kiernan.

2250. **Mill, C. R.** (Dept. Mental Hygiene & Hosp., Richmond, Va.) *Interprofessional awareness of roles.* *J. clin. Psychol.*, 1960, 16(4), 411-413.—"In this study job descriptions given by employees in five hospital professions were rated and compared. The results suggest that psychology and psychiatric social work are understood better than the other professions. The jobs of the physicians and nurses are least understood. Psychologists and social workers also appear to have the best understanding of the other professions, while the physicians show the least understanding of their co-workers."—V. J. Bieliasukas.

Training in Psychology

2251. **Audley, R. J.** (University Coll., U. London) *Mathematical models in psychological investigations.* *Bull. Brit. Psychol. Soc.*, 1962, 46, 29-33.—It is argued that since one is prepared to give extensive undergraduate training in mathematical techniques for the analysis of experiments, some introduction to similar techniques in theory construction should also be provided.—C. C. Kiernan.

2252. **Felix, Robert H.** (National Inst. Mental Health) *The psychiatric training of the medical student and the psychiatrist.* *Bull. Menninger Clin.*, 1961, 25(5), 213-224.—Developments in psychiatric training during the past decade include a greater emphasis upon research and upon training in the behavioral sciences, and a move toward integrating psychoanalysis into the framework of a university or medical school.—W. A. Varvel.

2253. **Fraser, Elizabeth D.** (U. Aberdeen) *The teaching of statistics to psychology students.* *Bull. Brit. Psychol. Soc.*, 1962, 46, 11-16.—The author suggests that one difficulty in teaching statistics is the reluctance of students to do mathematics. She claims that this reluctance may be overcome through the performance and analysis by the students of experiments which they themselves have devised.—C. C. Kiernan.

2254. **Gathercole, C. E., Colwell, J. J. K., & Ben-Harari, M.** (Southern General Hosp. U. Glasgow) *Training of clinical psychologists in the University of Glasgow.* *Bull. Brit. Psychol. Soc.*, 1962, 46, 53-57.—A combined academic and in-service postgraduate training scheme is described.—C. C. Kiernan.

2255. **Greening, Thomas C.** (Psychological Service Ass.) *Post-doctoral training in psychotherapy: Four dilemmas.* *Psychol. Rep.*, 1962, 10(2), 343-347.—A discussion of needs and motivations typical of a recent PhD which are inconsistent with the requirements of post-doctoral training. "The intent of this paper is to bring these factors into clearer focus so that training programs will not founder on unrealistic estimates of the motivations and capacities of new PhD psychologists."—B. J. House.

2256. **Maxwell, A. E.** (Maudsley Hosp., London, England) *Experimental design.* *Bull. Brit. Psychol. Soc.*, 1962, 46, 17-22.—The necessity for training in the appraisal of experimental design is emphasized. Methods of introducing students to statistical methodology and experimental design through the study and critical discussion of actual experiments are outlined.—C. C. Kiernan.

2257. **Mayman, M.** (Menninger Found.) *Post-doctoral training for clinical competence.* *J. prof. Tech.*, 1962, 26(3), 305-309.—Patterns and goals in postdoctoral training programs are presented. The author expresses a preference for increased attention to scientific aspects of psychology to correct deficiencies in present graduate programs. Difficulties in a graduate program's simultaneously providing adequate professional training and academic foundations for developing clinical competence are described.—A. Greenwald.

2258. **Shepherd, M.** (Maudsley Hosp., London, England) *Department of Psychiatry at the Institute of Psychiatry, University of London.* *Bull. Brit. Psychol. Soc.*, 1961, 44, 29-35.—A report of research and teaching programmes in execution.—C. C. Kiernan.

2259. **Summerfield, A.** (Birkbeck Coll., U. London) *Statistical inference.* *Bull. Brit. Psychol. Soc.*, 1962, 46, 23-28.—The author argued that since experimental inferences depend on statistical inference, giving an understanding of the latter should be one of the prime objects of those teaching statistics to psychology students. It is suggested that a grasp of basic principles can be given without recourse to mathematical arguments.—C. C. Kiernan.

2260. **World Health Organization, Expert Committee on Mental Health.** *The undergraduate teaching of psychiatry and mental health promotion.* *WHO tech. Rep. Ser.*, 1961, No. 208. 36 p.—Undergraduate medical education should give the "undergraduate an understanding of normal psychological development and of the origin and nature of common psychological disorders equal to that already

provided in the organic field." It would be directed "not only to the training of future psychiatrists but also, and even predominantly, to the preparation of the physician for general practice."—*J. C. Franklin.*

PSYCHOLOGY ABROAD

2261. Broadhurst, P. L., & Martin, Irene. (Maudsley Hosp., London, England) **Comparative and physiological psychology in Britain: 1960.** *Bull. Brit. Psychol. Soc.*, 1961, 45, 41-55.—A brief summary of the research fields covered in British centers. (175 ref.)—*C. C. Kiernan.*

2262. Calvin, A. C. (Britannica Cent. Studies in Learning & Motivation, Palo Alto, Calif.) **One American's impression of contemporary European psychology.** *Bull. Brit. Psychol. Soc.*, 1961, 44, 19-28.—A brief review of the interests and resources of psychologists in Norway, Sweden, USSR, West Germany, Austria, and Italy.—*C. C. Kiernan.*

2263. Cortazzi, Diana; McKellar, P., & Pickford, R. W. (Royal Earlswood Hosp., Redhill, Surrey, England) **A psychologists' visit to Moscow and Leningrad.** *Bull. Brit. Psychol. Soc.*, 1962, 47, 17-24.—After reviewing work at present in progress in the fields of psychology and psychiatry, the authors conclude that Soviet psychology merits serious attention and study.—*C. C. Kiernan.*

2264. Fletcher, Frank M., & Riddle, Charles W. **The guidance movement in India.** *Personnel Guid. J.*, 1962, 40(9), 807-810.—Progress in guidance as well as obstacles yet present in India are reviewed.—*S. Kavruck.*

2265. Knight, R. (U. Aberdeen) **The department of psychology in the University of Aberdeen.** *Bull. Brit. Psychol. Soc.*, 1962, 47, 3-11.—The history and present structure of the department is outlined.—*C. C. Kiernan.*

2266. Miller, Jessie L., & Miller, James G. (U. Michigan) **Behavioral scientists visit the Soviet Union.** *Behav. Sci.*, 1962, 7(3), 344-378.—A discussion of a trip to the Soviet Union beginning with the expectations and attitudes of the group and on to the physical aspects of those portions of the country which were seen by the group, the peoples, the structure of Soviet science, and some comments of certain specific areas of science of interest to the group (psychology and neurophysiology, education, psychiatry, sociology, anthropology, and the Soviet philosophy of science). The implications of these findings are noted in 11 recommendations aimed at both the American government and the individual citizen.—*J. Arbit.*

2267. Rapport, Anatol. (U. Michigan) **Modern developments in behavioral science in Poland.** *Behav. Sci.*, 1962, 7(3), 379-389.—A discussion of observations during a 3-month stay in Poland with comments on the Psychometrical Laboratory, a seminar offered by the author on the philosophy of language, the Institute of Applied Mathematics at Wroclaw, and a Research Center for General Theory of Organization.—*J. Arbit.*

2268. Zangwill, O. L. (U. Cambridge) **The Cambridge psychological laboratory.** *Bull. Brit. Psychol. Soc.*, 1962, 48, 22-24.—An account of the research and teaching facilities available.—*C. C. Kiernan.*

EXPERIMENTAL PSYCHOLOGY

2269. American Psychological Association, Division of Experimental Psychology. **Computer applications to psychological research.** *Behav. Sci.*, 1962, 7(3), 396-417.—The following papers were presented at a symposium at the American Psychological Association annual meeting on 3 September 1961: Charles F. Wrigley, "Introduction: The Increasing Use of Computers"; B. W. White, "Computer Applications to Psychological Research: Studies in Perception"; R. F. Simmons, S. Klein, and K. McConlogue, "Toward the Synthesis of Human Language Behavior"; H. Borko, "Computer Simulation of Neurophysiological and Social Systems"; and J. C. Lingoes, "Information Processing in Psychological Research."—*J. Arbit.*

2270. Bell, C. R. (U. Oxford) **Personality characteristics of volunteers for psychological studies.** *Brit. J. soc. clin. Psychol.*, 1962, 1(2), 81-95.—Pertinent literature is examined under 5 headings; unconventionality, adjustment, anxiety, social extraversion, and need achievement. Most volunteer bias studies have centered on expressed willingness to participate; this may not be the same as actual participation in the experimental situation. It is not yet possible to provide adequate experimental controls based on the prediction of magnitude and direction of sources of volunteer bias. (63 ref.)—*C. M. Franks.*

PSYCHOPHYSICS

2271. Eisler, Hannes. (U. Stockholm, Sweden) **Empirical test of a model relating magnitude and category scales.** *Scand. J. Psychol.*, 1962, 3(2), 88-96.—The function $K = a \log(\psi + q/k) + \beta$ seems to describe the relation between category scale values K and subjective magnitudes. The additive constant q/k is obtained from the standard deviations of the magnitude estimates. The model was empirically confirmed for the loudness and softness of white noise scaled by the methods of magnitude estimation and category rating.—*Journal abstract.*

2272. Eisler, Hannes. (U. Stockholm, Sweden) **On the problem of category scales in psychophysics.** *Scand. J. Psychol.*, 1962, 3(2), 81-87.—In the 1st part of the paper it is shown that, if 3 assumptions are granted, the category scale must be logarithmically related to the magnitude scale: $K = a \log \psi + \beta$. In the 2nd part of the paper, the relation $K = a \log(k\psi + q) + \beta$ is derived, starting from the assumptions that the category scale is a pure function of discrimination and that discrimination is appropriately described by the linear generalization of Weber's law for prothetic continua. We can reconcile these 2 formulas by defining the zero-point of the magnitude scale as the point where variability vanishes.—*Journal abstract.*

2273. Lhamon, W. T., Edelberg, R., & Goldstone, S. (Houston State Psychiatric Inst.) **A comparison of tactile and auditory time judgment.** *Percept. mot. Skills*, 1962, 14(3), 366.—Recent experiments demonstrated that a longer visual than auditory stimulation is judged equivalent to Ss concept of 1 second. Ascending and descending judgments of "more" or "less" in this study showed auditory stimulation to be judged significantly longer than tactile.—*W. H. Guertin.*

PERCEPTION

2274. Adams, D. K. (Duke U.) **Perceiving the world of others.** *Psychol. Beitr.*, 1962, 6(3-4), 416-425.—It is argued: (a) that our perceptions of the subjective situation of another have the same epistemological status as any other perceptions: (b) that the nervous mechanisms mediating such perceptions are a subclass ("analogomorphic") of the ratiomorphic processes evolved for the perception of Gestalten, constant objects, and causes; and (c) that the perception of the world of another is as objective as any other perception and subject to the same tests. (French & German summaries)—H. J. Priester.

2275. Ammons, R. B., & Ammons, C. H. (Montana State U.) **Perception bibliography: I. Introduction.** *Percept. mot. Skills*, 1962, 14(3), 509-510.—Explanation of a project to publish a cumulative bibliography on perception going back to 1894.—W. H. Guertin.

2276. Ayres, J. J., & Harcum, E. R. (Coll. William & Mary) **Directional response-bias in reproducing brief visual patterns.** *Percept. mot. Skills*, 1962, 14(1), 155-165.—10 Os reproduced 10-element binary patterns flashed across fixation along the horizontal meridian. After the pattern was exposed, O was instructed to reproduce the pattern from left to right, right to left, center out, or to use any of the above 3 sequences at his option. Given an option, 9 of the 10 Os consistently marked the responses from left to right. Os made fewer errors on the left with left-to-right sequences than with right-to-left sequences. Marking responses from the center of the pattern, i.e., near fixation, out toward the ends of the pattern resulted in error-functions which were generally between those for right-to-left and left-to-right sequences.—W. H. Guertin.

2277. Banks, R., & Cappon, D. (U. Toronto) **Effect of reduced sensory input on time perception.** *Percept. mot. Skills*, 1962, 14(1), 74.—Data were gathered on time estimation (duration) and feeling about time passage after 90 minutes of reading or filling out questionnaires. The time was underestimated (7 of 8 Ss) but no clear relationship to the feelings about time passage emerged.—W. H. Guertin.

2278. Belyaeva-Eksemplarskaya, S. N. (Moscow, USSR) **Ob izuchenii protsessov vospriyatiya i otsenki vremeni.** [On the study of the process of perception and evaluation of time.] *Vop. Psikh.*, 1962, No. 1, 148-156.—The methodology and problems of research in time perception are discussed. A difficulty arising from the method of reproduction of time intervals is noted. Namely, if the reproduced time interval is too short or too long there is no way of telling how much of the error comes from the perception of the original time interval, and how much is introduced during the reproducing. The relation between judgments of elapsed time and the Ss activity during the time interval are discussed. The author distinguishes between cases where judgments of elapsed time are based on the events occurring during the time (perspective evaluation) and cases where judgments are based on the expectancy of the S during the time (expectancy or emotional evaluation). Judgments of time generally are related to what the S is considering when making his evaluation and on the individual tempo characteristics of the S.—H. Pick.

2279. Drever, J. (U. Edinburgh) **Perception and action.** *Bull. Brit. Psychol. Soc.*, 1961, 45, 1-9.—In his Presidential address to the British Psychological Society the author argues for an experimental study of perception based on the use of actions or operations as independent variables.—C. C. Kiernan.

2280. Farrow, Bobby J., & Santos, John F. (Menninger Found., England) **Changes in autokinetic perception as a function of the transfer of conditioning effects.** *Brit. J. Psychol.*, 1962, 53(3), 331-337.—This study was designed to test the hypothesis that the spatial region in which autokinetic movement occurs can be altered by means of negative reinforcement operations. 3 groups were employed. Control Group I was tested on autokinetic perception and after a 4 min. delay was retested. Control Group II viewed and reported the location of a moving light with no negative reinforcement between the test and retest of autokinetic perception. The Experimental Group received the same training as Control Group II, but was negatively reinforced while viewing and reporting the location of a moving light. A reinforcement schedule provided 75% of the reinforcements on the predominant side (left or right) of initial autokinetic movement and 25% of the reinforcements on the opposite side. The data supported the hypothesis that the spatial region of autokinetic movement can be altered by conditioning operations intervening between test and retest. An explanation of the results in terms of the conditioning of affect to the individual's subjective space is proposed and some implications of these effects for perception and behaviour are discussed.—Journal abstract.

2281. Levy, L. H. (Indiana U.) **Weber fraction analogues in social perception: Further investigation. A comment.** *Percept. mot. Skills*, 1962, 14(3), 424.—Braun and Haven recently reported results that they interpreted as not supporting the Weber Fraction Analogue in social perception. Levy takes issue with their interpretation.—W. H. Guertin.

2282. Mallick, Amar Kumar. **A scale for the measurement of subjective duration.** *J. psychol. Res., Madras*, 1962, 6(1), 1-3.—Analysis of data from psychological experiments on temporal estimate shows that the S's response is a linear function of the stimulus. A psychological scale was constructed both graphically and analytically from this line.—U. Pareek.

2283. Miller, Earl F., II, & Graybiel, Ashton. (USN School Aviation Medicine, Pensacola, Fla.) **Comparison of autokinetic movement perceived by normal persons and deaf subjects with bilateral labyrinthine defects.** *USN Sch. Aviat. Med. NASA Jt. res. Rep.*, 1962, Proj. MR005.13-6001, Subtask 1, Rep. No. 66; NASA Order No. R-37. ii, 10 p.—Autokinesis as perceived by 9 normals and 9 bilateral labyrinthine defective (LD) Ss was measured by a simple and highly reliable method. Each S participated in 2 trials (one sitting, the other recumbent), each of about 15 minutes duration. The results confirmed an earlier finding that the sensory organs of the inner ear are not essential for the perception of autokinetic movement. Furthermore, the amount of angular autokinetic movement was found to be significantly greater, on average, in the labyrinthine defective group than in the normal group of Ss. These findings suggest that the sensory input from the organs of the inner ear under the conditions of the

experiment tended either directly or indirectly to stabilize the fixation target in space. No significant differences in autokinesis were manifested between the 2 head (body) positions for either group.—*USN SAM & NASA*.

2284. Rosen, A. C. (U. California, Los Angeles) **A correlational exploration into perceptual and motivational phenomena.** *Percept. mot. Skills*, 1962, 14(1), 63-69.—Using stimuli of markedly differing structural character and emotional tone, a correlational analysis was performed on visual exposure duration thresholds obtained for 12 stimuli. Changes in perceptual thresholds appeared to be more powerfully influenced by the structural or formal characteristics of the stimuli than by the degree of the psychiatric patients' emotional distress. The findings suggest that caution must be exercised in interpreting or generalizing the findings of perceptual threshold experiments beyond the laboratories in which they were performed.—*W. H. Guertin*.

2285. Schneider, Carl W., & Bartley, S. Howard. (Michigan State U.) **A study of the effects of mechanically induced tension of the neck muscles on the perception of verticality.** *J. Psychol.*, 1962, 54(1), 245-248.—A connection between kinesthesia and visual perception was demonstrated. As tension in the neck muscles produced by a horizontal torque is increased, the perceived vertical of an upright rod tends to deviate farther from the true gravitational vertical on the side opposite the application of the torque. The initial rod position had a significant effect on the observer's perceived vertical. Hyperopia tends to result when torque becomes great, possibly accounting for the blurred vision experienced by many of the observers under the same conditions.—*Author abstract*.

2286. Siegman, A. W. (U. Maryland School Medicine) **Intercorrelation of some measures of time estimation.** *Percept. mot. Skills*, 1962, 14(3), 381-382.—The methods of verbal estimation, production, and reproduction were used to study subjective time with 5-20 sec. duration. Only the first 2 had satisfactory reliability. Correlations between verbal estimation and production and between verbal estimation and reproduction were significantly lower than the least reliable of the 2 methods being compared. It was suggested that these methods measure other variables in addition to subjective time units.—*W. H. Guertin*.

2287. Stone, Freda Beth. (Washington U.) **Retroactive effects in perception analogous to retroactive inhibition in learning.** *Dissert. Abstr.*, 1962, 22(12), 4419.—*Abstract*.

2288. Tánczos, Zsolt. (U. Budapest) **Szenzomotoros koordináció inverz látómezőben.** [Sensory-motor coordination in an inverse field of vision.] *Pszichol. Tanulmányok*, 1958, 1, 133-140.—"An 'analytical' version of the Stratton situation has been produced on the basis of connecting perception with motoric action in such a way that the action should influence the physical conditions of the perceptual quality in question." (Russian & English summaries)—*E. Friedman*.

2289. von Fieandt, K. (Stahlbergintie 3B, Braendoe, Helsinki, Finland) **Current trends in perceptual psychology.** *Psychol. Beir.*, 1962, 6(3-4), 651-661.—2 types of explanations: (a) S-R (stimulus-re-

action) and (b) S-O-R (stimulus-organism-reaction) prevail in the contemporary literature on perception. The historical background of both is discussed. Alternative reaction dispositions ("gestalt tendencies") are demonstrated with the aid of reversible patterns. The stimulus-oriented perceptual psychology of Gibson is mentioned, and an attempt is made to bring it in harmony with the organismic approach. (French & German summaries)—*H. J. Priester*.

2290. Zinchenko, V. P. (Inst. Psychology, RSFSR Acad. Pedag. Sciences) **Vospriatie i deistvie: Soobshchenie II. K kharakteristike protsessov vospriatiia.** [Perception and action. Communication II: Characteristics of the perceptual process.] *Dokl. Akad. Pedag. Nauk RSFSR*, 1961, No. 5, 93-96.—Theoretical discussion of the process of perception in the light of Soviet psychology. The perception is broken down and analyzed in its different aspects such as practical-intentional, strictly perceptual, and reproductive.—*A. Cuk*.

Illusions

2291. Kaufman, Lloyd, & Rock, Irvin. **The moon illusion.** *Scient. American*, 1962, 207(1), 120-132.—2 theories have been advanced for the moon illusion: the apparent distance theory and the angle-of-regard theory. The authors demonstrate with a series of experiments that the moon illusion depends on the presence of terrain and specifically on the distance effect of the terrain. Eye elevation, color, and apparent brightness have nothing to do with the phenomenon.—*L. A. Wauck*.

2292. Kennett, J. R. (U. Houston) **Influence of subliminal stimuli on comparative judgments of length.** *Percept. mot. Skills*, 1962, 14(3), 383-389.—The effect of a synthesized, horizontal Mueller-Lyer figure was studied in 30 female Os with a figure in which the illusion-producing arrowheads differed one shade of gray from the background of the black figure. The experimental figure and a neutral control line were presented at (a) the mean light intensity for accurate verbal report, (b) one SD below the mean, and (c) two SD above the mean with a modified method of transposition. Os' judgments of line length were affected to a significant degree by the Mueller-Lyer figure at all 3 light intensity levels, but the effect was a reversal of the usual illusion. The greatest effect was at the subthreshold light intensity.—*W. H. Guertin*.

2293. Ponzo, Ezio. (U. Rome, Italy) **Contributo allo studio della reversibilità di prospettiva: Apprendimento a revertire e atteggiamento discriminativo.** [Contribution to the study of reversible perspective: learning to reverse and discriminative set.] *Riv. Psicol.*, 1961, 55, 33-55.—41 adult females in 2 matched groups observed 3 figures patterned on the Necker cube under instructions to get as many reversals as possible. Group I viewed figures in the order simple to complex (1, 3, and 6 cubes), Group II in the order complex to simple. Group I showed significantly more reversals, especially on the 6-cube figure. This is interpreted as evidence for learning. Both groups show substantial correlations between intelligence and frequency of reversal. Phenomenal reports are interpreted as evidence for the development of a response set favoring reversals.—*L. V. Steinzor*.

2294. Rock, Irvin, & Kaufman, Lloyd. The moon illusion. Part II. *Science*, 1962, 136 (Whole No. 3521), 1023-1031.—The moon's apparent size is a function of the presence or absence of terrain.—*Journal abstract*.

Aftereffects

2295. Cann, Michael Arthur. (Boston U.) The negative after-effect of motion as a function of test stimulus texture. *Dissert. Abstr.*, 1961, 22(3), 923.—*Abstract*.

2296. Holland, H. C. The spiral after-effect and extraversion. *Acta psychol., Amsterdam*, 1962, 20(1), 29-35.—Earlier studies revealed a shortening of the spiral-effect due to depressants, but no significant lengthening due to stimulants. Organics, who by hypothesis should behave like extreme extraverts, had aftereffect durations shorter than normals. The present report, dealing with 245 industrial apprentices, leads to a reappraisal of earlier results and a consideration of differences in experiments before results can be viewed as critical to the existing hypothesis.—*G. Rubin-Rabson*.

2297. Obonai, T. (Tokyo U. Education, Japan) Some analytical studies of the induction field. *Psychol. Beit.*, 1962, 6(3-4), 622-629.—Some quantitative studies of figural aftereffect and other related phenomena are presented. The field effect was found to decay exponentially. The inspection time of the stimulus figure and the duration of the aftereffect were connected by a power function. Increasing the size of the stimulus figure was also found to prolong the duration of aftereffect. A hypothetical general scheme of an induction field having an antagonistic dual nature was suggested in explanation of the experimental data. (French & German summaries)—*H. J. Priester*.

2298. Prentice, W. C. H. Aftereffects in perception. *Scient. American*, 1962, 206(1), 44-50.—Certain optical illusions involve the reversal of a geometrical figure on prolonged viewing. These aftereffects and similar ones appear to be due to a special electrical phenomenon in the brain.—*L. A. Waack*.

2299. Spigel, Irwin M. (Western Psychiatric Inst., U. Pittsburgh) Contour absence as a critical factor in the inhibition of the decay of a movement aftereffect. *J. Psychol.*, 1962, 54(1), 221-228.—In an experiment to determine the sufficient condition for the inhibition of aftereffect decay, 25 male Ss were employed in a 5 × 5 multiple latin square design. Intervals of darkness, relatively homogeneous illumination of different intensities, and successive exposure to contour and darkness were interpolated between objective movement stimulation and re-exposure to the stationary radial pattern. All interpolated post-movement stimulation, in which contour stimulation was minimized, brought about decay inhibition to a highly significant degree, as measured by residual aftereffect duration. Maximal inhibition was evident under conditions of interpolated darkness and illumination of reduced intensity. Conclusions were: (a) the rate of decay of a movement aftereffect may be inhibited by the interpolation of reduced contour stimulation, and (b) that change in stimulus condition is a factor in the mediation of the inhibitory process.—*Author abstract*.

2300. Spigel, Irwin M. (U. Pittsburgh School Medicine) Relation of movement aftereffect dura-

tion to interpolated darkness intervals. *Life Sci.*, 1962, No. 6, 239-242.—“The function relating residual aftereffect duration to multiples of S's mean aftereffect time in post-rotation darkness appeared to be linear. A least-squares fit yielded the equation: $T = 8.94 - 2.22M$, where T is the residual aftereffect in seconds, and M, the multiple of the normally determined mean aftereffect following exposure to the rotating pattern. Thus it may be inferred that the decay of the aftereffect is a linear function of multiples of the duration of one's mean aftereffect in post-exposure darkness.”—*C. T. Morgan*.

2301. Thurner, F. K., & Seyfried, H. Are figural after-effects dependent upon age? *Acta psychol., Amsterdam*, 1962, 20(1), 58-68.—Large individual differences, but no group differences, exist in figural aftereffects of perception among 12 year old children and adults. No sex differences appeared. The groups were compared for size of effect, slope of decline relative to time, frequency of occurrence of opposite effect, and goodness of fit of decrease in size to a logarithmic function of time.—*G. Rubin-Rabson*.

VISION

2302. Bykov, K. M., et al. (Eds.) *Trudy Chetvertogo Soveshchaniia po Fiziologicheskoi Optike*. [Transactions of the Fourth Conference on Physiological Optics.] *Probl. fiziol. Opt.*, 1958, 12, 1-550.—Papers, read at the Fourth Conference of Physiological Optics, held in October 1955 in Leningrad, are reproduced. The volume includes a resolution sketching future plans, pointing to serious deficiencies in optical research and practice, and suggesting measures for their elimination.—*I. D. London*.

2303. Davis, Preston, Jr. (Boston U.) Discrimination without awareness in a psychophysical task. *Dissert. Abstr.*, 1961, 22(3), 923.—*Abstract*.

2304. Evans, Leonard Albert. (U. Wisconsin) The effect of critical fusion frequency of monochromatic and heterochromatic stimulus alternation. *Dissert. Abstr.*, 1961, 22(3), 924.—*Abstract*.

2305. Jahoda, Gustav. (U. Glasgow) Refractive errors, intelligence and social mobility. *Brit. J. soc. clin. Psychol.*, 1962, 1(2), 96-106.—“Existing evidence concerning the relationship between refractive error and intelligence, and the determinants of the former, is reviewed. This leads to the expectation that myopia and hypermetropia entail some tendency towards upward and downward social mobility respectively. Two hypotheses were framed accordingly, and tested with samples of ametropic school-children and normal controls. The associations between type of refractive error, test performance and parental occupation were in conformity with the predicted patterns and highly significant. A tentative model is suggested which takes account of the time dimension in the mobility process, and the potential implications of the findings emerging from this exploratory investigation are discussed.”—*C. M. Franks*.

2306. Witte, W. (U. Tuebingen, Germany) Zur Wissenschaftsstruktur der psychologischen Optik. [The scientific structure of psychological optics.] *Psychol. Beit.*, 1962, 6(3-4), 451-462.—2 forms of statements in psychological optics may be distinguished besides the purely psychophysical ones: (a) those which include not the character of the stimuli but their identity, (b) those which are not related to

any stimuli and which deal with regular covariation of simultaneous phenomena data. Only the latter group of statements has intrinsic epistemological value and directs attention to the search for mediating physiological processes. (English & French summaries)—*H. J. Priester*.

Space Perception

2307. Boardman, W. K., & Goldstone, S. (Baylor U. Coll. Medicine) **Effects of subliminal anchors upon judgments of size.** *Percept. mot. Skills*, 1962, 14(3), 475-482.—A 4-field tachistoscope was used to present a series of 5 disks by the method of single stimuli. Os made judgments of magnitude on a 5-point scale. An extra-series anchor was then presented subliminally prior to the exposure of each judged stimulus. For one group of Os subliminal anchor above the stimulus series was used, for the other an anchor below the stimulus series. Each produced a significant shift in judgments in the same direction as do equivalent supraliminal anchors. The results suggest that classical sensory thresholds do not represent the lower limit of quantifiable stimulus effects upon judgments.—*W. H. Guertin*.

2308. Brown, D. R., Hitchcock, L., Jr., & Michels, K. M. (Purdue U.) **Quantitative studies in form perception: An evaluation of the role of selected stimulus parameters in the visual discrimination performance of human subjects.** *Percept. mot. Skills*, 1962, 14(3), 519-529.—20 undergraduate students were tested on 80 6-choice oddity problems. The problems were constructed so that intraproblem figures (random metric figures) were equated on sidedness plus axial rotation, elongation, compactness, or areal asymmetry. A curvilinear relationship was obtained between correct discrimination time and sidedness (complexity), with 4-sided figures being most difficult to discriminate. Equating figures on axial rotation led to consistent difficult discrimination, but the relative importance of other dimensions to discriminability varied for different levels of complexity.—*W. H. Guertin*.

2309. Calvin, A. D., & Youniss, J. (Behavioral Research Lab., Palo Alto, Calif.) **The enclosing contour effect: Some additional remarks.** *Percept. mot. Skills*, 1962, 14(1), 132.—The authors briefly discuss parallels in the results of an earlier study on the enclosing contour effect that was called to their attention.—*W. H. Guertin*.

2310. Cohen, R. L. (U. Uppsala, Sweden) **An investigation of velocity synthesis.** *Scand. J. Psychol.*, 1962, 3(2), 97-111.—A short series of experiments has shown that it is possible to divide up the distribution of scores obtained from a group of Ss performing on the velocity synthesis apparatus mainly on the basis of (a) instructions and (b) eye behavior. It was further found that the difference in scores dependent on differences in eye behavior could be traced to the effect of the Aubert-Fleischl Paradox. An alternative to the gestalt model was suggested, viz., a signal/interference model.—*Journal abstract*.

2311. Ganem, George P. **Absolute judgments of velocity.** *USAF ESD tech. docum. Rep.*, 1962, No. 62-37. iii, 13 p.—The present study was conducted to determine the maximum amount of information transmitted by Os in the absolute judgment of velocity. The study was subdivided into a series of 5 experi-

ments in which 2, 4, 7, 10, or 19 sweep velocities of a 4½-inch cathode ray tube—ranging from .70 inches per second to 300 inches per second (3.90° per second to 1688.70° per second of visual angle)—were presented to 4 Ss who were required to identify the stimuli with numbers ranging from 1 to 19. An information analysis indicated that as the amount of stimulus information was increased the amount of transmitted information also increased, but at a decreasing rate, until a maximum of 2.23 bits of information was transmitted. Although anchoring effects occurred at both ends of the stimulus continuum, the low velocities were more accurately identified than were the high velocities.—*USAF ESD*.

2312. Gottsdanker, Robert. (U. California, Santa Barbara) **Assessment of motion as influenced by structure of background.** *Scand. J. Psychol.*, 1962, 3(2), 122-128.—Detection of target acceleration was improved by having a near landmark in addition to the surrounding frame. Adding landmarks, even within the course of motion, brought no further gain. Evidently, rate is not assessed by estimating time taken to cover known distances. Best performance was found when fine background marks were near enough together to form a texture, but not if it was perfectly uniform. It is suggested that the advantage provided both by the near point and the texture is the indirect one of stabilizing space. This effect is conceived of as graded, reaching its ultimate value in a textured surface.—*Journal abstract*.

2313. Harker, G. S. (USA Medical Research, Ft. Knox, Ky.) **Apparent frontoparallel plane, stereoscopic correspondence, and induced cyclotorsion of the eyes.** *Percept. mot. Skills*, 1962, 14(1), 75-87.—The presence of perceptual factors other than stereopsis to determine the apparent frontoparallel plane in the stereoscopic measurement of induced cyclotorsion of the eyes was demonstrated. The significance of the explanation offered for these data and those of "binocular depth contrast" lies in the possibility of applying the explanatory mechanism of the line-of-sight-dependency of stereopsis and the equidistance tendency to complex perceptual situations other than those from which they were derived.—*W. H. Guertin*.

2314. Johansson, G. (Uppsala U., Sweden) **Perceptual overestimation of small motion tracks.** *Psychol. Beitr.*, 1962, 6(3-4), 570-580.—The effect of overestimation of small motion tracks in visual perception has been established and termed Motion Track Enlargement (MTE). Experiments indicate that there are marked individual differences in the degree of MTE. Each of 47 Ss, however, recorded consistent overestimation. Every motion stimulation was accompanied by a large measure of MTE. (French & German summaries)—*H. J. Priester*.

2315. Kohler, Ivo. **Experiments with goggles.** *Scient. American*, 1962, 206(5), 62-86.—Special lenses are used to demonstrate the eye's remarkable ability to correct for distortions. Such studies help to explain how the visual system learns to produce an effective picture of the world.—*L. A. Wauck*.

2316. Krauskopf, John. (Rutgers U.) **Light distribution in human retinal images.** *J. Opt. Soc. Amer.*, 1962, 52(9), 1046-1050.—The image-forming properties of the human optical system have been examined with the aid of a photoelectric ophthalmoscope. The light distributions in images of bright vertical

lines formed by a double passage through the eye optics were measured. On the assumption that the eye optics are reversible, the light distributions on the retina were computed by means of Fourier transforms. The results are also expressed in terms of the spatial frequency response functions for the eye. The effects of pupil size were examined. The best imagery was obtained with a 5-mm. pupil. The results confirmed the earlier measurements on human eyes reported by Flamant. The more recent experiments on animal material by DeMott do not seem to be relevant to living human eyes.—*Journal abstract.*

2317. Metzger, W. (U. Münster, Germany) *Ergänzende Beobachtungen über Gestaltfaktoren für Bewegungsverläufe.* [Complementary observations on gestalt factors in tracks of movements.] *Psychol. Beih.*, 1962, 6(3-4), 607-619.—Some open questions of phenomenal identity are discussed with the aid of new trick films. The principal results are that (a) closure does not play an essential part in the distribution of tracks of movements, (b) this distribution of tracks of movements differs in several respects from the arrangement of configurations as seen simultaneously by adults. (English & French summaries)—*H. J. Priester.*

2318. Monty, R. A., & Boynton, R. M. (General Electric Missile & Space Vehicle Dept.) *Stimulus overlap and form similarity under suprathreshold conditions.* *Percept. mot. Skills*, 1962, 14(3), 487-498.—When 2 forms having equal area are superposed, the amount of common area will vary from just above zero % when the 2 forms are just touching to some maximum value, as a function of the translational and rotational positions of the forms. The term "overlap" refers to the maximum value that can be obtained either by translation or by translation and rotation of the forms. Thus, TR overlap is the maximum overlap that can be obtained by translational and rotational movement of the forms whereas T overlap is the maximum overlap that can be obtained by translation alone. The experiment demonstrated that the overlap between forms in a pair serves as a predictor of the extent to which the forms will be judged as similar.—*W. H. Guertin.*

2319. Nazzaro, James Russell. (Columbia U.) *Bisection of a visual spatial interval.* *Dissert. Abstr.*, 1961, 22(4), 1266.—*Abstract.*

2320. Over, Ray. (Queen's U.) *Stimulus wavelength variation and size and distance judgments.* *Brit. J. Psychol.*, 1962, 53(2), 141-147.—Previous experiments which have studied the relationship between stimulus wavelength variation and size and distance judgments have confounded wavelength with luminance, which is known to be an effective variable. Using a rationale which combines the fact that light from stimuli of different wavelengths stimulates different areas of the retina (chromatic aberration) with the finding that under reduced viewing conditions 2 stimuli of the same wavelength are judged equal in both size and distance when they stimulate equal areas of the retina, it was predicted that when the S was presented with 2 stimuli subtending the same visual angle and of the same luminance but of different wavelengths the stimulus of longer wavelength would be judged to be both larger and closer than the stimulus of shorter wavelength. This prediction was confirmed in the experiment.—*Journal abstract.*

2321. Pearce, D. G., & Taylor, M. M. (Defence Research Medical Lab., Toronto) *Visual length as a function of orientation at four retinal positions.* *Percept. mot. Skills*, 1962, 14(3), 431-438.—Intervals flash-presented at various orientations and positions with their centres always 10° from the fixation point, were compared with a 3.6° horizontal standard interval with its centre at the fixation point. Fixation was accomplished with a "disappearing spot" technique. The results have been interpreted as showing that the usual horizontal-vertical illusion does not operate alone in the near periphery. A tentative conclusion has been drawn that distances radial to a particular point 6.5° from the fixation point are underestimated relative to distances tangential to a circle with its centre at that point. The ordinary horizontal-vertical illusion may be regarded as an example of the same general effect.—*W. H. Guertin.*

2322. Rausch, E. (U. Frankfurt, Germany) *Über optisch wahrgenommene Singularitätsverlagerungen.* [Visually perceived dislocations of singularities.] *Psychol. Beih.*, 1962, 6(3-4), 581-597.—The dislocation of a dark singularity in a motionless configuration of points of light is described. The comparison with nonrealized variants is used as the special method in discussing this phenomenon. The singularity dislocation described is placed theoretically between stroboscopic dark-Phi and pure succession and is referred to as successive-Phi. (English & French summaries)—*H. J. Priester.*

2323. Smith, B. B. (Oxford U.) *Neighborhood phenomena.* *Jb. Psychol. Psychother. med. Anthropol.*, 1960, 7(3-4), 287-311.—The concept of "blisters" of du Mas and its experimental foundations are discussed, and a new concept of "neighborhood phenomena" proposed. According to the author these perceptual processes suggest a central operation. "Perceptually, whenever and wherever objects approach one another and interpose themselves, something happens: there is some departure from the rigid demands of a simple pinhole geometry. Objects as they slip out of sight, merge with or pass one another, or are seen out of the tail of the eye, continually deform or shift, only to recover themselves and their immobility when they are in the open and subject to direct scrutiny."—*V. J. Bieliuskas.*

2324. Wallach, H., & Lindauer, J. (Swarthmore Coll.) *On the definition of retinal disparity.* *Psychol. Beih.*, 1962, 6(3-4), 521-530.—It is proposed that retinal disparity is effective through the differences in the configuration of the 2 monocular patterns, as such, rather than through differences in location on the retinae of individual points and lines. 4 experiments are reported in support of this thesis, and they show that the effectiveness of retinal disparity varies with the conspicuousness of the difference in configuration which the disparity produces. (French & German summaries)—*H. J. Priester.*

2325. Westheimer, Gerald, & Campbell, Fergus, W. (U. California, Berkeley) *Light distribution in the image formed by the living human eye.* *J. Opt. Soc. Amer.*, 1962, 52(9), 1040-1045.—By photoelectric scanning, the light distribution was determined in the aerial ophthalmoscopic image of a thin light filament viewed by an observer with an homotropized eye. Light distributions were obtained for various pupil sizes and degrees of defocusing. Measurements were also obtained with bar and grat-

ing objects. To compute the line-spread function on the fundus, correction was made for the double passage of the light through the optical system of the eye on the assumption that the spread in angular measure is the same in both directions. The results may be considered to depict distributions which are possibly broader, but certainly not narrower, than the real distributions in the retinal image. The line-spread function on the fundus was determined to have a $\frac{1}{2}$ -width at $\frac{1}{2}$ -height of 1 minute of arc for an eye in best focus with a 3-mm. pupil, and this suggests that the point-spread function has $\frac{1}{2}$ -width 0.66 min. of arc as an upper estimate.—*Journal abstract.*

2326. Zajac, J. L. (U. Edinburgh, Scotland) **Some investigations of perception of movement and related depth phenomena.** *Brit. J. Psychol.*, 1962, 53(2), 117-128.—Investigations of perception of real movement have been carried out using a special apparatus designed by the author. Movement of a pendular character was produced by placing a prismatic "Chance Crookes" glass in front of one eye of an observer looking through it at a vertical rod, and rotating the glass. Amplitude and direction of the movement were a function of the distance of both the glass and the rod from the eye, of the thickness and prismatic angle of the glass, and of the direction and angle of turn of glass in relation to the eye. When angle of turn or speed of rotation, or both, are gradually increased, other factors remaining constant, observations concerning movement, in both monocular and binocular vision, varied following fixed sequences for monocular and binocular vision. The experiments consisted in noting the kind of observation and recording the related angle of turn and number of rotations of the prismatic glass; from these data mean speeds of the movement of the image of the rod were calculated. Observations concerning depth phenomena accompanying various kinds of perceived movement were also made.—*Journal abstract.*

2327. Zajac, J. L. (1917 Sanderson Dr., Ottawa Canada) **Stereoscopic depth phenomena with Witte-König effect.** *J. Psychol.*, 1962, 54(1), 153-157.—When 2 short lines separated by a sufficiently small gap, placed in front of one eye and only one in front of the other, are fused stereoscopically, a permanent gap appears in the composite image; but it is alternately closed and uncovered, or permanently closed, when the gap is increased. This so-called Witte-König effect was observed independently also by Zajac who made investigations on accompanying depth phenomena in the 3 mentioned situations. Reliefs, some quite unexpected, varied with changing relative lengths of particular lines and with changing size of the gap and also depended on whether the gap was closed or uncovered.—*Author abstract.*

2328. Zaporozhets, A. V. (Inst. Preschool Education, RSFSR Acad. Pedagogical Sciences) **O deistvennom kharaktere zritel'nogo vospriiatia predmeta.** [Effectiveness of visual perception of objects.] *Dokl. Akad. Pedag. Nauk RSFSR*, 1962, No. 1, 77-80.—Survey and discussion of experimental data from the author's laboratory on orienting activity in visual perception. The author concludes that "the process of visual perception is an abbreviation of the orienting activity."—*A. Cuk.*

2329. Zusne, L., & Michels, K. M. (Purdue U.) **Geometricity of visual form.** *Percept. mot. Skills*, 1962, 14(1), 147-154.—2 experiments were performed

to investigate the concept of geometricity by using some of the quantifiable physical shape parameters recently developed by others. A sample of 55 4-sided polygons was constructed by systematically distorting the square. Measurements were taken of their compactness, elongation, and areal symmetry in 3 axial rotations and combined into indices of measured geometricity. A total of 342 Ss were asked to rate the shapes, on a point scale, on their geometricity, regularity, and familiarity. Findings indicated important interactions between the rating variables and shape characteristics.—*W. H. Guerin.*

Color Vision

2330. Kelly, D. H. (Itek Lab., Lexington, Mass.) **Visual responses to time-dependent stimuli: IV. Effects of chromatic adaptation.** *J. Opt. Soc. Amer.*, 1962, 52(8), 940-947.—At photopic levels, the amplitude-frequency response curve of the retina assumes a wide variety of shapes when the color of the flickering component of the stimulus is not the same as that of the steady component. Apparently, the photoreaction rates and neural time constants of the various color subchannels differ in the same order as their spectral sensitivities, so that low-frequency sensitivity is enhanced when the adapting wavelength is longer than the flickering wavelength, and high-frequency sensitivity is enhanced when the adapting wavelength is shorter than the flickering wavelength. Chromatically adapted responses to white flicker show that the low-frequency band (4-7 cps) is controlled by the blue-sensitive channel; the middle-frequency band (10-15 cps), by the green-sensitive channel; and the high-frequency band (20-30 cps), by the red-sensitive channel. The results also depend on the spatial pattern of the stimulus; a sharp-edged field obscures the "red" peak and enhances the "blue" peak, even in the absence of blue light. These phenomena cannot be detected with traditional flicker-fusion stimuli, since they do not occur at the CFF.—*Journal abstract.*

2331. Siegel, Michael H. (USN Medical Research Lab., Groton, Conn.) **Discrimination of color: I. Comparison of three psychophysical methods.** *J. Opt. Soc. Amer.*, 1962, 52(9), 1067-1070.—The comparative adequacy of the method of limits, the method of constant stimulus differences, and the method of adjustment was studied by using 3 criteria suggested by Blackwell. It was concluded that the method of constant stimulus differences was the most adequate and the method of adjustment the least adequate for determining sensitivity to color differences.—*Journal abstract.*

2332. Siegel, Michael H., & Dimmick, Forrest L. (USN Medical Research Lab., Groton, Conn.) **Discrimination of color: II. Sensitivity as a function of spectral wavelength, 510 to 630 m μ .** *J. Opt. Soc. Amer.*, 1962, 52(9), 1071-1074.—The study reports the experimental determination of just noticeable differences in color as dependent upon wavelength at 10-m μ steps from 510 to 630 m μ . The method of constant-stimulus differences was used to produce limens in terms of measures both of central tendency and of dispersion of judgments. The data have been analyzed to determine the different functional relationship between various colors and wavelengths. Peak sensitivity was found in the yellow

region of the spectrum. The results were discussed in terms of methodological differences between the present and earlier studies and were applied to psychologically unique colors.—*Journal abstract.*

2333. Wheeler, Lawrence. (Indiana U.) **Color-naming responses to red light of varying luminance and purity.** *J. Opt. Soc. Amer.*, 1962, 52(9), 1058-1066.—A 10 × 10 Greco-Latin square composed of 2 10-value sets of neutral density filters projected with red and tungsten lights provided a combination image in which the arrangement of hues appeared unsystematic. 9 Ss gave a total of 1326 color-naming responses from which were derived estimates of hue, lightness, and saturation for each cell of the square. Saturation varied as a function of the purity of the red light, lightness was found to be associated mainly with relative luminance, and hue was related both to proportion of red light and to relative luminance. Hue ranged over nearly the entire circuit, while lightness and saturation varied over considerable ranges. Analysis by concentric layers or rings of the sampling space described the response-events clearly, while analysis by constant chromaticity lines through the sampling space showed that single hues did not lie along such lines.—*Journal abstract.*

Visual Sensitivity

2334. Braunstein, Myron L., & White, William J. (Cornell Aeronautical Lab., Buffalo, N. Y.) **Effects of acceleration on brightness discrimination.** *J. Opt. Soc. Amer.*, 1962, 52(8), 931-933.—Brightness discrimination thresholds were determined at positive acceleration levels of 1, 2, 3, and 5 g and transverse acceleration levels of 1, 2, 3, 5, and 7 g. 4 background luminance-levels, ranging from 0.03 to 31 ft-L, were studied. Contrast required to detect an increment in illumination increased with acceleration. This increase was present for both directions of acceleration and for all background levels, but was most marked for positive acceleration and for the dimmest background. At 0.03 ft-L, 16% contrast was required to detect a target at 5 g positive, as compared to 9% at 1 g.—*Journal abstract.*

2335. Brown, John Lott. (U. Pennsylvania) **Harmonic analysis of visual stimuli below fusion frequency.** *Science*, 1962, 137(Whole No. 3531), 686-688.—Data which represent the relation between modulation amplitude and frequency of a sinusoidally modulated light stimulus for constant flicker appearance have been employed to predict characteristics of rectangular waveforms which will be of the same flicker appearance. Predictions are compared with the results of an experiment in which such rectangular waveforms were employed.—*Journal abstract.*

2336. Dixon, Norman F. **Feedback and the visual threshold.** *J. Commun.*, 1962, 12(2), 97-105.—A test of the hypothesis that "threshold changes in a situation allowing perceptual defense but not voluntary suppression were central in origin" was made using a schizophrenic experimental and a normal control group. Ss moved a lever to adjust the brightness of a light spot while subliminal stimuli (emotional and neutral words) were presented visually. The results showed significant differences between the groups and suggest the possibility of there being 2 quite separate mechanisms for the regulation of perceptual thresholds: one using a neural feedback

system normally outside of voluntary control, the other using a feedback device normally under full voluntary control.—*D. E. Meister.*

2337. Erdmann, Robert L. (IBM Corp., San Jose, Calif.) **Brightness discriminations with constant duration intermittent flashes.** *J. exp. Psychol.*, 1962, 63(4), 353-360.—The probability of detection of constant duration intermittent flashes was studied as a function of flash frequency with flash luminance and background luminance as parameters. "The increase in the number of chances for flash detection with increasing flash frequency may account for the initial increase in probability of detection that occurs for all luminance values. The decreases in detection probability for the higher flash frequencies at the higher background luminance levels can possibly be attributed to a period of diminished sensitivity that is dependent upon the time interval between flashes. The failure to observe this effect at the lowest background luminance can possibly be attributed to a difference in critical duration."—*J. Arbib.*

2338. IArbus, A. L. (Inst. Biological Physics, Moscow, USSR) **Vospriatie izobrazhenii, nepodviznykh otnositel'no setchatki i izmeniaushchikhsia po tsvetu.** [The perception of images, motionless with respect to the retina and changing in color.] *Biofizika*, 1962, 7(3), 333-335.—Utilizing 4 Ss, it is shown that any suprathreshold increase of light, falling on an "empty field," does not reveal the characteristics of the test-field and is perceived only as an increase in light. However, any suprathreshold decrease of such light discloses the characteristics of the test-field, but the color discerned is distorted. While the threshold of perceived changes of color depends on the background, this dependence is preserved even when the background is not perceived due to immobility with respect to the retina.—*I. D. London.*

2339. Luria, S. M., & Sperling, H. G. (Honeywell Research Cent., Hopkins, Minn.) **Phase relations in flicker fusion.** *J. Opt. Soc. Amer.*, 1962, 52(9), 1051-1057.—The luminance at which the flicker of a white test light was perceived was determined as a function of the phase angle between the light and pulsing white, green, yellow, red, and blue surround fields which were equated for brightness. It was found that the luminance thresholds for perceived flicker increased when the test light and the surround were in phase. The amount of increase varied as a function of the color of the surround, being a maximum for white, less for green, still less for yellow, and a minimum for red and blue. No difference in absolute threshold were found as a function of phase for 1-sec. observation periods of the test flash. The results are discussed with reference to the differences in amplitude as a function of the surround wavelength as well as to submaxima found in the luminance functions.—*Journal abstract.*

2340. Marimont, Rosalind B. (National Inst. Mental Health, Bethesda, Md.) **Model for visual response to contrast.** *J. Opt. Soc. Amer.*, 1962, 52(7), 800-806.—A simple steady-state model is proposed to explain a well-known phenomenon of subjective brightness, namely that high illuminance greatly increases the apparent contrast of a scene. This effect is obtained in the model by making both the reference level and gain of the system depend on

the average illumination. The numerical values of the system parameters evaluated from published data of Hurvich and Jameson are in good agreement with those derived from independent experiments of S. S. Stevens. The basic model can be improved by modifications which make it show qualitatively the stabilized retinal image effect, and edge effects such as Mach bands. The physiological plausibility of the model is discussed briefly and no implausible requirements are found.—*Journal abstract.*

2341. Mikhalevskaia, M. B. (Moscow State U., USSR) O vozmozhnosti ispol'zovaniia nekotorykh svoistv kozhno-gal'vanicheskogo refleksa pri opredelenii poroga. [Possible use of some features of the GSR in threshold determination.] *Dokl. Akad. Pedagog. Nauk RSFSR*, 1962, No. 1, 109-112.—EEG and GSR of 40 Ss were recorded while the Ss were tested for visual threshold by the method of minimal changes. 3 aspects of the GSR were used as threshold indicators—RT, duration, and amplitude. RT was found to be the best indicator of the stimulus intensity.—*A. Cuk.*

2342. Ogle, Kenneth N. (Mayo Clinic & Mayo Found., Rochester, Minn.) Blurring of retinal image and foveal contrast thresholds of separated point light sources. *J. Opt. Soc. Amer.*, 1962, 52 (9), 1035-1039.—Foveal contrast thresholds of the light-adapted eye were measured for 2 point light sources, whose separation could be varied, and for different degrees of out-of-focus imagery. The data for sharp imagery were similar to those obtained by Van den Brink for the dark-adapted eye. It appears that for separations of the point sources from zero to about 3 min. of arc the contrast threshold increases linearly. Approximately 3 min. of arc (depending upon pupil diameter) is a critical angle of separation, because for greater separation the threshold remains constant. This is interpreted to indicate no overlapping of blur disks, no integration of luminous energy, and no inhibition of the 2 images for separations greater than this critical angle. Blurring of the images of the points increased the critical angle only slightly. This implies that the distribution of illumination within the blurred image cannot be predicted from geometrical considerations.—*Journal abstract.*

2343. Onley, Judith Wheeler, & Boynton, Robert M. (U. Rochester) Visual responses to equally bright stimuli of unequal luminance. *J. Opt. Soc. Amer.*, 1962, 52(8), 934-940.—Conditioning stimuli of differing luminances, which appear equally bright because of the effects of previous light adaptation, may produce essentially equivalent on-responses, as evaluated by the temporal changes in the threshold of a superimposed test flash. The magnitude of these responses is directly related not to the actual luminance of the conditioning stimulus in each case, but to its brightness. Over a fairly wide range of conditions of light adaptation and brightness, constant brightness is accompanied by constant changes in log visual sensitivity, as assessed both by an increment threshold and the conditioning-stimulus-test-flash-threshold techniques. Only at intermediate sensitivity levels is there any evidence for a simple "filter factor" model for the light-adaptation mechanism. The visual response at the extremes of the sensitivity range appears to approach physiological limits which render a simple model of the effects of light adaptation untenable.—*Journal abstract.*

2344. Stary, D. (Centar za Profesionalnu Orijentaciju Omladine, Zagreb) Utjecaj različitog intenziteta treptavog svijetla na naknadnu frekvenciju fuzije. [Effect of flickering light of different intensity on critical fusion frequency.] *Arh. Hig. rada*, 1960, 11, 1-7.—The stimulation of the eye by subfusional flickering of light reduces CFF 4 Ss were stimulated for 30 sec. with different subfusional frequencies of light intensity of 12 nits, and greatest reduction of cff was found with the stimulating frequency of 15 per sec. Performing the same experiment, but with 50 nits, Bujas obtained the greatest reduction with stimulating frequency of 20 per sec. This leads to a hypothesis that the experience of flickering light with the frequency of 15 per sec. and the intensity of 12 nits is subjectively equal to that of 20 per sec. and of 50 nits. This difference seems to depend on the intensity of light. CFF depends on the functional state of the centers disregarding various peripheral processes which cause it.—*B. Petz.*

2345. Taylor, Nelson W. (Minnesota Mining & Manufacturing Co., St. Paul) Foveal vision: Dependence of threshold energy on the visual angle of a circular target. *J. Opt. Soc. Amer.*, 1962, 52 (7), 820-825.—It is shown that circular nonmoving targets detected at threshold, which appear as a "point source" for low values of the subtended visual angle (target diameter), pass smoothly into a subjective annular shape for larger diameters. The annulus is the locale of the luminance gradient and therefore provides the significant visual information. The annulus width is 0.9 min. of arc when the adapting luminance B is 10^2 ft-L and rises to 1.3 min. as B falls to 10^{-8} ft-L. Because of this continuous transition from a point source to an annulus, the "critical visual angle" is at best only an approximation. Over a range of B from 10^{-8} to 10^2 ft-L and a duration of stimulus from 10^{-2} to 1 sec. the threshold energy for a point source rises 140 fold. The corresponding rise in the threshold energy per square min. of annulus area is about 1600 fold. The trends in threshold energy and in threshold contrast with increasing target size are believed to measure some of the effects of retinal (or neural) interaction and inhibition in the human fovea.—*Journal abstract.*

2346. Wolf, Ernst, & Morandi, Anthony J. (Massachusetts Eye & Ear Infirmary, Boston) Retinal sensitivity in the region of the blind spot. *J. Opt. Soc. Amer.*, 1962, 52(7), 806-812.—Threshold sensitivity was studied in 2 observers along lines running vertically and horizontally through the region of the optic disk. When the test field fell entirely on the disk the luminance of test flashes of 0.04-sec. duration could be raised to a level high enough to cause an excitation. Under these conditions the luminance may be 1-2 log units higher than that required for excitation of retinal regions adjacent to the disk. It is assumed that the excitation was brought about by scatter of light in the ocular media. This assumption was supported by the fact that (a) differences in sensitivity were found between the 2 observers due to changes in transmittance of the dioptric media with age, and (b) that when test fields of various sizes (1° , 2° , 5° , and 10°) were projected into the disk area and dark adaptation was studied, bipartite dark-adaptation curves were obtained which indicated the participation of rods and cones. The size of the disk area as determined by excitability measurements cor-

responds to that found in tangent screen tests. The nasal edge of the disk is more precisely defined than the temporal edge, a fact which is accounted for by the relatively greater sensitivity of the retinal elements in the nasal area.—*Journal abstract.*

2347. Yonemura, Gary Toshi. (Columbia U.) Luminance threshold as a function of angular distance from an inducing source. *Dissert. Abstr.*, 1961, 22(4), 1267.—*Abstract.*

2348. Yonemura, Gary T. (Columbia U.) Luminance threshold as a function of angular distance from an inducing source. *J. Opt. Soc. Amer.*, 1962, 52(9), 1030-1034.—This experiment is concerned with the distance at which a light spot disappears from the edge of a large inducing source. Considerations relative to luminance discrimination are introduced, and it is demonstrated that the results of the present experiment are describable as having some of the formal characteristics of that type of discrimination. It was observed that the border of the inducing field appeared to shift with luminance changes of the test spot. As a first approximation the results of this experiment could be accounted for by a stray-light hypothesis.—*Journal abstract.*

Eye Movements

2349. Gardner, Riley W., & Long, Robert I. (Menninger Found.) Control, defence and centration effect: A study of scanning behaviour. *Brit. J. Psychol.*, 1962, 53(2), 129-140.—"In the present study, electrooculography was employed to obtain precise measures of the scanning strategies 60 subjects employed in four size estimation tests. In addition to providing evidence of consistent individual scanning syndromes, the study showed that extensiveness of scanning is a determinant of apparent size in the relatively difficult size estimation test in question. The study also confirmed Piaget's hypothesis (see Piaget, 1961) that the apparent size of a stimulus is a function of the duration of a single centration upon it. Subjects were shown to be consistently different from each other in these centration effects, independent of the significant negative correlation of the effect with age. These individual differences were significantly associated with the apparent size of standard stimuli in a relatively simple size estimation test."—C. T. Morgan.

2350. Luria, R. A., & Homskaya, E. D. (Moscow U.) An objective study of ocular movements and their control. *Psychol. Beitr.*, 1962, 6(3-4), 598-606.—A photoelectric registration of ocular movements in different forms of control showed that ocular movements regulated by verbal instruction and without visual afferentation had in all cases a saccadic character, whereas ocular movements tracing an oscillating luminous spot were smooth and isomorphic to the path of the moving object. When the velocity of these oscillations increased the structure of ocular movements changed and they turned into saccadic movements. A study of patients with local lesions of the brain showed that a lesion of the anterior oculomotor zones results in a deterioration of "voluntary" eye movements with a persistence of visually afferented tracing movements, whereas a lesion of posterior oculomotor zones had an opposite effect. (French & German summaries)—H. J. Priester.

2351. Stockbridge, H. C. W. (War Office, Great Britain) Winking: A note. *Percept. mot. Skills*,

1962, 14(3), 380.—In connection with a sighting problem, it became necessary to know how many people could produce a wink, or willed monocular blink, with either eye. A set of 3 slides was prepared for a stereoscopic viewer, that required winking for a solution to a task. It was concluded that 3% of Ss would not be able to close either eye at will.—W. H. Guertin.

CHEMICAL SENSES

SOMESTHESIS

2352. Egorov, A. S., & Zakhariants, Iu. Z. (Inst. Physical Culture, Leningrad, USSR) Élektrofiziologicheskoe issledovanie kinestezicheskogo analizatora: Soobshchenie II. Vremennye komponenty dvizheniya. [Electrophysiological research of the kinesthetic analyzer: Communication II. Temporal components of movement.] *Dokl. Akad. Pedag. Nauk RSFSR*, 1962, No. 1, 113-116.—The EMG of 6 Ss was recorded while Ss were moving their arm in the up and down direction. The duration of movement was under study. Movement was performed under different conditions (passive and active, controlled and uncontrolled movement). The main result was that "the kinesthetic analysis of the duration of movement takes place on the basis of interruptions in the uninterrupted stream of muscular stimulations corresponding to the limits of the temporal intervals that we are looking for."—A. Cuk.

2353. Ellis, H. C., & Bessemer, D. W. (U. New Mexico) Associative scaling of random tactual stimuli. *Percept. mot. Skills*, 1962, 14(1), 89-90.—3 measures of association values for 8 random tactual shapes were determined using a modification of Noble's (1952) method. The obtained tactual values appeared comparable to reported association values for equivalent visual shapes. Correlations among the 3 measures suggested: (a) an increase in the average latency of responses associated with a stimulus as the total number of such associates increases, and (b) the rank-ordering of stimuli by the common methods of associative scaling may depend to some extent on the duration of the association period.—W. H. Guertin.

2354. Green, Robert T. (University Coll. London, England) The absolute threshold of electric shock. *Brit. J. Psychol.*, 1962, 53(2), 107-115.—"Thresholds for electric shock were obtained under twelve conditions. Three types of stimulus were used; constant voltage, constant current, and constant power. These, combined with three sizes of electrode, gave nine conditions in all. A further three thresholds were obtained using the three types of stimulus and the medium size electrodes, with the addition of electrode jelly to improve contact. The results indicated that power is the relevant variable, and that sensitivity to threshold shocks probably depends on the amount of power dissipated in the immediate vicinity of the skin receptors. . . . The influence of ambient temperature and humidity were found to be inoperative within the limits investigated. . . . [There] would appear to be sound arguments for using a constant wattage a.c. stimulus to counteract the variations in the impedance of a biological circuit."—C. T. Morgan.

2355. Gonda, T. A. (Stanford U.) Some remarks on pain. *Bull. Brit. Psychol. Soc.*, 1962, 47, 29-35.—A distinction between pain at a personal or subjective level, and pain at an interpersonal or "pain behavior" level is drawn. The state of research on pain

in light of this distinction is briefly reviewed, and a study on the interpersonal level suggesting a relation between pain complaint, family size, and age ($p < .001$) is reported.—C. C. Kiernan.

2356. Riisager, P. M. (United Oxford Hosp., Oxford, England) A clinical study of the numerical variation with age of compact nerve endings in the human conjunctiva. *J. Neurol. Neurosurg. Psychiat.*, 1962, 25(2), 134-136.—"A technique for the staining of conjunctival nerve fibres at the bed side is described. The number of compact nerve endings occurring in the eyes of three subjects, who had no clinical involvement of the trigeminal nerves, was estimated. These endings are probably caused by degenerative and/or regenerative changes. Half the endings in the scleral conjunctiva of each eye were found in the supero-lateral quadrant, and the fewest endings in the infero-medial quadrant. This variation is probably related to the exposure of the sclera to the atmosphere. The number of compact endings increases directly with age."—M. L. Simmel.

2357. von Békésy, Georg. (Harvard U.) Can we feel the nervous discharges of the end organs during vibratory stimulation of the skin? *J. Acoust. Soc. Amer.*, 1962, 34(6), 850-856.—"The vibratory pitch sensation is a complicated function of both the frequency and the amplitude of the vibrations, and frequency discrimination on the skin is thus inaccurate within a range of one or two octaves. Rutherford's telephone theory for pitch discrimination does not describe the pitch of vibratory sensations."—A. M. Small, Jr.

2358. Weinstein, S. (Albert Einstein Coll. Medicine) Tactile sensitivity of the phalanges. *Percept. mot. Skills*, 1962, 14(3), 351-354.—Pressure sensitivity was determined in the 3 phalanges of the 4 fingers of each hand in a male and in a female S. 24 daily measures were taken for each of the 12 phalanges in both Ss (576 thresholds). The left hand of each S was significantly more sensitive than the right hand. The distal phalanx was significantly more sensitive than each of the 2 proximal phalanges. The proximal phalanx was more sensitive than the middle phalanx. The relationship of distality and use of the parts to tactual sensitivity is discussed.—W. H. Guertin.

HEARING

2359. Anderson, Clint DeWitt. (Indiana U.) A six-interval observation experiment in audition. *Dissert. Abstr.*, 1961, 22(5), 1720.—Abstract.

2360. Flanagan, James L. Models for approximating basilar membrane displacement: II. Effects of middle-ear transmission and some relations between subjective and physiological behavior. *Bell Sys. tech. J.*, 1962, 41(3), 959-1009.—The report describes a rational function approximation of middle-ear transmission. This result, in combination with previously derived models for the inner ear, permits an analytical approximation of basilar membrane displacements in both apical and basal regions. Because the models are rational functions, they can, if desired, be simulated by lumped-constant electrical networks. Their computational tractability also permits straightforward approximations to temporal and spatial derivatives of displacement. Relations between computed membrane displacement and subjective behavior are illustrated for pitch percep-

tion, binaural lateralization, binaural time-intensity trade, threshold discrimination, and pure-tone masking.—A. M. Small, Jr.

2361. Jeffress, Lloyd A. (U. Texas) Absolute pitch. *J. Acoust. Soc. Amer.*, 1962, 34(7), 987.—"It is suggested that absolute pitch, while found almost exclusively among musical families, is not inherited, but rather, that acquiring it partakes of the nature of 'imprinting'—a peculiar type of early learning."—A. M. Small, Jr.

2362. MacDorman, Carroll Fredric. (U. Arizona) The effects of variations of rhythmical components upon the accuracy of synchronization. *Dissert. Abstr.*, 1961, 22(3), 924.—Abstract.

2363. Tobias, Jerry V., & Jeffress, Lloyd A. (U. Texas) Earphone response and onset time. *J. Acoust. Soc. Amer.*, 1962, 34(6), 857-858.—"Measurements were made of the transient response of PDR-8 earphones. These data indicate that the original estimate of the onset duration of auditory stimuli can be revised downward to 0.8 msec. Implicit in the results is a caveat on the faith one should have in the output of commonly used earphones for short signals."—A. M. Small, Jr.

Measurement

2364. Blodgett, Hugh C., Jeffress, Lloyd A., & Whitworth, Randolph H. (U. Texas) Effect of noise at one ear on the masked threshold for tone at the other. *J. Acoust. Soc. Amer.*, 1962, 34(7), 979-981.—"It has been found that when noise and signal are presented at one ear and noise alone to the other, the threshold for a tonal signal is lower than when the signal too is presented to both ears. The present study is concerned with this phenomenon as a function of the level of noise in the ear not receiving the signal, and as a function of the noise level in both ears. Findings indicate that the signal level must be increased as noise level increases and this increase is more rapid for the monaural than for the binaural condition."—A. M. Small, Jr.

2365. Corso, J. F. (Pennsylvania State U.) Bodily position and auditory thresholds. *Percept. mot. Skills*, 1962, 14(3), 499-507.—The purpose of the study was to determine the effects of bodily position on the threshold of hearing for pure tones. The main effects of position, frequency, and Ss were all significant at the .01 level. The results tend to support the general hypothesis of sensory interaction produced by the simultaneous stimulation of the auditory and vestibular modalities. The magnitude of the interaction effect, however, is probably too small to be of any practical significance.—W. H. Guertin.

2366. Craig, James Harvey. (U. Texas) The effect of phase on the quality of a two-component tone. *Dissert. Abstr.*, 1961, 22(6), 2074.—Abstract.

2367. Creelman, C. Douglas. (U. Michigan) Human discrimination of auditory duration. *J. Acoust. Soc. Amer.*, 1962, 34(5), 582-593.—A series of experiments measured human ability to discriminate between durations of auditory signals and the increment duration, ΔT . A decision-theoretical model is presented, based on a "counting mechanism," which operates on impulses generated over the relevant durations. The source of these impulses is assumed to be random. Limitations on performance come from uncertainty regarding the end points of the time in-

terval and from limited memory. The decision processes underlying the model are presented as a general theory of duration discrimination.—*A. M. Small, Jr.*

2368. de Boer, E. Note on the critical bandwidth. *J. Acoust. Soc. Amer.*, 1962, 34(7), 985-986.—Data from 17 experiments are plotted on a single graph and compared with respect to the size of the auditory critical band. An attempt is made to explain discrepancies present in this graph.—*A. M. Small, Jr.*

2369. Diercks, K. Jerome, & Jeffress, Lloyd A. (U. Texas) Interaural phase and the absolute threshold for tone. *J. Acoust. Soc. Amer.*, 1962, 34(7), 981-984.—"The present study agrees with earlier ones that the binaural absolute threshold is about 3 db lower than the monaural. It also finds that reversing the interaural phase of the signal lowers the threshold still further. The findings are shown to indicate the likelihood that so-called absolute thresholds are really masked thresholds, with the masking noise present internally and exhibiting a small positive correlation."—*A. M. Small, Jr.*

2370. Goldburt, S. N. (Ukhtomskii Physiological Inst., Leningrad, USSR) Svoebrazie krivyykh sil'y-ditel'nosti vozhuzhdennoy slukhovogo analiza-tora cheloveka v usloviyakh posledestviia tonal'nogo razdrzheniia (na fone tak nazyvamoj ostatochnoi maskirovki). [Peculiarities of intensity-duration curves of the excited auditory analyzer in man during aftereffect of tonal stimulation (against background of so-called residual masking).] *Biophysika*, 1962, 7(3), 336-344.—The author discusses the results of a study on "intensity-duration curves of the excited auditory analyzer," which are ascertained in accordance with P. O. Makarov's "principle of dynamic measurement of thresholds at different intervals in the development of excitation." These curves are distinguished by their greater steepness as compared with those measured in quiet.—*I. D. London.*

2371. Goldstein, David P., Hayes, Claude S., & Peterson, John L. (U. Wisconsin) A comparison of bone-conduction thresholds by conventional and Rainville methods. *J. speech hear. Res.*, 1962, 5(3), 244-255.—12 Ss with sensorineural hearing losses, 13 with conductive hearing losses, and 12 with mixed hearing losses were used to compare Rainville bone-conduction thresholds to conventional bone-conduction thresholds. The 2 methods for the sensorineural group closely approximated each other. For the conductive and mixed hearing loss groups the thresholds obtained by the 2 techniques were similar at 2000 and 4000 cps but significantly different at 250 and 500 cps, with the Rainville technique yielding higher thresholds.—*M. F. Palmer.*

2372. Guttman, Newman, & Pruzansky, Sandra. (Bell Telephone Lab., Murray Hill, N. J.) Lower limits of pitch and musical pitch. *J. speech hear. Res.*, 1962, 5(3), 207-214.—9 listeners were selected from the chorus of the Bell Telephone Laboratories on the assumption that they could make accurate octave matches at ordinary frequency level and had no hearing defects. The lower limit of pitch perception in these listeners was 19 cps. With the same stimulus an attempt was also made to assess the lower limit of musical pitch, which seemed to be 60 cps. Perception is too weak to support octave perception in the range from 19 to 60 cps. A stimulus consisting of a train of uniform unipolar pulses is appropriate to the study of pitch.—*M. F. Palmer.*

2373. Hamilton, P. M. (Philco Corp., Palo Alto, Calif.) Underwater hearing thresholds. *J. Acoust. Soc. Amer.*, 1962, 34(6), 857.—Several factors are suggested which may account for differences between data gathered in 2 recent experiments by Hamilton and by Montague & Strickland (see 32: 4999; 36: 4BM76M).—*A. M. Small, Jr.*

2374. Indiana University Hearing and Communication Laboratory. Final report for Contract AF 19(604)-1962. *USAF ESD tech. Rep.*, 1961, No. 61-49. v, 28 p.—20 abstracts of research on receiver operating characteristics in the detection and recognition of auditory signals in noise from 1956 to 1961.—*N. B. Gordon.*

2375. Lochner, J. P. A., & Burger, J. F. (National Physical Research Lab., Pretoria, South Africa) Pure-tone loudness relations. *J. Acoust. Soc. Amer.*, 1962, 34(5), 576-581.—Using 3 sets of independently established equal loudness contours and making certain assumptions regarding the relation between loudness and stimulus intensity, a set of curves of loudness as a function of frequency with intensity as parameter is presented.—*A. M. Small, Jr.*

2376. Loeb, Michel, & Fletcher, John L. (USA Medical Research Lab., Fort Knox) Reliability and temporal course of temporary and contralateral threshold shifts. *J. speech hear. Res.*, 1962, 5(3), 284-291.—Reliabilities of temporary threshold shift (TTS) and contralateral threshold shift (CTS) were measured at varying intervals after initiation or production by click or noise stimuli. CTS reliabilities ranged from low to moderate. TTS reliability was higher, especially immediately after exposure, but TTS reduction reliability would presumably be lower.—*M. F. Palmer.*

2377. Rittman, Paul Anthony. (U. Oklahoma) Pure-tone masking by narrow noise bands in normal and impaired ears. *Dissert. Abstr.*, 1961, 22(4), 1266.—Abstract.

2378. Studebaker, Gerald A. (U. Oklahoma Medical Cent.) On masking in bone-conduction testing. *J. speech hear. Res.*, 1962, 5(3), 215-227.—Functional separation of 2 ears during bone-conduction testing requires the use of contralateral masking. The author presents a formula for deriving the required noise level for each S. Narrow-band noise requires less intensity to produce a given pure-tone threshold shift than broad-band noise. Noise presented to one ear elevates the threshold of the opposite ear at noise levels which are not sufficient to produce peripheral masking. An earphone designed to reduce the area of the head exposed to a masking noise increases the interaural attenuation.—*M. F. Palmer.*

Speech Perception

2379. Gold, Bernard. (Lincoln Lab., Lexington, Mass.) Computer program for pitch extraction. *J. Acoust. Soc. Amer.*, 1962, 34(7), 916-921.—It is assumed that pitch extraction obtained by visual inspection of a speech wave is the best pitch extraction obtainable. A computer program has been written which aims to detect pitch as well as this ideal. For most of the sentences tried, the computer results were as good as the "ideal."—*A. M. Small, Jr.*

2380. Lieberman, Phillip, & Michaels, Sheldon B. (Air Force Cambridge Research Lab., Bedford, Mass.) Some aspects of fundamental frequency and envelope amplitudes as related to the emo-

tional content of speech. *J. Acoust. Soc. Amer.*, 1962, 34(7), 922-927.—3 male native speakers of American English read 8 neutral test sentences in certain "emotional" modes, i.e., as a question, an objective statement, a fearful utterance, etc. Tapes were recorded and presented to separate groups of naive Ss who categorized the emotional modes in forced judgment tests. Results of the tests show that with unprocessed speech, the listeners were able to correctly identify the emotional content 85% of the time. When only pitch information was presented, correct identification was made 44% of the time. When amplitude information was added to the pitch information, the identification rose to 47%. A 120-cps monotone with amplitude information derived from the original speech envelope amplitude resulted in 14% identifications.—A. M. Small, Jr.

2381. Moser, H. M., & Fotheringham, W. C. **Intelligibility of beginning and ending consonants with the vowel [I].** *USAF ESD tech. Note*, 1961, No. 61-37. (Ohio State Res. Found. Proj. 1080, tech. Rep. 65) 19 p.—Consonants and consonant clusters with the vowel (I) were formed into CV and VC stimuli and were spoken by male and female speakers in random noise to phonetically trained listeners. The study provided the bases for the following conclusions. The rank order of consonant intelligibility varies with speakers but is significantly more stable for initial consonants and for speakers of the same sex. Final consonants are more intelligible than initial consonants. Confusions among initial and final consonants are similar. Confusions are most frequent among members of the same class of consonants, e.g., stops, fricatives, nasals. Consonant clusters tend to be less intelligible than single consonants. Confusions for consonant clusters are similar in class to component sounds of a cluster. Given the intelligibility values of consonants composing a cluster, no definitive prediction can be made of the intelligibility of the cluster.—N. B. Gordon.

2382. Ohio State University Research Foundation. **Consonant intelligibility with selected vowels in quiet and noise.** *USAF ESD tech. Note*, 1961, No. 61-36. 9 p.—"Nineteen consonants and the vowel in isolation were paired . . . to form CV and VC syllables. The results support the general conclusion that low signal intensity is a satisfactory substitute for masking noise in testing consonant intelligibility. Testing conditions of comparable difficulty produce approximately the same intelligibility values, and similar confusion frequencies."—N. B. Gordon.

2383. Schubert, Earl D., & Schultz, Martin C. (Indiana U.) **Some aspects of binaural signal selection.** *J. Acoust. Soc. Amer.*, 1962, 34(6), 844-849.—2 experiments are reported which measure the increase in intelligibility occasioned by listening binaurally to running speech imbedded in interfering signals. In the 1st experiment, the frequency range of the speech is restricted to 1 of 3 ranges and the interfering signal is broad-band random noise. Under difficult listening the lowest frequency range shows a binaural improvement of 33% for a change in interaural polarity, and of 28% for an interaural time disparity of 500 μ sec. The middle- and high-frequency ranges show less binaural gain. The 2nd experiment compares the effects of different speech waves masking the wanted speech in binaural listening. The binaural system helps most when the interfering wave

is the speaker's own voice or a multiple mixture of many voices. The measured differences between homophasic and binaural listening are small but statistically reliable. The interaural differences employed (time delay and polarity reversal) are no help when the interfering wave is a female voice, another male voice, or the multiple mixture played backward.—A. M. Small, Jr.

2384. Swets, John A., Millman, Susan H., Fletcher, William E., & Green, David M. (Bolt Beranek & Newman, Cambridge, Mass.) **Learning to identify non-verbal sounds: An application of a computer as a teaching machine.** *J. Acoust. Soc. Amer.*, 1962, 34(7), 928-935.—"The procedures of automated instruction-continual interrogation and overt response, immediate knowledge of results, presentation of successive items conditional upon previous performance, learner-controlled pacing of the lesson, and so forth were applied to the task of learning to identify multidimensional, nonverbal sounds. These procedures produced results that are comparable to those obtained previously with conventional training methods. Certain of the central features of automated instruction were found to hinder learning in the task studied."—A. M. Small, Jr.

2385. Webster, John C., & Klumpp, Roy G. (USN Electronics Lab., San Diego, Calif.) **Effects of ambient noise and nearby talkers on a face to face communication task.** *J. Acoust. Soc. Amer.*, 1962, 34(7), 936-941.—From 1 to 5 talker-listener pairs, talkers seated shoulder-to-shoulder on one side of a table with listeners on the other, communicated word lists in conditions of quiet and noise. Each talker read 1 word at a time to his listener-partner, who repeated back each word for verification by the talker. Talker-listener pairs were instructed to maintain an accuracy of 90% or better. For the lower noise levels, the speech level of a central pair increased about 5 db for an additional 10 db of noise or for each doubling of the number of pairs around them. The rate of utterance decreased with noise but showed no clear-cut pattern of change as the number of additional talkers was varied. In general, for a constant noise level, increasing the number of talkers results in increasing errors; and for 3 or fewer talker-listener pairs, percent error does not increase until the ambient-noise level reaches 85 db.—A. M. Small, Jr.

PARAPSYCHOLOGY

2386. Casler, L. (345 Riverside Dr., N. Y.) **The improvement of clairvoyance scores by means of hypnotic suggestion.** *J. Parapsychol.*, 1962, 26, 77-87.—A preliminary experiment gave significantly higher ESP scores after hypnotic suggestions of confidence and improved performance but not after waking suggestions. Following this lead, a new experiment was designed to test the effect of hypnosis upon ESP. The investigation involved 15 Ss, each of whom did 100 standard card trials in the trance state with suggestions and 100 trials in the waking state without suggestions. The hypnosis ESP trials were significantly higher in scores. While a definite interpretation must wait for further research, the results may offer a way of gaining better control over psi phenomena.—J. G. Pratt.

2387. Forwald, H. (Box 4611, Ludvike, Sweden) **A PK dice experiment with doubles as targets**

and non-targets. *J. Parapsychol.*, 1962, 26, 112-122. —2 dice were thrown for "doubles" (identical faces on the 2 dice) until a specified number of doubles had been obtained. In one subseries the E, acting as his own S, concentrated upon having the doubles appear in as few throws as possible, and in another subseries, he tried to take as many throws as possible, in getting the same number of doubles. The results come out in agreement with the S's intention, with $P < 10^{-4}$. A statistic appropriate for testing significance when the variable is the number of trials is described and applied.—J. G. Pratt.

2388. Freeman, J. A. (Duke U.) **An experiment in precognition.** *J. Parapsychol.*, 1962, 26, 123-130.—Ss from a college undergraduate population were challenged to show that they could do better at an ESP test of precognition than on one of clairvoyance. To build confidence, the E pointed out that precognition is the most frequent form of ESP in the spontaneous experiences from everyday life. A complicated routinized procedure was followed to insure the use of future targets chosen without any subjective influence. In a series set in advance at 1000 trials the precognition results were significant at the .011 level, while the clairvoyance trials scored slightly below mean chance expectation.—J. G. Pratt.

2389. Rhine, L. E. (Duke U.) **Psychological processes in ESP experiences: I. Waking experiences.** *J. Parapsychol.*, 1962, 26, 88-111.—In a collection of more than 7000 cases of spontaneous parapsychical experiences, approximately 2000 that were incomplete in some respect were analyzed for clues regarding the psychological processes involved in the emergence of ESP experiences into consciousness. The present paper deals with cases drawn from waking life, and they are classified under the headings of intuitive experiences and hallucinations. The ESP act appears to become separated into elements at the unconscious level. In the former group only the feeling or conative aspects reach consciousness, while in the latter the experience is projected in terms of a sensory modality. The findings suggest that laboratory tests of ESP may be giving only a conservative indication of the S's ability.—J. G. Pratt.

2390. Rhine, L. E. (Duke U.) **Psychological processes in ESP experiences: II. Dreams.** *J. Parapsychol.*, 1962, 26(3), 172-199.—In this paper the study of incomplete parapsychical experiences from everyday life is extended to dreams to find the psychological processes involved. In realistic dreams, the content-bearing imagery is not an automatic reproduction of reality, but the content is accomplished in several ways below the level of consciousness under the influence of personal factors. Unrealistic dreams show that such personal factors may lead to an association of ideas before the imagery is formed. Thus, the examination of both waking and dream experiences in the complete study indicates that psychological processes below the level of consciousness are involved which begin with the initial judgment and extend to the final interpretation of the imagery.—J. G. Pratt.

2391. Rice, G. E., & Townsend, J. (Agnes Scott Coll., Decatur, Ga.) **Agent-percipient relationship and GESP performance.** *J. Parapsychol.*, 1962, 26(3), 211-217.—The hypothesis was that, in a sender-receiver ESP test, pairs of Ss who share a close emotional relationship would score higher than couples

who were not close. 4 man-woman pairs who were close and 4 who were not were tested with ESP cards. Each member of each pair completed 4 runs as receiver and 4 runs as sender. For all the runs, the sender and the receiver were in separate rooms with a solid wall between and with the E sitting where she could see both of them. The 32 runs for the emotionally-related group yielded 48 hits over mean chance expectation, and the unrelated group in the same number of runs scored 45 hits fewer than expected. Thus, both groups are highly significant statistically but with opposite directions of deviation.—J. G. Pratt.

2392. Rýzl, M., & Rýzlová, J. (Rybalkova 4, Prague, Czechoslovakia) **A case of high-scoring ESP performance in the hypnotic state.** *J. Parapsychol.*, 1962, 26(3), 153-171.—The S was tested for ESP of targets providing a 50-50 basis of choice. The targets were presented in random order in opaque covers with safeguarding conditions assured by a 2 E plan. In Series I, with the S hypnotized by the E calls for 2000 separate targets produced 1144 hits ($P = 10^{-9}$). In Series II, with the S in an autohypnotic state, 100 targets sealed in envelopes were called 10 times each in the presence of the E, followed by 10 times the S working alone. By the majority vote principle, the calls made in the presence of the E were correct for 66 targets and incorrect for 27 (with tie votes for the remaining 7). By chi square, the ratio of 66/27 where an equal distribution is expected yields $P = .00008$. The results suggest that more reliable control over ESP can be achieved through hypnosis.—J. G. Pratt.

2393. Shields, E. (4840 W. 139th St., Hawthorne, Calif.) **Comparison of children's guessing ability (ESP) with personality characteristics.** *J. Parapsychol.*, 1962, 26(3), 200-210.—The E, an elementary-school psychologist, incorporated an ESP test into the usual interviewing and testing of pupils referred to her. The ESP tests, especially designed to appeal to children, yielded statistically significant results with striking positive scores being contributed by those Ss who were not psychologically withdrawn in their social relations. Those Ss who were classified as withdrawn gave scores that were generally below mean chance expectation. No significant correlation was found between ESP and sex, age, or intelligence.—J. G. Pratt.

2394. Sinclair, Upton. **Mental radio.** Springfield, Ill.: Charles C Thomas, 1962. xv, 237 p. \$8.50.—Contains the complete text of the 1929 edition plus a reprint of the lengthy 1932 commentary on that text by the Research Officer of the Boston Society for Psychic Research. The original text describes the Sinclairs' careful studies of Mrs. Sinclair's telepathic and clairvoyant abilities.—R. S. Harper.

ENVIRONMENTAL EFFECTS

2395. Jackson, C. Wesley, Jr., & Pollard, John C. (U. Michigan) **Sensory deprivation and suggestion: A theoretical approach.** *Behav. Sci.*, 1962, 7(3), 332-342.—Evidence is presented that the "hallucinations" and "delusions" found in sensory deprivation are not due to disorganization within the individual either on a physiological or psychological level, and they were not primarily due to the various manipulations of such physical dimensions as stimulus patterning, stimulus intensity, social isolation etc.

Some doubt is expressed as to whether these phenomena are the same as psychotic behaviors or have a common causal basis. The present explanation is on the basis of the S's knowledge of what is "appropriate" or "expected," the S's motivations to either report or not report these "appropriate" experiences, and the use of continuous reporting or "free associative" instructions. (50 ref.)—*J. Arbib.*

2396. Levy, Edwin Z. The subject's approach: Important factor in experimental isolation? *Bull. Menninger Clin.*, 1962, 26(1), 30-42.—Studies of experimental isolation have involved a wide scope of differences in sense limiting techniques, in Ss used, in effects reported, and in explanations offered of results. The S's approach to the experiment and such issues as the degree of control he can exert and the amount of communication between S and observer must be considered. Particular reference is made to the Aerospace Medical Laboratory studies of isolation.—*W. A. Varvel.*

SLEEP & FATIGUE

2397. Berger, Ralph J., & Oswald, Ian. (U. Edinburgh, Scotland) Effects of sleep deprivation on behaviour, subsequent sleep, and dreaming. *J. ment. Sci.*, 1962, 108(Whole No. 455), 457-465.—Following 108 hours of sleep deprivation, the 1st recovery night showed, by EEG, an increase in percentage of time spent in deep sleep and the 2nd recovery night an increase in dream time. Sleep deprived persons can maintain vigilance briefly, but the insistent downward drift of cerebral vigilance is accompanied by changes in thinking and perception which are comparable to dreams.—*W. L. Wilkins.*

2398. Bujas, Z., Petz, B. Krković, A., & Sorokin, B. (Inst. za Medicinska Istraživanja, Zagreb) Faktorska analiza intelektualnog rada u stanju svježine i u stanju umora. [Factor analysis of intellectual work with and without fatigue.] *Arch. Hig. rada*, 1960, 11, 203-220.—A battery of 12 mental tests was given to the experimental group while in a state of nervous and physical fatigue, and to the rested control group. There were no significant differences between the 2 groups in average results and variability. However Tryon's cluster analysis showed that in the control group all the tests of similar or same factorial structure yielded a cluster, whereas in the experimental group the logic of clusters was completely disarranged; tests with similar factorial structure did not show clusters. Moreover, some tests with different factorial structure gave some profiles of a similar shape. These results support the hypothesis that under fatigue a certain disintegration of the functions that are used when the work is performed without fatigue is likely to occur and also some new integration on a new level.—*B. Petz.*

MOTIVATION & EMOTION

2399. Hoffman, H. S., & Bell, R. W. (Pennsylvania State U.) Comment on "Early Vibratory Experience and the Question of Innate Reinforcement Value of Vibration and Other Stimuli: A Limitation on the Discrepancy (Burnt Soup) Principle in Motivation." *Percept. mot. Skills*, 1962, 14(1), 133-134.—Several experimental flaws in a recent article are discussed, with particular emphasis upon the inadequacy of the dependent variable as an indicator of

learning. The importance of avoiding such errors is commented upon.—*W. H. Guertin.*

2400. Iakobson, P. M. *Psikhologičeskii chuvstvy.* [The psychology of feelings.] Moscow, USSR: Publishing House RSFSR Academy Pedagogical Sciences, 1958. 284 p.—The author treats of feelings in general, their formation, and their training. Included are chapters on methods for the study of feelings, feelings and personality, and the physiological bases of feelings. There is an appendix of 84 illustrative photographs.—*I. D. London.*

2401. Willett, R. A., & Eysenck, H. J. (U. London, England) An experimental study of human motivation. *Life Sci.*, 1962, No. 4, 119-127.—"An experimental test is reported of the hypothesis that reminiscence is a function of motivation. Using the pursuit rotor with pre-rest work periods of 12 and 15 min, groups of high and low drive subjects were found to give reminiscence scores in line with prediction; even with such long periods of work there was no evidence of approach to an asymptote in the high drive group. Performance scores did not differentiate between the groups; this was not in line with prediction and throws doubt on the adequacy of the original theoretical formulation. Suggestions were made regarding possible changes in the theory to incorporate these findings."—*C. T. Morgan.*

PSYCHOMOTOR TASKS

2402. Abbey, D. S. (U. Toronto) Age, proficiency, and reminiscence in a complex perceptual-motor task. *Percept. mot. Skills*, 1962, 14(1), 51-57.—3 groups of pre-adult Ss differing in mean ages received 5 training sessions on the Reversed Task of the Toronto Complex Coordinator. Sessions were separated by periods of 6 mo., and consisted of 2 5-min. practice periods separated by a 20-min. rest. A regression of posttest on pretest performance in terms of number of matches was calculated for each age group. The 3 slopes were found to be significant and heterogeneous. This finding is consistent with the general hypothesis that reminiscence decreases as skill improves and demonstrates that performance approaches an asymptote as a function of both age and practice.—*W. H. Guertin.*

2403. Ammons, C. H., & Ammons, R. B. (Montana State U.) Motor skills bibliography: XXIX. Psychological Abstracts, 1956, Volume 30, Second Half. *Percept. mot. Skills*, 1962, 14(3), 483-486.—90-item bibliography. One of a series which began prior to 1933.—*W. H. Guertin.*

2404. Behling, Orlando Charles. (U. Wisconsin) Television analysis of the behavioral aspects of tool-using. *Disser. Abstr.*, 1961, 22(3), 922.—*Abstract.*

2405. Botwinick, J., & Brinley, J. F. (National Inst. Mental Health) Aspects of RT set during brief intervals in relation to age and sex. *J. Gerontol.*, 1962, 17, 295-301.—4 hypotheses regarding age differences in reaction time (RT) set were tested. One hypothesis was found tenable indicating that "elderly men seemed to require more time than young men to overcome inaccurate expectations, and this was not accounted for by their over-all slowing." RT set patterns of women Ss were different in that an age-sex interaction of RT was found in some of the RT data.—*J. Botwinick.*

2406. Chaplin, Mary Rose, & Pollack, R. H. The after-effects of prolonged arm extension. *Acta psychol., Amsterdam*, 1962, 20(1), 24-28.—The notion that maintaining an arm at full horizontal stretch for 2 minutes is equivalent to the visual fixation of a rectangle at a given height is untenable. Inspection heights themselves are displaced upward or downward depending on the direction from which kinaesthetic stimulation is induced. The loci of test heights are not determining variables as far as the magnitude of their displacement is concerned.—G. Rubin-Rabson.

2407. Egorov, A. S., & Zakhar'iants Iu. Z. (Inst. Physiological Culture, Leningrad, USSR) *Elektrofiziologicheskoe issledovanie kinestezicheskogo analizatora. Soobshchenie III. Silovye komponenty dvizheniia.* [Electrophysiological study of the kinesthetic analyzer. Communication III. Force components of movement.] *Dokl. Akad. Pedag. Nauk RSFSR*, 1962, No. 2, 111-114.—9 Ss had their EMG and "tensograms" recorded while squeezing a dynamometer under different control conditions. The results confirm previous findings about the reflex nature of the sensory analysis which consists in breaking down sensations into their elements by means of "fractional reactions."—A. Cuk.

2408. Filonov, L. B. (Inst. Psychology, RSFSR Acad. Pedag. Sciences) *Zavisimost' vremeni vybora of chisla razichitel'nykh priznakov pri odnokratnom pred'iavlenii ob'ektov.* [Selection time as function of the number of discriminatory signs in a single presentation of objects.] *Dokl. Akad. Pedag. Nauk RSFSR*, 1962, No. 2, 95-98.—When 3 Ss were asked to discriminate complex visual stimuli by means of a reaction key the RT increased with the number of signs to be discriminated. Form, size, color, and location were used as discriminatory signs.—A. Cuk.

2409. Goldiamond, Israel. (Arizona State U.) *Machine definition of ongoing silent and oral reading rate.* *J. exp. Anal. Behav.*, 1962, 5(3), 363-367.—A definition of reading rate was achieved by having S press a switch to expose successive lines of reading material. This procedure was sensitive to such variables as signal-noise ratio, item difficulty, transient and long-term effects, reinforcement schedules, and age.—J. Arbit.

2410. Hammes, J. A., & Wiggins, S. L. (U. Georgia) *Perceptual-motor steadiness, manifest anxiety, and color illumination.* *Percept. mot. Skills*, 1962, 14(1), 59-61.—This study attempted to evaluate the inhibiting and facilitating effects of red and blue color illumination on a perceptual-motor task performed by Ss differing in degrees of manifest anxiety. Results indicate that low-anxious individuals are generally superior to high-anxious individuals. Color illumination seems to have had an insignificant effect in the present study. Male Ss were superior in performance to female Ss, and the interaction among the variables of anxiety, color, and sex approached statistical significance.—W. H. Guertin.

2411. Kern, Richard Popham. (State U. Iowa) *An empirical investigation of certain hypotheses concerning error performance on cancellation-type tasks.* *Dissert. Abstr.*, 1961, 22(4), 1242.—Abstract.

2412. Krinchik, E. P. (Moscow State U., USSR) *Izuchenie protsessa pererabotki informatsii chelovekom v situatsii vybora. Soobshchenie II. Zavisimost' vremeni reaktsii vybora of velichiny spetsificheskoi informatsii na uchastke ot 0 do 4 dv. ed.*

[Information processing in a situation of choice. Communication II. Choice RT as function of the amount of specific information in an area ranging from 0 to 4 binary units.] *Dokl. Akad. Pedag. Nauk RSFSR*, 1962, No. 2, 65-70.—Ss (not described) were reacting by means of a key to visual stimuli occurring with a probability of $p \leq \frac{1}{2}$, and $p \geq \frac{1}{2}$. It was found: (a) RT is a function of the specific amount of information, which can be expressed by the formula: $RT = a + b \log I$. (b) The important factors are the complexity of choice and the mutual relationship between the rarely and frequently occurring signals.—A. Cuk.

2413. McCormack, P. D., Binding, F. R. S., Chylinski, J. (U. Manitoba) *Effects on reaction-time of knowledge of results of performance.* *Percept. mot. Skills*, 1962, 14(3), 367-372.—Ss depressed a switch as fast as possible in response to the presentation of a light which appeared on the average once per minute with the intervals between lights being 30, 45, 60, 75, and 90 sec. Under the knowledge treatment a red or a green light was illuminated immediately following each response. The former indicated a reaction-time which was slower than the previous one while the latter signalled a faster response. For the 2 no-knowledge treatments, reaction-time increased with time on task and decreased with length of interstimulus interval. Under the knowledge condition, however, performance remained invariant with respect to both task duration and interval length.—W. H. Guertin.

2414. Molnár, Imre. (Hungarian Academy Science) *Sorozatos szokáscselekvés átállításánál adódó konfliktushelyzet kísérleti vizsgálata.* [An experimental study of conflict situations arising from changes in a sequence of movements.] *Pszichol. Tanulmányok*, 1, 1958, 105-120.—A series of experiments with children showed that "when the order in an automatized sequence of movements is changed, the more mistakes occur the farther the position of the affected member is within the stereotyped succession." A rat experiment using an approach-approach conflict to disrupt an automatized sequence resulted in the same phenomenon. It seems that the "sensory point of the first reaction is excited only by its own adequate stimulus, with the later member the case is different: the irritating stimulus coming from the previous members and the summation of kinaesthetic feedbacks of the reactions results in a firmer automatization even if the number of repetitions has been identical." (Russian & English summaries)—E. Friedman.

2415. Pierson, W. R., & Rasch, P. J. (California Coll. Medicine, Los Angeles) *Strength and speed.* *Percept. mot. Skills*, 1962, 14(1), 144.—26 medical students underwent a 4-week weight training program. While each exercise demonstrated significant increase in the strength of the Ss, it was unrelated to change in speed of reaction or arm extension.—W. H. Guertin.

2416. Sheldon, Richard Wallace. (State U. Iowa) *Tendency to analyze as a factor in the acquisition and reacquisition of skill on successive serial motor tasks.* *Dissert. Abstr.*, 1961, 22(5), 1727.—Abstract.

2417. Smith, Hope M., & Clifton, Marguerite A. (U. California, Los Angeles) Sex differences in expressed self-concepts concerning the performance of selected motor skills. *Percept. mot. Skills*, 1962, 14(1), 71-73.—23 male and 37 female college volunteers rated themselves on their own performance of 5 motor skills. Ratings were indicated by Ss' selections of descriptive words and phrases from a checklist. These selections were described by Ss as favorable and/or unfavorable descriptions of their performance. The hypothesis that the male Ss would rate themselves more favorably than would the females was supported. Greatest disparities between the groups were observed in the rating of performance of those skills which required more energy output and strength.—W. H. Guertin.

2418. Smith, Leon E., & Harrison, John S. (U. California, Riverside) Comparison of the effects of visual, motor, mental, and guided practice upon speed and accuracy of performing a simple eye-hand coordination task. *Res. Quart. Amer. Ass. Hlth. Phys. Educ. Recr.*, 1962, 33(2), 299-307.—6 different groups of 10 male university students were each given a 1-minute speed test-retest on a 3-hole stylus punchboard. To compare the effects of visual, motor, mental, and guided practice upon the speed and accuracy of the performance of a simple eye-hand coordination task, 5 groups received different types of practice between the tests. One group acted as a control and read between tests. The control, motor practice, and reversed-visual practice groups significantly improved performance in terms of correct hits and the total number of trials; they did not, however, reduce their number of errors. The visual and mental practice groups reduced their total number of errors and also increased their performance significantly in terms of correct hits and total number of trials. It was concluded that visual practice and mental practice improved accuracy on a punchboard learning task, whereas motor practice and guided practice did not.—*Journal abstract*.

2419. Smoot, Kenneth E., & Lawson, Reed. (U. Missouri) Performance after failure as a function of interpolated activity. *J. genet. Psychol.*, 1962, 100(2), 205-213.—60 college students were forced to fail on 10 complex card-sorting trials. They were then given 1 of 6 interpolated conditions: rest-success, no rest-success, rest-neutral, no rest-neutral, rest-failure, and no rest-failure. Following the interpolated period they were each given 5 "neutral" card-sorting trials. The work by affect interaction mean square based on "reminiscence scores" was significant ($p < .01$). No rest-success produced the greatest gain in efficiency on the 1st post-interpolation trial, followed by rest-neutral, no rest-failure, rest-failure, rest-success, and no rest-neutral in that order. Rest most effectively altered the influence of induced failure when there was no affect involved during the rest period; success was best applied in the former failure task, while interpolated failure had a similar effect under both rest and no rest conditions.—*Author abstract*.

2420. Sokolov, E. N., & Mikhalevskaya, M. B. (Moscow State U.) Metod testiruyushchego stimula. [The method of the probe stimulus.] *Vop. Psikhol.*, 1962, No. 1, 28-36.—This article is concerned with the use of reaction time to determine the absolute threshold values for sensitivity to light. The index

of sensitivity used is inhibition of the alpha rhythm. The authors have empirically determined the general relation between reaction time and intensity of the light stimulus in threshold units. They have also placed confidence bounds around this function. Now a probe stimulus of a given intensity is presented to a S and reaction time recorded. This is converted to number of threshold units above the absolute threshold and from this the absolute threshold itself can be calculated. This solution is iteratively refined. The authors further apply Bayes theorem to determine the probability that a particular stimulus is above, in, or below threshold range given that it yielded a particular reaction time.—H. Pick.

2421. Sui Lan Tsan. (Inst. Psychology, RSFSR Pedagog. Acad. Sciences) K voprosu o metodike izucheniia éffektivnosti reaktsii v zavisimosti ot kolichestva informatsii. [Method of studying effectiveness of reactions as related to the amount of information.] *Dokl. Akad. Pedagog. Nauk RSFSR*, 1961, No. 5, 81-84.—12 students were trained to choose between positive and negative visual stimuli ranging from simple to very complex. RT and errors were recorded. Linear relationship was found between dependent and independent variables. The importance of subjective factors was pointed out. Many Ss made an attempt to organize stimuli into "mental structures."—A. Cuk.

2422. Witte, Fae. (U. California, Santa Barbara) Effect of participation in light, medium, and heavy exercise upon accuracy in motor performance of junior high school girls. *Res. Quart. Amer. Ass. Hlth. Phys. Educ. Recr.*, 1962, 33(2), 308-312.—The purpose of this study was to investigate the effects of varying amounts of exercise on accuracy in throwing a softball. The Ss, 56 junior high school girls, were classified as either skilled or unskilled performers, and accuracy measures were taken following 5, 10, and 20 bouts of activity. It was concluded that: (a) there is no difference in the effect of light exercise as compared with moderate and heavy exercise on the throwing accuracy of either the skilled or the unskilled subjects, (b) unskilled Ss show a higher degree of accuracy following exercise at each of the 3 levels of duration than they do following no exercise, and (c) skilled Ss show no change in accuracy following light and moderate exercise, but they show a decrease in accuracy following heavy exercise.—*Journal abstract*.

ATTENTION & SET

2423. Aftanas, M. S., & Koppenaal, R. J. (U. Manitoba) Effects of instructional problems and jar position variation on the water-jar Einstellung test. *Psychol. Rep.*, 1962, 10(2), 359-362.—The percentage of Einstellung (E)-solutions of the water-jar test among 176 highschool students was investigated as a function of instructional problems, positional order of jar sizes, and amount of training on problems allowing only E-solutions. A significantly larger percentage of E-solutions occurred among Ss given Luchin's instructional problems than those given instructions which demonstrated 2 kinds of solutions. More E-solutions were obtained from Ss given 6 training problems than those tested immediately after instruction.—B. J. House.

2424. Egorov, A. C. (Dept. Psychology, Inst. Physical Culture Lesgafta, Leningrad, USSR) Eks-

perimental'noe issledovanie preodoleniya trud-nostei pridinamicheskoi rabote. [Experimental investigations of overcoming of difficulties during dynamic work.] *Vop. Psikh.*, 1962, No. 1, 19-27.—An investigation was carried out on the effect of 2 forms of set in overcoming increased difficulty in a motor task. One type of set was induced by instructing Ss to react to an increase in difficulty of the task to the degree they felt able. In the other type Ss were admonished to exert all possible effort to overcome difficulty. The task involved pressing an ergograph with the palm of the hand. The increased difficulty consisted of requiring Ss to depress it with 1 finger. The ergogram, PGR, and breathing rate of Ss were recorded along with verbal reports. The 2 types of set were induced successively in the same Ss. Results indicated that the types of set differed in efficiency in completion of the task. Also the physiological indices differed as Ss performed the task under the 2 different sets. This difference was apparently partially dependent on the order of presentation of the tasks.—*H. Pick.*

2425. Gorbov, F. P. (Moscow, USSR) *K voprosu o mekhanizme retro-i anterogradnoi amnezii.* [On the question of the mechanism of retro- and ante-amnesia.] *Vop. Psikh.*, 1962, No. 1, 37-44.—An analysis of lapses of consciousness by persons involved in high speed activities such as flying indicate that a large portion of the lapse of consciousness is actually amnesia. The performance of a highly skilled task during the supposed lapse of consciousness attests to this. A model involving the stages of initial perception, temporary trace, delayed trace, and fused trace (or memory) is presented. One property of the model is that it predicts a temporal spread of loss of memory around the time of a lapse of consciousness. An experiment is described in which a retroactive inhibition paradigm yields results of retro-amnesia based on the model.—*H. Pick.*

2426. Heath, Douglas H. (Haverford Coll.) Reinforcement and drive level determinants of expectancy generalization. *J. gen. Psychol.*, 1962, 67, 69-82.—The effect of different drive levels on expectancy generalization was studied. Ss were individually given different drive inducing instructions and were then asked to estimate the percentile score he expected to achieve on a vocabulary test. Following the test, E either positively or negatively reinforced S's expectancy by reporting falsified scores. Each S then estimated his score on a randomly presented set of 5 varied generalization tasks. The results were: (a) negative reinforcement produced significantly heightened drive levels, greater expectancy changes, and flatter expectancy gradients than positive reinforcement; (b) instructionally induced drive level changes, compared to the reinforcement and task variable effects, had relatively little differential effect on the magnitude and slope of expectancy gradients; and (c) both task physical and reinforcement similarity mediated extensive expectancy generalization following negative reinforcement, but task physical, rather than task reinforcement, similarity mediated more generalization following positive reinforcement.—*Author abstract.*

2427. Loeb, M., & Hawkes, G. R. (USA Medical Research Lab., Fort Knox, Ky.) Detection of differences in duration of acoustic and electrical cutaneous stimuli in a vigilance task. *J. Psychol.*,

1962, 54(1), 101-111.—24 college students were instructed to attend to auditory, cutaneous, simultaneous auditory, and cutaneous, or mixed stimuli presented in separate sessions, and to respond as rapidly as possible by pressing a key when signals of double length occurred. Detection of auditory signals was superior to cutaneous signals and latency was less. Probability of detection for the auditory signals was constant throughout the session, but decreased as a function of time on task for cutaneous signals. Detection of simultaneous signals was similar to that of auditory signals alone. For the mixed stimuli the probability of detection of the auditory and cutaneous signals was approximately the same as their probabilities when presented alone. A possible interpretation for the results is suggested.—*Author abstract.*

LEARNING

2428. Battig, W. F. (U. Virginia) Interrelationships between measures of association and structural characteristics of nonsense shapes. *Percept. mot. Skills*, 1962, 14(1), 3-6.—Measures of association value of nonsense shapes, varying systematically in complexity (number of sides) and curvature, were found to bear little or no relationship to either these or other physical properties of the shapes (area, perimeter, and angular variability). Moreover, a significant decrease in inter-S heterogeneity in content of association responses was obtained for shapes of increasing association value. These results differ markedly from those of previous studies and indicate the existence of complex nonlinear interactions between various physical and perceptual measures, which many render the typically-employed linear correlational techniques inadequate for the investigation of this problem.—*W. H. Guerin.*

2429. Clark, J. W., & Stevenson, W. B. (Dalhousie U., Canada) The influence of fatigue on the rate of acquisition. *Bull. Maritime Psychol. Ass.*, 1962, 11(1), 16-19.—40 male students were given a serial learning task either 15 sec., 2 min., 5 min., or 10 min. following a period of intense physical exertion. The 15-sec. group and the 2-min. group exhibited a higher rate of acquisition than the 5-min. group, with the 10-min group at an intermediate position. Results are discussed in terms of a fatigue-drive-reduction hypothesis and an arousal hypothesis.—*C. W. Page.*

2430. Cratty, Bryant J. (U. California, Los Angeles) Comparison of learning a fine motor task with learning a similar gross motor task using kinesthetic cues. *Res. Quart. Amer. Ass. Hlth. Phys. Educ. Recr.*, 1962, 33(2), 212-221.—60 male university students, divided into 2 groups of 30 were given 12 blind-folded trials to learn each of 2 mazes. The large locomotor maze had an irregular pattern 111.25 ft. long and contained no blind alleys; the smaller stylus maze had a similar pattern 44.5 in. in length. Performance was based upon traversal time, and no errors were recorded. It was found that, while the group learning rates were similar, there was no significant correlation between the traversal times of the 2 tasks. In addition, some transfer between tasks took place, evidenced in learning curves.—*Journal abstract.*

2431. Ihalainen, V. H. (Pitkelahti as. Finland) Über den Einfluss von Aktivität und Motivation auf das Lernen. [The influence of activity and

motivation on learning.] *Psychol. Beitr.*, 1962, 7(1), 3-53.—A series of experiments conducted with 114 students showed that (a) the measure of activity and time needed in dictation-learning experiments corresponded to the learning results of tests that were conducted later and (b) the group in which the work was strongly tied to the life of the Ss reached considerably better results than the group that worked just for the sake of the experiment, or to do the E a favor. (English & French summaries)—H. J. Priester.

2432. Makres, Thomas Peter. (Vanderbilt U.) **A test of Spence-Taylor hypotheses on learning and drive.** *Dissert. Abstr.*, 1961, 22(6), 2081.—*Abstract.*

2433. Purdy, Bonnie J., & Lockhart, Aileene. (Long Beach State Coll.) **Retention and relearning of gross motor skills after long periods of no practice.** *Res. Quart. Amer. Ass. Hlth. Phys. Educ. Recr.*, 1962, 33(2), 265-272.—Retention and relearning of 5 novel gross motor skills after a long period of no practice were studied. College women were classified into high, average, and low skill groups in a previous experiment, and this classification of 36 of the original Ss was retained in the present retesting study. A high degree of skill was retained after approximately 1 year of no practice. Relearning to previously attained skill levels was rapid. There were significant differences among classified high, average and low skill groups in learning, retention, and relearning.—*Journal abstract.*

2434. Rachman, S. (U. London) **Disinhibition and the reminiscence effect in a motor learning task.** *Brit. J. Psychol.*, 1962, 53(2), 149-157.—This study was designed to investigate the operation of disinhibition in humans. 2 groups of Ss were made to perform a motor learning task (pursuit rotor). The Ss in the experimental group were presented with a brief disinhibiting, alien stimulus during their 5 min. practice period. It was predicted that the introduction of this alien stimulus would produce an augmentation of performance level and a reduction in the reminiscence effect. Both predictions received partial confirmation and the results are interpreted in terms of Pavlov's description of inhibition and Eysenck's account of the development and dissipation of reactive inhibition. In an attempt to clarify some aspects of the results, a 2nd experiment was carried out. 4 groups of 10 Ss each were given the same pursuit rotor task to complete. Group A acted as a control, Group B was presented with an alien stimulus early in the 5 min. practice period, Group C late in the practice period, and Group D very late in the practice period. In addition to clarifying some of the earlier results this experiment showed that the effect of an alien stimulus on performance is most marked when it is introduced late in the practice period.—*Journal abstract.*

2435. Ryan, Dean E. (U. California, Davis) **Relationship between motor performance and arousal.** *Res. Quart. Amer. Ass. Hlth. Phys. Educ. Recr.*, 1962, 33(2), 279-287.—40 males Ss were tested on a motor learning task and immediately after each of the learning trials. Ss were then dichotomized on the basis of initial conductance, final conductance, total change in conductance, conductance after trial one, and changes in conductance from rest to trial one. There was no difference in per-

formance between groups when Ss were divided on the basis of initial conductance, but for all other measures performance was significantly better for the group with higher conductance. These results lend support to the concept of an arousal continuum as proposed by Duffy and Malmö.—*Journal abstract.*

2436. Shekhter, M. S. (Inst. Defectology, RSFSR Acad. Pedagog. Sciences) **Izuchenie mekhanizmov simul'tannogo uznaniia: Soobshchenie II. K voprosu o kharaktere razvitiia opoznavatel'nogo protsesssa.** [Study of the mechanism of simultaneous learning: Communication II. Nature of the development of the recognition process.] *Dokl. Akad. Pedagog. Nauk RSFSR*, 1961, No. 5, 97-102.—Discussion on the basis of previously obtained experimental data of the signs used in simultaneous recognition of objects. 2 possibilities are available: completely new signs are used or the old signs employed in the successive recognition of objects are rearranged in a new way. The analysis of data seems to point to a 3d solution combining the other 2.—A. Cuk.

2437. Svyadosch, A. M. (Dept. Psychiatry Medical Inst., Karaganda) **Vospriyatie i zapominanie rechi vo vremya estestvennogo sna.** [Perception and memory of speech during natural sleep.] *Vop. Psikhol.*, 1962, No. 1, 65-80.—Evidence on the ability of persons to perceive speech while sleeping indicates that it is a rare phenomenon. The present investigation attempted to train Ss to do this. Pretraining control tests indicated that Ss who were read to while sleeping or who were awoken at night and read to did not generally remember the text and many didn't even remember being awoken. Training consisted of hypnotic or self-suggestion to the effect that S should listen to text which would be read to him at night and remember it the next day. The experimental test was carried out in the same manner as the non-waking control test. 20 of 25 Ss developed the ability to perceive speech while sleeping. In one case this ability persisted 60 days. (30-item bibliogr.)—H. Pick.

2438. Werner, H., & Kaplan, B. (Clark U.) **Some experiments in support of an organismic theory of symbol-formation.** *Psychol. Beitr.*, 1962, 6(3-4), 484-491.—2 experiments are cited in support of the organismic theory of symbol-formation. The 1st study shows that printed words placed in a darkroom are shifted up and down depending on the up-down directional meaning of these words. The 2nd experiment shows that "meaning lapse" in words through repetition can be delayed if sensory-motor action consonant with the word meaning accompanies the repeated word. (French & German summaries)—H. J. Priester.

Conditioning

2439. Burstein, Kenneth Richard. (Duke U.) **The intensity of the unconditioned stimulus and eyelid conditioning.** *Dissert. Abstr.*, 1962, 22(12), 4417.—*Abstract.*

2440. Champion, R. A., & Jones, Joan E. (U. Sydney, Australia) **Drive level (D) and extinction in classical aversive conditioning.** *J. gen. Psychol.*, 1962, 67, 61-67.—A test was made of the possibility that the delay in extinction with a shift from a favorable to an unfavorable CS-UCS interval after acqui-

sition results from the continued operation of the acquired association or of the expectancy that UCS will follow CS. After both forward and backward conditioning of the GSR, isolated presentations of the noxious UCS (shock) were interspersed with CS (tone)-only trials in the experimental Ss and were completely omitted in the control Ss. The performance of the experimental group rose in extinction whereas that of the control group fell. This result was taken as evidence against the possibilities being tested and as in line with the hypothesis that extinction after classical aversive conditioning is at least partly due to the omission of the drive-producing UCS.—*Author abstract.*

2441. Craddick, Ray A., & Leipold, William D. (New Mexico State U.) **Verbal conditioning: Experimental extinction as a function of the position of a single reinforcer.** *Psychol. Rep.*, 1962, 10(2), 427-436.—200 undergraduates, after training in a verbal conditioning task with continuous reinforcement, received either an immediate extra reinforcement or a single cycle of a 1:5 or a 1:10 fixed ratio partial reinforcement schedule. Partial reinforcement groups showed significantly higher performance rates during a period of nonreinforcement. The same effect was found whether or not Ss were informed of the nature of the desired operant before acquisition; however, the informed groups did not show a decline during the 6-min. nonreinforcement period while the uninformed groups did. Implications of the results for clinical practice were discussed.—*B. J. House.*

2442. Das, J. P., & Mitra, A. K. (Ravenshaw Coll., Cuttack, India) **Relative effectiveness of electric shock and praise and reproof in verbal conditioning.** *J. gen. Psychol.*, 1962, 67, 141-146.—This study intended to find out the relationship between verbal conditioning, types of reinforcement, and personality traits. 50 college students were divided into 2 groups and given the same verbal conditioning test (choosing I or We from I, We, He, She, They to frame a sentence with a verb in past tense) under 2 different reinforcers, (a) verbal praise ("good") and reproof ("wrong") for correct and incorrect responses respectively, and (b) electric shock for incorrect responses. Verbal and shock reinforcers did not produce any difference in the speed of acquisition or extinction, but shock led to significantly greater SD and more stereotyped behavior. Extraversion, neuroticism, rigidity, or intelligence were not significantly correlated with verbal conditioning measures.—*Author abstract.*

2443. de Montmollin, Germaine, & Le Ny, Jean-Francois (Sorbonne, Paris, France) **Conditionnement d'attitude et conditionnement verbal.** [Conditioning of attitude and verbal conditioning.] *Psychol. Franc.*, 1962, 7(1), 67-74.—This study was designed to replicate some American experiments of Staats and Staats (see 33: 741, 7843, 7844; 34: 914) on semantic generalization. There were 85 female Ss divided between 2 groups. The basic attempt to establish semantic conditioning failed so that generalization could not be demonstrated. It was suggested that differences in the kinds of words, in the languages, and in the experimental populations may have contributed to the failure.—*C. J. Adkins.*

2444. Horn, Paul Walter. (Vanderbilt U.) **Eyelid conditioning as a joint function of condi-**

tioned and unconditioned stimulus intensity. *Dissert. Abstr.*, 1961, 22(6), 2079.—*Abstract.*

2445. Levin, Gilbert. (Boston U.) **The operant conditioning of a social response.** *Dissert. Abstr.*, 1961, 22(4), 1265.—*Abstract.*

2446. Levin, Gilbert, & Shapiro, David. (Harvard Medical School) **The operant conditioning of conversation.** *J. exp. Anal. Behav.*, 1962, 5(3), 309-316.—4 experiments were conducted to test whether differentially reinforcing a group of speakers can bring the order of speakers under experimental control. The results are all consistent with the hypothesis. The paper also devises and evaluates different procedures for studying conversational sequences and examines associated statistical problems.—*J. Arbit.*

2447. Levine, G., & Lipinski, C. E. (Creedmoor Inst. Psychobiologic Studies) **Generalization of stimulus-response pairing.** *Percept. mot. Skills*, 1962, 14(1), 47-50.—Ss were conditioned to 2 of 4 individually presented stimuli. Ss were presented with 4 possible responses, shown horizontally, allowing S to see them as constituting a spatial sequence. 2 alternately ranked responses were conditioned to mutually ranked stimulus values. A test for stimulus-response generalization yielded the hypothesized increase in the use of nonconditioned responses to nonconditioned stimuli and a decrease in conditioned responses to nonconditioned stimuli.—*W. H. Guertin.*

2448. Levine, G., & Weitzman, B. (Creedmoor Inst. Psychologic Studies) **Supplementary report: Generalization of stimulus-response pairing.** *Percept. mot. Skills*, 1962, 14(3), 515-516.—20 Ss were conditioned to respond with 2 of 4 possible responses to 2 of 4 individually presented stimuli, each response to one stimulus. All 4 possible responses were always present, but 2 were never reinforced, so that extinction could occur on the use of the 2 nonconditioned responses. The experiment was run to discover whether the addition of extinction to the paradigm would reverse the previous findings of generalization of stimulus-response pairing. The results supported the previous findings, rather than reversing them.—*W. H. Guertin.*

2449. McDonell, Carol R., & Inglis, James. (Queens U., Kingston, Ontario) **Verbal conditioning and personality.** *Psychol. Rep.*, 1962, 10(2), 374.—Verbal conditioning and extinction scores of 65 undergraduates showed no relationship to introversion-extroversion scores from the Maudsley Personality Inventory, thus failing to support Eysenck's theory.—*B. J. House.*

2450. Maltzman, Irving; Seymore, Simon, & Licht, Leonard. (U. California, Los Angeles) **Verbal conditioning of common and uncommon word associations.** *Psychol. Rep.*, 1962, 10(2), 363-369.—A list of 100 stimulus words from the Kent-Rosanoff list was presented to 93 undergraduates, instructed to give associations quickly. One group, reinforced by the word "Good" after each common association, produced significantly more common responses than did a control group given no reinforcements, but the effect was restricted to Ss able to verbalize the reinforcement contingency. A 3rd group, reinforced for uncommon associations, did not differ from the controls. The 3 groups did not differ in performance on Guilford's Unusual Uses Test presented after the word-list.—*B. J. House.*

2451. Marder, Martin. (U. Pennsylvania) The effects of experimenter attractiveness and negative reinforcement on verbal conditioning. *Dissert. Abstr.*, 1961, 22(4), 1243.—*Abstract*.

2452. Morone, Von G., & Citroni, M., (U. Pavia, Italy) Über die Möglichkeit den photomotorischen Reflex der Pupille hervorzurufen. [On the possibility of eliciting the photomotor reflex of the pupil.] *Ophthalmologica*, 1962, 143(6), 423-430.—"The authors endeavor to condition the photomotor reflex of the pupil by using an auditory stimulus. The researches, pupillographically conducted, do not allow any conditioned iridic reflex activity to be brought into evidence. With the method used, instead, dynamic pupillary manifestations were induced which could be the expression of an atypical, arrhythmical hippus."—C. T. Morgan.

2453. Shearn, Donald W. (Colorado Coll.) Operant conditioning of heart rate. *Science*, 1962, 137(Whole No. 3529), 530-531.—Delay of shock was made contingent upon acceleration of heart rate in human Ss. The number of accelerations rose across sessions for these Ss and fell for their yoked-controls who received equal amount of noncontingent shock. A shorter delay produced more accelerations but faster adaptation. Interpretation of changes in heart rate is confounded by related respiratory changes.—*Journal abstract*.

2454. Shearn, Donald Walter, Jr. (Indiana U.) Operant conditioning of heart rate. *Dissert. Abstr.*, 1962, 22(5), 1726-1727.—*Abstract*.

2455. Simmons, W. L., & Christy, E. G. (U. Nevada) Verbal reinforcement of a TAT theme. *J. proj. Tech.*, 1962, 26(3), 337-341.—Attempts to reinforce a parent-child interaction theme appeared to be more successful with female Ss, although there were few significant differences between experimental and controls groups.—A. Greenwald.

2456. Staats, A. W., Staats, C. K., & Crawford, H. L. (Arizona State U.) First-order conditioning of meaning and the parallel conditioning of a GSR. *J. gen. Psychol.*, 1962, 67, 159-167.—A GSR was conditioned to the word "large, as it was presented in a list of words to the Ss, using shock and noise as UCS. Subsequent to this conditioning procedure, the evaluative meaning of "large" was measured using an appropriate semantic differential scale. Negative evaluative meaning had been conditioned to "large." Thus, the same procedure which conditioned a GSR to a word also conditioned negative evaluative meaning to the word. It was found, in addition, that the intensity of the conditioned GSR was significantly correlated with the intensity of the conditioned meaning response. The results support the theory that word meaning consists of responses which are classically conditioned to a word through systematically pairing it with certain aspects of the environment.—*Author abstract*.

2457. Taber, Julian Ingersoll (U. Pittsburgh) Human timing behavior. *Dissert. Abstr.*, 1961, 22(3), 928.—*Abstract*.

2458. Timmons, Edwin O. (Station B, VA Hosp., Gulfport, Miss.) Weakening verbal behavior: A comparison of four methods. *J. gen. Psychol.*, 1962, 67, 155-158.—A comparison was made of the relative efficiency of 4 methods of weakening a conditioned verbal habit—extinction, "punishment,"

counter-conditioning, and "punishment" plus counter-conditioning. Ss were college undergraduates. It was hypothesized that methods involving greater amounts of cue-change from conditioning to the weakening phase would have correspondingly greater effects. The results supported this prediction. Counter-conditioning (conditioning a similar but incompatible response) was the most powerful single weakening agent. Relatively little was added by combining punishment with counter-conditioning. Punishment alone was approximately one-half as effective as counter-conditioning, and straight extinction less effective than counter-conditioning by a factor of 3 to 1.—*Author abstract*.

Discrimination

2459. Geer, James H., & Buss, Arnold H. (U. Pittsburgh) Supplementary report: Generalization of a nonverbal response to aggressive verbal stimuli. *J. exp. Psychol.*, 1962, 63(4), 413-414.—A previous study investigated the effects of direction of generalization and intensity of vocal response on stimulus generalization with aggressive verbal stimuli. The present study attempted to test the generality of these findings with a nonverbal response and with an amplitude measure of response strength. The tendency to match the intensity of the response with the intensity of the hostile stimuli, as well as the direction of generalization were compared with findings from the earlier study.—*J. Arbit.*

2460. Gundy, Richard F. (Indiana U.) Detection of an unspecified signal: A study in auditory discrimination learning. *Dissert. Abstr.*, 1961, 22(6), 2077.—*Abstract*.

2461. Smock, C. D., & Small, V. H. (Purdue U.) Efficiency of utilization of visual information as a function of induced muscular tension. *Percept. mot. Skills*, 1962, 14(1), 39-44.—36 Ss were each presented with visual forms for .02 sec. under 6 levels of induced muscle tension (IMT). Analysis of data indicated a curvilinear relationship between IMT and recognition. An interaction between trials and tension suggested that perceptual efficiency varied as a function of the stage of perceptual learning. An increase in consistency of the difficulty level of the forms across trials was interpreted as supportive of this interpretation. It was concluded that peripheral-motor processes have an important role in regulating perceptual inputs.—W. H. Guertin.

2462. Thomas, David R., & Mitchell, Kevin. (Kent State U.) Instructions and stimulus categorizing in a measure of stimulus generalization. *J. exp. Anal. Behav.*, 1962, 5(3), 375-381.—3 groups of Ss were exposed to a light of a given color and then viewed a random sequence of wavelengths with instructions to respond only to the original color. However, the instructions were worded differently to vary the strength of the set-to-discriminate. All 3 groups produced similar gradients which indicated that the task was such that a strong discriminatory set was produced regardless of the wording of the instructions. A temporal analysis of the gradients indicated that the peak of responding shifted to the primary color. A 2nd experiment was run to test this hypothesis and was supported by the data. It was suggested that, although a physiological process could not be ruled out, the verbal labeling of the standard stimulus value may have been responsible

for the regression of the gradient toward the primary color.—*J. Arbit.*

2463. Tyler, Vernon O., Jr. (U. Nebraska) **Sensory integration with and without reinforcement.** *J. exp. Psychol.*, 1962, 63(4), 381-386.—Ss pointed to the letters of nonsense words and described them in a way that made certain that the names of the letters were not uttered vocally or subvocally—ruling out the S-R and R-R interpretations of the data. Later, tachistoscopic duration thresholds were obtained for the nonsense words and equated control words. Thresholds were lower for the previously exposed words; this was interpreted as evidence of S-S learning. Ss who were praised during the training did no better on the tachistoscope thresholds than an unpraised group; this was interpreted as indicating that S-S learning is independent of reinforcement.—*J. Arbit.*

Verbal Learning

2464. Beck, Robert C., Phillips, William R., & Bloodsworth, Warren D. (Wake Forest Coll.) **Associative reaction times as a function of association value of nonsense syllable stimuli.** *Psychol. Rep.*, 1962, 10(2), 517-518.—Reaction times of associations of 18 students to 320 nonsense syllables correlated significantly ($r = -.19$) with Archer's association values.—*B. J. House.*

2465. Besch, Norma F., Thompson, Venan E., & Wetzel, Allan B. (Ohio State U.) **Studies in associative interference.** *J. exp. Psychol.*, 1962, 63(4), 342-352.—Using female college Ss, 3 experiments were performed in order to evaluate a generalization interpretation of interference in transfer tasks employing 1 and 2 syllable nouns and adjectives. The findings could not be accounted for solely on the basis of the generalization interpretation. An alternative explanation in terms of extinction or unlearning was proposed.—*J. Arbit.*

2466. Bugelski, B. R. (U. Buffalo) **Presentation time, total time, and mediation in paired-associate learning.** *J. exp. Psychol.*, 1962, 63(4), 409-412.—College Ss learned pairs of nonsense syllables where the presentation time for the response syllable varied from group to group (as did, therefore, the total exposure time). Fastest learning occurred with the longest presentation times. Presentation time multiplied by trials produced no significant differences, and it was concluded that this is a constant value. Questioning Ss revealed that mediational devices had been used in learning the nonsense syllable pairs; this had occurred particularly when the pairs were translated onto 1 or 2 meaningful words, or where the pairs produced some particular imagery.—*J. Arbit.*

2467. Cieutat, V. J. (Louisiana State U.) **Induced meaningfulness in serial verbal learning.** *Percept. mot. Skills*, 1962, 14(3), 373-374.—An attempt was made to increase meaningfulness (m) of initially low m terms by experimentally raising the number of associations elicited by them. It is concluded that this facilitates the rate at which these terms are subsequently learned in a serial list. Results are inconclusive, however, as part or all of the observed effect may have been due to familiarity incidental to the association-adding procedure.—*W. H. Guertin.*

2468. Cieutat, V. J. (Louisiana State U.) **Stability of meaningfulness (m) values for verbal material.** *Percept. mot. Skills*, 1962, 14(3), 398.—Noble's m was shown to demonstrate high stability and generality as an index of the relative associative power of Verbal items. Surprisingly similar rank positions were found for m 's of the words evaluated 10 years ago by Noble, although the present study employed friends and relatives of college students, while Noble used airmen.—*W. H. Guertin.*

2469. Cieutat, V. J. (Louisiana State U.) **Replication report: Implicit verbal chaining in paired-associate learning.** *Percept. mot. Skills*, 1962, 14(1), 45-46.—An experiment by Russell and Storms (1955) was replicated and extended, using a group method of paired-associate learning. Their conclusion, that implicit verbal chaining facilitates paired-associate learning, was confirmed. It was also suggested that magnitude of this facilitation is inversely proportional to the number of implied mediating links.—*W. H. Guertin.*

2470. Epstein, William (U. Kansas) **Backward association as a function of meaningfulness.** *J. gen. Psychol.*, 1962, 67, 11-20.—Stimulus-recall following S-R learning of pairs of concrete nouns, abstract nouns, and function words was investigated. R-S learning was highest for the concrete nouns (high Noble's m) and lowest for the function words (low Noble's m). R-S learning was intermediate for the abstract nouns (intermediate m). 4 possible explanations of the relationship between m and R-S learning were described.—*Author abstract.*

2471. Erlebacher, Adrienne, & Harris, Chester W. (U. Wisconsin) **Parameters of word fluency tasks.** *J. educ. Psychol.*, 1962, 53(4), 197-200.—Word fluency tests, consisting of a given initial pair of letters (bigram) which are to be responded to by writing all the English words the S can in a 5-minute period, were administered to 90 adult Ss. Bigrams were chosen to form an orthogonal design on the basis of 2 characters: (a) either a vowel followed by a consonant, or a consonant followed by a vowel; and (b) pool size, or the number of commonly used English words which begin with that bigram. Both effects were significant at the .01 level. The consistency of these results with other studies of verbal learning is commented on.—*Journal abstract.*

2472. Ernst, Ronald Lester. (U. Wisconsin) **The effect of intralist similarity on the identification-discrimination learning of nonsense syllables.** *Dissert. Abstr.*, 1961, 22(6), 2075.—*Abstract.*

2473. Fischer, Gloria J., & Cook, Mary B. (U. Oklahoma) **Influence of distribution of practice and varying speeds of stimulus presentation on incidental learning.** *Psychol. Rep.*, 1962, 10(2), 539-545.—1 group of 112 undergraduates was instructed to learn a list of 7 nonsense syllables while another group of 112 was instructed merely to observe. Each syllable was enclosed in a different form. In each group, Ss were assigned (in a 2×2 design) to a syllable presentation interval of 2 or 4 sec. and an intertrial interval of 6 or 126 sec. For the instructed group, longer presentation time and intertrial interval significantly increased rate of syllable learning. Effectiveness of the longer presentation time was greater for a 6 sec. intertrial interval than the 126 sec. interval. Incidental learning measured by a recognition test of the forms was signifi-

cantly less for the instructed group than for the uninstructed group and was significantly greater for 4 sec. presentation time than 2 sec. Intertrial interval had no effect on incidental learning.—*B. J. House.*

2474. Fletcher, Samuel J. (Florida State U.) The effect of single verbal stimuli and combinations of verbal stimuli on omission of a class of words or sentences. *Dissert. Abstr.*, 1961, 22(4), 1251.—*Abstract.*

2475. Froehlich, Dean Kenneth (U. Illinois) The effects of anxiety and types of stress upon verbal serial learning. *Dissert. Abstr.*, 1961, 22(5), 1723-1724.—*Abstract.*

2476. Hakes, David Trumbull. (U. Minnesota) The role of stimulus and response familiarization in paired-associate learning. *Dissert. Abstr.*, 1961, 22(6), 2077-2078.—*Abstract.*

2477. Jensen, Arthur R. (U. California) Is the serial-position curve invariant? *Brit. J. Psychol.*, 1962, 53(2), 159-166.—"An index of Relative Difficulty was proposed as a method of representing the serial-position effect. It has the advantages of not being confounded with the other components and of being the same shape whether it is based on errors or on correct responses. It results on what might be called a "pure" serial-position curve and permits the direct comparison of serial-position curves obtained under various conditions. The Index is recommended as the only satisfactory method for comparing different serial-position curves."—*C. T. Morgan.*

2478. Johnson, Ronald C., & Watson, Nancy. (U. Hawaii) Individual meaning production as related to amount of verbal learning. *J. gen. Psychol.*, 1962, 67, 117-120.—Contemporary research suggests that Ss who produce large numbers of meanings (in Noble's sense) or associations to words, should learn verbal materials more rapidly than do Ss who produce fewer meanings or associations. Several studies, using nonsense materials as stimuli, have yielded essentially negative results. The Es in this study used a sample of 41 Ss who took part in a meaning production and a learning task. Stimulus materials in both segments of the experiment consisted of meaningful words, since these stimuli should maximize individual differences in the production of associations as well as in associative probability in the learning task. A significant positive correlation was found between the number of associations produced by Ss and the amount Ss learned. Possible explanations of this finding were discussed.—*Author abstract.*

2479. Kausler, Donald H., & Trapp, E. Philip. (St. Louis U.) Effects of incentive-set and task variables on relevant and irrelevant learning in serial verbal learning. *Psychol. Rep.*, 1962, 10(2), 451-457.—"Eighty college students were assigned to eight groups of 10 Ss each, representing a $2 \times 2 \times 2$ factorial design. The factors were motivational level (no incentive-set versus incentive-set), position of irrelevant cues with respect to relevant cues (central versus peripheral), and rate of presentation (2 sec. versus 4 sec.). The relevant task consisted of a serial list of eight nonsense syllables and the irrelevant task of two-digit numbers exposed simultaneously on the memory drum. Twelve trials were given each S with instructions that directed attention to the relevant task only." The only significant main

effect was faster relevant learning with a 4-sec. rate than a 2-sec. rate. Significant interactions indicated a complex relationship between incentive-set, position of irrelevant cues, and relevant and irrelevant learning. "The results were interpreted as due to variations in relevant cue distinctiveness that accompany simultaneous irrelevant learning."—*B. J. House.*

2480. Lerea, L., & Kohut, S. (Northern Illinois U.) A comparative study of monolinguals and bilinguals in a verbal task performance. *J. clin. Psychol.*, 1961, 17(1), 49-52.—30 monolingual and 30 bilingual Ss were administered a 70-minute battery consisting of the following items: bilingualism questionnaire, Columbia Mental Maturity Scale, Rogers' Test of Personality Adjustment, and Micro Utterance-Association Test (MU-A). The findings suggested that bilinguals learned and relearned the MU-A faster than monolinguals, and the speed of learning of the monolinguals showed a high correlation with their intelligence. There was no significant relationship in either the bilingual or monolingual group between social adjustment and the MU-A performance.—*V. J. Bielouskas.*

2481. Noble, Clyde E. (Montana State U.) Reply to comments on the measurement of CVC trigrams. *Psychol. Rep.*, 1962, 10(2), 547-550.—"Archer's criticisms [see *Psychol. Rep.*, 1961, 9, 679-680] of my CVC measurement technique are judged invalid, and my belief that association-value scales are inferior to scales of meaningfulness still seems to be correct on further reflection. Although Saltz and Ager's (see 37: 404) suggestion of a universal learning-score transformation does not appear feasible, they were justified in doubting the linearity of m and m' . The true relationship, based on more extensive new data reported here, is probably exponential. This is a finding, however, which provides no evidence against the statistical properties attributed to the two scales."—*B. J. House.*

2482. Peterson, Lloyd R., Saltzman, Dorothy; Hillner, Kenneth, & Land, Vera. (Indiana U.) Recency and frequency in paired-associate learning. *J. exp. Psychol.*, 1962, 63(4), 396-403.—Using college students, the formation of associations between pairs of verbal items was investigated in 4 short-term retention experiments. The same phenomena were essentially found in short-term retention that had previously been found in long-term learning and retention studies. Findings were discussed in relation to the all-or-none vs. incremental assumption regarding associative learning, and they were interpreted as favoring the latter assumption.—*J. Arbib.*

2483. Sassenrath, Julius M. (Indiana U.) Transfer of learning without awareness. *Psychol. Rep.*, 1962, 10(2), 411-420.—2 groups of 36 undergraduates each, assigned to Control and learning without awareness (LWA) training conditions, were further subdivided into Informed and Not Informed Groups for transfer tests in a 2×2 design. In training and transfer tasks all Ss were required to give number responses to stimulus words, with correct response determined by number of letters in the word. LWA Ss were trained to criterion, while Control Ss performed the training task without knowledge of results. LWA Ss were excluded for partial verbalization of the reinforcement principle. All Ss were reinforced for correct responses during the transfer task, but Informed Ss were told the

general nature of the principle while Not Informed Ss were not. Learning of the transfer task was significantly faster for the LWA than the Control Group, and for the Informed vs. Not Informed Groups. It was concluded that LWA can influence acquisition of a transfer task.—B. J. House.

2484. Terwilliger, Robert F. (Rutgers U.) **Note on familiarity and verbal learning.** *Psychol. Rep.*, 1962, 10(2), 409-410.—Familiarity ratings of trigrams by 50 undergraduates were significantly correlated with learning data presented by Underwood and Schulz (see 35: 3113). Partial rs showed both familiarity and pronunciability to be independent predictors of learning speed. Use of frequency of occurrence as a measure of familiarity is criticized.—B. J. House.

2485. Wark, David Mayer. (U. Minnesota) **Longitudinal study of verbal learning in the stimulus equivalence and response equivalence paradigms.** *Dissert. Abstr.*, 1961, 22(6), 2084-2085.—Abstract.

2486. Wimer, Cynthia Crosby. (Rutgers U.) **Meaningfulness, similarity, and paired-associate learning.** *Dissert. Abstr.*, 1961, 22(5), 1728.—Abstract.

Reinforcement (Including Probability Learning)

2487. Brownstein, Aaron Joseph. (U. Missouri) **The effects of reinforcement magnitude on non-differentially reinforced choice behavior.** *Dissert. Abstr.*, 1961, 22(5), 1721.—Abstract.

2488. Cieutat, Victor J. (Louisiana State U. New Orleans) **Sex differences and reinforcement in the conditioning and extinction of conversational behavior.** *Psychol. Rep.*, 1962, 10(2), 467-474.—"Sixteen groups of four Ss each were used to investigate effects of sex of Ss, sex of E, non-verbal positive and negative reinforcement, and time, in the conditioning and extinction of amount of time spoken in a free-responding conversational situation." Positive and negative reinforcement were defined as E's attending to or ignoring S, respectively, when S spoke. Positive reinforcement was effective in producing an increase in quantity of conversation which lasted beyond withdrawal of the reinforcing agent. Reinforcement was more effective when administered by persons of the same sex as the individuals being reinforced.—B. J. House.

2489. Gerstein, Alvin I. (U. Rochester) **The effect of reinforcement schedules on meaning generalization and on awareness of the purpose of the experiment.** *J. Pers.*, 1961, 29(3), 350-362.—141 student Ss were presented with a series of nonsense syllable-meaningful word pairs. "One syllable was paired with words having an unpleasant connotation, and another . . . with words having a pleasant connotation. Transfer of meaning was measured by S's rating of the syllables upon a seven-point scale ranging from pleasant to unpleasant. The degree of awareness was determined from S's responses to several non-specific questions at the end of the testing procedures." Conclusion: transfer of meaning increases as a function of both continuous and partial reinforcement, but only in Ss expressing awareness of the relationship between the word pairs. (15 ref.)—G. T. Lodge.

2490. Little, Kenneth B., Brackbill, Yvonne, & Kassel, Stephen H. (U. Denver) **A test of a general utility theory model for probability learning.** *J. exp. Psychol.*, 1962, 63(4), 404-408.—80 6th grade children were required to predict the occurrence of alphabetical letters on 400 consecutive trials. There were 3 experimental conditions: the relative frequency of the most frequently appearing letter, the number of choices available, and the even or uneven division in frequency of occurrence of the less frequently appearing letters. The results were discussed in terms of a utility theory model derived from Siegel.—J. Arbit.

2491. Mandler, George; Preven, David W., & Kuhlman, Clementina K. (U. Toronto) **Effects of operant reinforcement on the GSR.** *J. exp. Anal. Behav.*, 1962, 5(3), 317-321.—"Each of nine college students was run for 11 daily sessions. Except for the first (operant level) and last two (extinction) sessions, 500-ohm drops in skin resistance were followed by reinforcement (light). These reinforcement periods lasted 20 min and were preceded by 10-min control periods during which no reinforcement was administered. Although the results showed no evidence for operant conditioning of the GSR, they did indicate that increased emission of GSR's occurred during the reinforcement period. This effect was shown to hold for Ss with low operant levels of GSR's but not for Ss with high operant levels."—J. Arbit.

2492. Portnoy, Maurice. (New York U.) **Conditioning of verbal behavior and its effect upon meaning: An experimental study of positive and negative reinforcement applied to word associations of varying strengths and its consequent effects upon meaning.** *Dissert. Abstr.*, 1962, 22(12), 4411-4412.—Abstract.

2493. Revusky, Samuel H. (VA Hosp., Northampton, Mass.) **Mathematical analysis of the durations of reinforced inter-response times during variable interval reinforcement.** *Psychometrika*, 1962, 27(3), 307-314.—In a free-responding situation in which reinforcements are scheduled by a variable interval program, the durations of reinforced inter-response times are shown to be a function of the durations of all inter-response produced by S and of the frequency of reinforcement.—Journal abstract.

2494. Taylor, Robert E. (U. Tennessee) **Extinction following qualitative change in the reinforcing stimulus.** *Dissert. Abstr.*, 1961, 22(3), 929.—Abstract.

Learning Theory

2495. Dinnerstein, D., & Egeth, H. (Rutgers U.) **On the development of associations.** *Psychol. Beitr.*, 1962, 6(3-4), 544-552.—Evidence for the gradual associative learning thesis is offered. A repetition of Estes' experiment with modified material indicates that the formation of an association is the development of a small trace structure within a larger one. The concept of intraserial interference is discussed, and some questions requiring further experimentation are indicated. (French & German summaries)—H. J. Priester.

2496. Flood, Merrill M. (U. Michigan) **Stochastic learning theory applied to choice experiments with rats, dogs, and men.** *Behav. Sci.*, 1962, 7(3), 289-314.—Discusses stochastic learning models

with particular emphasis upon symmetry models. Presents an analysis of synthetic data and of rats in a learning problem to show that the symmetry model is practical and satisfactory. The methods are then applied to an analysis of dog avoidance data (Solomon & Wynne, 1953), rat avoidance data (Theios, 1961) and human binary choice learning data. (22 ref.)—*J. Arbit.*

2497. Simon, Herbert A. (Carnegie Inst. Technology, England) **A theory of the serial position effect.** *Brit. J. Psychol.*, 1962, 53(3), 307-320.—The paper proposes a theory of the well-known serial position effect that makes quantitative predictions, acceptable by nonparametric tests, of the observed amount of bowing of the serial position curve. The theory, which stems from viewing the central nervous system as an information-processing system, is compared with the Lepley-Hull hypothesis and Atkinson's theory of the serial phenomena, and is shown to be more satisfactory than the older explanations.—*Journal abstract.*

RETENTION & FORGETTING

2498. Asch, Solomon E., & Ebenholtz, Sheldon M. (Swarthmore Coll.) **The process of free recall: Evidence for non-associative factors in acquisition and retention.** *J. Psychol.*, 1962, 54(1), 3-31.—The assumption that consecutive recall is a function solely of specific associative connections between the data of past experience was subjected to examination. Acquisition and recall of lists of nonsense syllables were studied by the method of free recall. Order of recall was not substantially related to the order of initial experience. Significant levels of RI were obtained under these conditions; the effects cannot be referred to competition of responses, to unlearning, or more generally, to damage of the associative bond. The determinants of free recall (and of RI effects) were interpreted in terms of the process of availability, which was distinguished from that of association.—*Author abstract.*

2499. Doob, Leonard W. (Yale U.) **The effect upon recall of syntactical construction in German.** *J. soc. Psychol.*, 1962, 57(1), 133-141.—2 versions of a story were distributed randomly to 157 German-speaking students in the South Tyrol. The story contained 40 syntactical constructions which were experimentally manipulated in order to investigate the relation to recall of a characteristic of the German language to separate 2 words through intervening words: the verb separated from its auxiliary, the subject from its verb, the verb from its prefix, and the article from its noun. Recall was found not to be significantly affected by the constructions. Instead, Ss were inclined to recollect presumably more familiar synonyms. A comparison confined to the expressions employed in the experiment revealed tendencies to recall expressions that had been perceived and that were non-separated and familiar.—*Author abstract.*

2500. King, D. J., & Yu, K. C. (American U.) **The effect of reducing the variability of length of written recalls on the rank order scale values of the recalls.** *Psychol. Rec.*, 1962, 12, 39-44.—"Two sets of fifteen recalls of two stories were selected so that they exhibited small amounts of variability in length. These two sets of recalls were scaled for accuracy of recall by the method of rank order. Factor analytic treatment of the intercorrelations of seven

accuracy of recall measures resulted in a two factor solution for both sets of recalls. Regression analysis indicated, as might be predicted, that the scaled scores were more influenced by nonlength than by length factors although even under these length restrictive conditions length of recalls still influenced judgments of accuracy of recall."—*R. J. Seidel.*

2501. Korn, James H., & Jahnke, John C. (Miami U.) **Recall and recognition as measures of immediate memory.** *Psychol. Rep.*, 1962, 10(2), 381-382.—"Using both a measure of recall and one of recognition, immediate memory spans for digits, consonants, high- (HAS), and low-association value nonsense syllables (LAS) were determined for 48 college students in a balanced Latin square design. The measure of recognition was associated with greater immediate retention than was the measure of recall. For either response measure, retention was a function of the class of material to be retained. A comparison of the nonsense materials showed that HAS were recalled better than LAS."—*B. J. House.*

2502. Nicks, T. Leon, Jr. (Boston U.) **The relationship between the leveling-sharpening principle of cognitive control and retroactive inhibition.** *Dissert. Abstr.*, 1961, 22(3), 917-918.—*Abstract.*

2503. Postman, Leo. (U. California) **The temporal course of proactive inhibition for serial lists.** *J. exp. Psychol.*, 1962, 63(4), 361-369.—Retention was tested by relearning after intervals of 30 sec., 30 min., and 7 days in college students who learned either 3 successive lists and were tested for recall of the 3rd, or learned and recalled a single list. The lists varied in the frequency of the words employed. Significant increases were found in the amount of PI as a function of time for both kinds of materials. This is consistent with the hypothesis that the growth of PI from extraexperimental sources is responsible for much of long-term forgetting.—*J. Arbit.*

2504. Yntema, Douwe B., & Mueser, Gayle E. (Massachusetts Inst. Technology) **Keeping track of variables that have few or many states.** *J. exp. Psychol.*, 1962, 63(4), 391-395.—Air Force officers and enlisted men were read messages as to the states of various variables. Occasionally these messages were interrupted and S was asked to recall the last message about a particular variable. Such conditions as the number of variables involved, the number of states each variable might assume, and the probability that a given message would change the state of a variable were varied. In no case did the number of alternative states have any significant effect on the fraction of the questions answered correctly, provided the fraction correct was adjusted for chance success. The probability of change was found to have a large effect.—*J. Arbit.*

2505. Zinchenko, P. I. (Kharkov State U., USSR) **Neproizvol'noe zapominanie.** [Involuntary memorization.] Moscow, USSR: RSFSR Academy Pedagogical Sciences, 1961. 563 p.—After discussing the history of the "problem of involuntary and voluntary memorization" in the Soviet Union and abroad, the author presents the results of research on (a) involuntary memorization in relation to activity, purposefulness, and motivation and (b) involuntary versus voluntary memorization of various types of textual material under a variety of conditions. The author closes with a discussion of the "development

and training of the processes of memorization."—*I. D. London.*

THINKING

2506. **Festinger, Leon.** **Cognitive dissonance.** *Scient. American*, 1962, 207(4), 93-107.—The theory of cognitive dissonance centers around the idea that if a person knows various things that are not psychologically consistent with one another, he will, in a variety of ways, try to make them more consistent. The remainder of the article is devoted to a discussion of 3 examples of dissonance: the effects of making a decision, of lying, and of temptation. The examples show the kinds of dissonance-reduction effects that are obtained under special circumstances.—*L. A. Wauck.*

2507. **Hunter, Ian M. L.** (Edinburgh U., England) **An exceptional talent for calculative thinking.** *Brit. J. Psychol.*, 1962, 53(3), 243-258.—This study explores the highly exceptional "lightning calculation" of a distinguished mathematician who has considerable understanding of his own calculative thinking. Each calculation is a temporally co-ordinated, rapidly flexible onleading which is both unitary and complex. Biographically, it derives from prolonged and intensive practice fostered by circumstances in his upbringing and made possible by a large cognitive capacity which also manifests itself in other forms of intellectual achievement. During calculation, there are "leaps" of varying compass; there is also notable absence of sensory-type awareness. Ongoing proceeds through apprehending multiple attributes of the presented problem, deciding on some convenient and often ingenious calculative plan, and rhythmically implementing this plan while carrying through opportunistic telescoping and verifying of the ongoing activity.—*Journal abstract.*

2508. **Ramul', K. A.** (Tortuskii U.) **Psikhologiya myshleniya i problema vospitaniya myshliniya.** [The psychology of thinking and the training of thinking.] *Vop. Psikhol.*, 1962, No. 1, 45-52.—While traditional logic helps us check the correctness of our thinking, there is no logic or other aid for inventive or creative thinking. The following 7 general rules are suggested for helping children learn to think creatively: Don't hurry with the solution of problems. Ascertain all the information necessary to solve the problem. Preserve flexibility of thinking. Avoid negative transfer from one problem to another. Avoid functional fixedness. Realize that the solution of many modern problems requires a large fund of technical knowledge. Realize that in some cases solutions are found accidentally. Examples of problems are given where these rules may be helpful.—*H. Pick.*

Problem Solving

2509. **Arana, L., & Sokolov, E. N.** (Moscow State U., USSR) **Stokhasticheskaia teoriia vospriiatii. Soobshchenie VI. Otsenka éffektivnosti vospriiatii na osnove analiza traektorii dvizheniia pri osiazanii.** [The stochastic theory of perception. Communication VI. Effectiveness of perception evaluated by analyzing the trajectory of tactile movement.] *Dokl. Akad. Pedag. Nauk RSFSR*, 1962, No. 2, 61-64.—Ss were asked to identify by touch 6 capital letters of the Russian alphabet formed with checkers. Probability of occurrence was the same. The purpose was to find the basic cells which yield the maximum

information in tracing the letters. Ss were guided by a "subjective system of hypotheses" in examining, eliminating, or following certain solutions. A tendency was noticed for the subjective system of hypotheses to approximate the objective system of hypotheses actually used during the experiment.—*A. Cuk.*

2510. **Laughery, K. R., & Gregg, I. W.** (IBM) **Simulation of human problem-solving behavior.** *Psychometrika*, 1962, 27(3), 265-282.—In the simulation of human behavior on a digital computer, one first attempts to discover the manner in which Ss internally represent the environment and the rules that they employ for action upon this representation. The interaction between the rules and the environmental representation over a period of time constitutes a set of processes. Processes can be expressed as flow charts which, in turn, are stated formally in terms of a computer program. The program serves as a theory which is tested by executing the program on a computer and comparing the machine's performance with S's behavior.—*Journal abstract.*

2511. **Lénárd, Ferenc.** **A problémamegoldás fáziskapcsolatai.** [Phase connections in problem solving.] *Pszichol. Tanulmányok*, 1958, 1, 57-69.—Puzzles were given to undergraduate students and they were asked to "think aloud" during the process of solving them. 9 phases are distinguished and described: stating of facts, modification of the problem, proposition of solution, criticism, following side-tracks, wondering (pleasing), irritation, doubt, abandoning the task. Frequency tables show the order in which each phase preceded or followed each other. Russian & English summaries.—*E. Friedman.*

2512. **Linker, Eugene.** (Rutgers U.) **An analysis of human patterned-alternation problem solving.** *Dissert. Abst.*, 1961, 22(5), 1724-1725.—*Abstract.*

2513. **Robertson, D. G., & Ammons, R. B.** **"Problem" norms for the Standard Anagram Task.** *Proc. Mont. Acad. Sci.*, 1962, 21, 97-104.—"Highly reliable solution frequency norms for the Standard Anagram Task were obtained for six basic letter combinations, based on solutions given by 80 Ss. . . . There was an appreciable correlation between frequency with which a solution was given and frequency of use of the solution as a word in everyday language. It was concluded that this task should be useful for studying certain basic questions about problem solving."—*C. H. Ammons.*

Concepts

2514. **Carlson, Earl R.** (Long Beach State Coll.) **Generality of order of concept attainment.** *Psychol. Rep.*, 1962, 10(2), 375-380.—A concept formation test using Heidebreder's technique and stimuli was administered to 5 groups (N = 77) differing in age, education, and background: early adolescents, adults, art students, Chinese students, and college students. The same order of difficulty—object, form, and number—was found for each group. A significant Concept x Groups interaction was discussed in relation to possible effects of personal factors.—*B. J. House.*

2515. **Feldman, Solomon E.** (Indiana U.) **Responses to ambiguous "concept classes" as a function of frequency of association during learning.** *Dissert. Abst.*, 1961, 22(5), 1722-1723.—*Abstract.*

2516. Harrow, Martin. (Indiana U.) Factors involved in the facilitative effects of learning reversal shifts. *Dissert. Abstr.*, 1961, 22(6), 2078.—*Abstract.*

2517. Huttenlocher, Janelle. (Harvard U.) Effects of manipulation of attributes on efficiency of concept formation. *Psychol. Rep.*, 1962, 10(2), 503-509.—30 7th-grade boys were tested on a series of concept formation problems requiring S to select the correct block of a set with relevant dimensions of form and brightness. $\frac{1}{2}$ the Ss (Group M) were allowed to manipulate the blocks to construct instances for test. Correct instances were indicated by light and buzzer, incorrect instances by nothing. Each S of Group M had a matched S in Group NM who was presented with the same sequences of instances (as constructed by the Group M S) but was not allowed to manipulate the blocks. Group NM performed significantly better than Group M. It was surmised that planning of manipulative responses distracted Group M Ss from the task of remembering and interpreting material previously presented.—*B. J. House.*

2518. Sechrest, Lee, & Wallace, John. (Northwestern U.) Assimilation and utilization of information in concept attainment under varying conditions of information presentation. *J. educ. Psychol.*, 1962, 53(4), 157-164.—Concept attainment by 151 Ss was studied under 4 conditions of information transmission equated in value: (a) initial positive instance, (b) initial positive instance plus list of possible hypotheses remaining, (c) initial positive instance plus list of hypotheses eliminated, and (d) initial positive instance and exposure to array comprised only of positive instances of possible remaining hypotheses. The task was attainment of a single 2-attribute concept by means of free selection from an array completely visible to S. Results indicated: (a) groups did not differ in number of instances required for solution or in relevance of 1st verbalized hypotheses; (b) inefficient performance was not attributable to failure of information assimilation, but Ss did not utilize all available information; (c) Conditions III and IV resulted in a significantly greater number of redundant hypotheses.—*Journal abstract.*

2519. Wolfgang, A., Pishkin, V., & Lundy, R. M. (VA Hosp., Tomah, Wis.) Anxiety and misinformation feedback in concept identification. *Percept. mot. Skills*, 1962, 14(1), 135-143.—Increases in the degree of misinformation had a progressively negative influence upon concept learning. Also misinformation feedback retarded concept performance more as task complexity increased, as indicated by the significant misinformation feedback and complexity interaction. Performance was significantly inhibited as a function of systematic increases in irrelevant information or task complexity. In general, the results show that anxiety has no appreciable effect on the degree to which misinformation feedback and task complexity affect learning in concept identification problems. (21 ref.)—*W. H. Guertin.*

DECISION & INFORMATION THEORY

2520. Ackoff, R. L. (Ed.) (Case Inst. Technology) Scientific method: Optimizing applied research decisions. New York: Wiley, 1962. xii, 464 p. \$10.25.—Analytical techniques for deriving numerical optimizing values of controlled variables in

abstract symbolic decision models are discussed. That justification of such values is largely intuitive is recognized by the authors. Procedures for minimizing expected cost of error are compared.—*K. J. Hartman.*

2521. Bartoshuk, Alexander K. (Brown U.) Response decrement with repeated elicitation of human neonatal cardiac acceleration to sound. *J. comp. physiol. Psychol.*, 1962, 55(1), 9-13.—Heart rate was measured before and after an 85-db. sound, 1 sec. in duration. 40 trials were given to each of 120 neonates (1-4 days of age), with interstimulus intervals of 15, 30, or 60 sec. Acceleration was noted on all trials, and was greater in older Ss. Response decrement appeared across trials, and was not related to age, sex, or interstimulus interval. It is concluded that the decrement is not due to neural fatigue, but may be an indicator of the habituation of arousal; the results suggest that the tonic arousal reaction habituates more readily than the phasic one.—*W. A. Wilson, Jr.*

2522. Berlyne, D. E. (Boston U.) Uncertainty and epistemic curiosity. *Brit. J. Psychol.*, 1962, 53(1), 27-34.—2 experiments were concerned with the effects of uncertainty on epistemic curiosity. Quotations, each coupled with the names of possible authors and with a distribution of fictitious experts' guesses regarding the true author, formed the experimental material. The role of uncertainty was predicted from a theory according to which epistemic curiosity will increase with degree of conceptual conflict. The 2 experiments showed reported curiosity to increase with 2 determinants of uncertainty and degree of conflict, namely (a) number of alternative responses and (b) evenness of distribution of response-strength, respectively. They also revealed ways in which response uncertainties, dependent on distributions of Ss' guesses, differ from the corresponding stimulus uncertainties.—*Author abstract.*

2523. Blackman, Sheldon. (Ireland Army Hosp., Fort Knox, Ky.) Some factors affecting the perception of events as chance determined. *J. Psychol.*, 1962, 54(1), 197-202.—180 Ss were exposed to series of red and green lights appearing with equal frequency. It was found that sequence length and the number of sequences significantly affect the number of red responses in extinction. The results appear to be understandable on the basis of a skill orientation developing on the part of Ss who received long sequences, or sequences readily perceived as patterned and a chance orientation developing on the part of Ss who received short sequence or nonpatterned sequences.—*S. Blackman.*

2524. Bodrov, V. A., Genkin A. A., & Zarakovskii, G. M. (Leningrad, USSR) Nekotorye zakonomernosti reaktsii cheloveka na testovye zadachi, modeliruiushchie priniatie odnogo iz dvukh vozmozhnykh reshenii: Soobshchenie I. Zavisimost' chastoty poiavleniia oshibok ot slozhnosti signalov i veroiatnosti ikh poiavleniia. [Human reaction to test problems involving choice between two possible solutions: Communication I. Frequency of errors as a function of the complexity and the probability of signals.] *Dokl. Akad. Pedagog. Nauk RSFSR*, 1961, No. 5, 77-80.—15 male Ss (age 19-33) were asked to decide as fast as possible whether or not a number was divisible by 3. RT and errors were recorded. Probability of occurrence of a number divisible by 3 was $\frac{1}{3}$. It was pointed out that errors

depend upon the length of numbers and upon the nature of the previous answers.—*A. Cuk.*

2525. Bodrov, V. A., Genkin, A. A., & Zarakovskii, G. M. (Leningrad, USSR) *Nekotorye zakonomernosti reaktsii cheloveka na testovye zadachi, moreliruiushchie priniatie odnogo iz dvukh vozmozhnykh reshenii. Soobshchenie II. Analiz poiavleniia oshibok s tochki zreniia teorii informatsii.* [Some laws of human reactions to test problems with two possible solutions. Communication II. Analysis of mistakes in the light of information theory.] *Dokl. Akad. Pedag. Nauk RSFSR*, 1962, No. 2, 99-102.—When Ss react to signals, their errors depend upon the complexity of signals and the probability of their occurrence. Further discussion of obtained data shows that "the cortex in receiving and transforming signals of certain types functions as a system striving to diminish the loss of information through a definite distribution of the error probabilities."—*A. Cuk.*

2526. Fitts, Paul M., & Switzer, Gail. (U. Michigan) *Cognitive aspects of information processing: I. The familiarity of S-R sets and subsets. J. exp. Psychol.*, 1962, 63(4), 321-329.—"The investigation concerned S's ability to reduce his reaction time (RT) on the basis of knowledge that only a small subset of a larger, familiar alphabet would occur as stimuli in a particular experiment. It was predicted that Ss could make effective use of this knowledge only when the smaller subset itself constituted a highly familiar group. . . . The results of three experiments were in agreement with the predictions. . . . These results support the view that information-handling rate is in part a function of cognitive sets which reflect the preparation which S makes, in advance, for responding to any one of a group of stimuli. Some characteristics of these cognitive sets are discussed, and the notion is related to recent theories of choice behavior."—(29 ref.)—*J. Arbit.*

2527. Krinchik, E. P. (Dept. Psychology, Moscow U., USSR) *Izuchenie protsessa pererabotki informatsii chelovekom v situatsii vybora: Soobshchenie I. Vliianie faktora znachimosti otdel'nogo signala na zavisimost' vremeni reaktsii vybora ot informatsionnoi emkosti etogo signala.* [Elaboration of information in a choice situation: Communication I. Effect of signal meaningfulness on choice RT and its relation to the information capacity of signals.] *Dokl. Akad. Pedag. Nauk RSFSR*, 1961, No. 5, 73-76.—Introduction to a study on information done under the direction of A. N. Leont'ev. A double problem was investigated: (a) RT as a function of the quantity of information contained in individual signals, and (b) RT as function of the meaningfulness. Methodological procedures are discussed. Some preliminary results are presented.—*A. Cuk.*

2528. Myers, Jerome L., & Katz, Leonard. (U. Massachusetts) *Range of payoffs and feedback in risk taking. Psychol. Rep.*, 1962, 10(2), 483-486.—36 undergraduate males were required to choose between a known payoff of +1 or -1 chip and an unknown payoff on each of 150 trials. For ½ the group (CF), value of the unknown payoff was revealed at the end of each trial, while the other half (PF) saw only unknown payoffs they had chosen. 3 different ranges of unknown payoffs were tested in 3 different sessions. Among significant effects were (a) more risk taking under PF than CF conditions,

(b) more risk taking on -1 than +1 trials, (c) a bigger difference between PF and CF on -1 trials, and (d) more risk taking with a medium range than narrow or wide ranges of unknown payoffs on +1 trials and the reverse on -1 trials.—*B. J. House.*

2529. Nalven, Fredric Bertram. (Boston U.) *Defense preference and perceptual decision making. Dissert. Abstr.*, 1961, 22(4), 1258.—*Abstract.*

2530. Napalkov, A. V. (Dept. Higher Nervous Activity, Moscow State U., USSR) *Nauchnaya konferentsiya "obuchayushchiesya avtomaty i pererabotka informatsii v organizmakh."* [Scientific conference "learning automations and the processing of information in organisms."] *Vop. Psikh.*, 1962, No. 1, 168-177.—This is a report of a conference held in Karlsruhe, Germany in April 1962. Discussed are the reports of A. Newell (Carnegie Institute of Technology), K. Shtenbuch (Karlsruhe), Tsemanek (Vienna), B. Gramer and F. Ventsel (Darmstadt, Germany), and A. Andrew (England).—*H. Pick.*

2531. Schusterman, Ronald Jay. (Florida State U.) *The use of strategies in the decision-behavior of children, chimpanzees and monkeys. Dissert. Abstr.*, 1961, 22(4), 1267.—*Abstract.*

2532. Stone, LeRoy A. (U. North Dakota) *Reliability of a utility for risk measure. Psychol. Rep.*, 1962, 10(2), 516.—An acceptable split-half reliability coefficient was obtained for a test administered to 279 undergraduates which measured individual decision-making responses using Ziller's Test Risk Score formula (see 33: 568).—*B. J. House.*

2533. Suydam, Mary M., & Myers, Jerome L. (U. Massachusetts) *Some parameters of risk-taking behavior. Psychol. Rep.*, 1962, 10(2), 559-562.—85 male undergraduates were required to choose between a known payoff ranging from \$-.05 to \$+.05 and a 50-50 chance of getting a gain or loss of from \$.05 to \$.25 on each of 25 trials. In a 2nd set of 25 trials, the above alternatives were multiplied by a factor of 10. Ss also rated each choice with respect to certainty. For both sets, preference for a gamble was greater for a known loss than a known gain. As range of unknown gain or loss increased, preference for a gamble increased against a negative alternative and decreased against a positive alternative. Results were related to previous findings.—*B. J. House.*

PHYSIOLOGICAL PSYCHOLOGY

2534. Braïnes, S. N., Napalkov, A. V., & Svechin-skii, V. B. *Neirokibernetika.* [Neurocybernetics.] Moscow, USSR: Medgiz, 1962. 172 p.—This book is both an introduction to neurocybernetics and a presentation of some of the Soviet research being pursued in this area. The authors discuss in particular the application of neurocybernetics to physiology and medicine.—*I. D. London.*

2535. Chernorutskii, M. V. *Ocherki fizologii umstvennogo truda.* [Essays on the physiology of mental activity.] Moscow, USSR: Medgiz, 1962. 32 p.—These essays discuss the Pavlovian types of higher nervous activity, learning as a form of mental activity, and the application of the foregoing to medical education.—*I. D. London.*

2536. Chkhaidze, L. V. (Georgian Inst. Physical Culture, Tbilisi, USSR) *Znachenie dinamicheskikh sostavliaiushchikh v tsentral'noi reguliatsii koor-*

dinatsionnoi struktury lokomotornykh aktov u cheloveka. [The significance of dynamic components in the central regulation of coordination of the structure of locomotor acts in man.] *Biofizika*, 1962, 7(4), 460-467.—In the "coordinated structure of complex voluntary movements" one may distinguish a series of dynamic components which define the parameters of realizing the meaningful aim of a given motor act." These components are termed basic. There are also components which may be viewed as "auxiliary or accompanying." The former are formed in the muscular periphery for the "creation of dynamic stability and the greatest biomechanical suitability of a given movement." The "basic efforts" of movements appear to be regulated by "external feedback," with their "program" formed in the highest divisions of the central nervous system; while "auxiliary efforts" appear to be regulated by "internal feedback," with their "program" formed in the lower divisions of the central nervous system. It is concluded that the "biomechanical features of the basic components of movements require their separation from the general coordinated structure in order to permit in necessary cases a decisive intervention [on the part] of the higher divisions of the central nervous system."—*I. D. London.*

2537. **Cutt, R. A., & Gluick, W. L.** (U. Delaware) An instrument for temperature measurement in physiological and psychological research. *Psychol. Rec.*, 1962, 12, 35-37.—Originally designed to measure intracochlear temperatures in cats, the instrument, composed of a thermistor and a bridge circuit has been suitable for general measurement of small temperature changes. Value is that the resistance of a thermistor varies markedly with its changes in temperature. Calibration data obtained from immersion in mercury bath.—*R. J. Seidel.*

2538. **Schmitt, Francis O. (Ed.)** Macromolecular specificity and biological memory. Cambridge, Mass.: Massachusetts Institute of Technology, 1962. viii, 119 p. \$3.00.—A summary of 25 lectures which were originally offered to stimulate exploration and discussion of the possibility that learning and memory might have its basis in a macromolecular code within brain cells.—*M. J. Wayner, Jr.*

2539. **Voronin, L. G.** (Inst. Higher Nervous Activity & Neuropsychology, USSR Acad. Science, Moscow, USSR) Some results of comparative-physiological investigations of higher nervous activity. *Psychol. Bull.*, 1962, 59(3), 161-195.—Based on the principles of the conditioned reflex, a number of systematic studies are reported in some detail. 2 general conclusions emerge: (a) "the peculiarities of higher nervous activity in vertebrates of different phylogenetical levels are based on the quantitative growth and complication of the conditioned reflex mechanisms; but the principle of the organism's interaction with environment is identical in all cases." (b) "the basic mechanism of higher nervous activity . . . is a mechanism of analysis and synthesis of stimulation falling on the organism, as well as of the activity arising in respect to it."—*W. J. Meyer.*

NEUROANATOMY & PHYSIOLOGY

2540. **Denisenko, P. P.** (Inst. Experimental Medicine, Akad. Medical Science, USSR) Sravnitel'noe vliyanie vesestv vozduzhdajusih i diokirujusih holinoreaktivnorie sistemori na dioelektriceskiju aktivnostor korori i retikuljarnoj formacii glov-

nogo mozga. [Comparative effects of substances exciting and blocking cholinergic systems on the bioelectric activity of the brain cortex and its reticular formation.] *Farmakol. Toksikol.*, 1962, 25(1), 8-15.

2541. **Krolikowska, Wieslawa, & Szapiro, Marek.** (Acad. Medicine, Lodz) Étude électromyographique des réponses d'extension. [An electromyographic study of extension responses.] *Encephale*, 1961, 50(5), 517-524.—2 methods of evoking extension responses are compared: ordinary exteroceptive stimulation and combined proprio-exteroceptive stimulation. The combined method sometimes reveals a latent response, when electrical activity is found in the extensor muscle. If the response can be evoked by purely exteroceptive stimulation, the combined stimulation often increases the response. Both the number and amplitude of the extensor potentials are clearly augmented.—*W. W. Meissner.*

2542. **Makarov, P. O.** (Leningrad State U.) Uslovnoreflektornye izmeneniia funktsional'nogo sostoianiia opticheskogo analizatora i elektroentsefalogrammy cheloveka. [Conditioned-reflex changes in the functional state of the visual analyzer and electroencephalogram in man.] In *Problemy sovremennoi fiziologii nervnoi i myshechnoi sistem.* [Problems in contemporary physiology of the nervous and muscular systems.] Tbilisi, USSR: Gruzinskoi SSR Academy of Sciences, 1956. Pp. 361-371.—Besides the usually understood conditioned and unconditioned reflexes, there exist reflexes which manifest themselves as an alteration in the functional state of the receptors, their centers, etc.—the so-called "tuning" reflexes. Conditioned tuning reflexes were observed in the visual analyzer in man for microintervals of time. One eye was illuminated by a brief stimulus of given intensity, duration, and area. Alterations of excitability in response to adequate visual stimuli of various durations were observed at selected intervals (in msec.) by means of an optic adequometer designed by the author. Conditioned reflexes were observed as changes in the electroencephalogram arising in response to short exposure of the visual analyzer to light. After a number of combinations with light, a puff of air caused a change in the EEG analogous to that observed in response to a visual stimulus.—*I. D. London.*

2543. **Parker, Donald Edward.** (Princeton U.) Vertical organization of the auditory cortex of the cat. *Dissert. Abstr.*, 1961, 22(6), 2082-2083.—*Abstract.*

LESIONS & BEHAVIOR

2544. **Abelson, Robert Miles.** (Boston U.) A behavioral analysis of some ventral auditory pathways in the medulla of the rat. *Dissert. Abstr.*, 1961, 22(3), 921.—*Abstract.*

2545. **Affanni, J., Marchiafava, P. L., & Zernicki, B.** (U. Pisa, Italy) Higher nervous activity in cats with midpontine pretectal transections. *Science*, 1962, 137(Whole No. 3524), 126-127.—In cats with midpontine pretectal transections, orientation reflexes to visual stimuli consist only of vertical eye movements, pupillary dilation, and electroencephalographic arousal. Extinction of the orientation reflex by repetition of the photic stimulus is easily obtained; the reflex partially recovers after a few minutes of rest. By using as reinforcement stimulation of hypothalamus producing pupillary di-

lation and EEG arousal, conditioned responses to a visual stimulus may be obtained. The cat with mid-pontine pretrigeminal transection can be used as convenient preparation for the study of orientation and conditioned reflexes.—*Journal abstract.*

2546. Ebner, Ford F., & Myers, Ronald E. (Johns Hopkins School Medicine) Direct and transcallosal induction of touch memories in the monkey. *Science*, 1962, 138(Whole No. 3536), 51-52.—A monkey, after corpus callosum transection, will fail to recall through one hand tactual tasks that he has learned through the other hand. However, if a monkey has already learned a task through one hand, destruction of the corpus callosum does not greatly affect his subsequent recall of that task through the other hand. It is concluded that task learning through one hand develops separate memory trace systems in both hemispheres.—*Journal abstract.*

2547. Kling, Arthur. (Michael Reese Hosp., Chicago, Ill.) Amygdalectomy in the kitten. *Science*, 1962, 137(Whole No. 3528), 429-430.—Kittens sustaining bilateral amygdalectomy failed to show behavioral changes seen in the adult after subsection to similar lesions. No growth deficits or hypopituitarism occurred in the kittens. A certain level of neuroendocrine maturation may be necessary for the effects of amygdalectomy to be manifested.—*Journal abstract.*

2548. Kusama, Toshio; Kojima, Tokuzo, & Ootani, Katsumi. (U. Tokyo) An experimental study on autonomic functions in the mesencephalon and pons of rabbits. *Folia psychiat. neurol. Jap.*, 1961, 15(4), 336-370.—Electrolytic lesions were produced unilaterally in 50 rabbits. An increase of behavioral excitability followed lesions in the lateral central gray at the caudal mesencephalic level. Gastric bleeding, a fall in body temperature, a decrease in urine chloride, and glycosuria followed lesions in other circumscribed areas.—*W. A. Wilson, Jr.*

2549. Migler, Martin. (U. Pittsburgh) The effects of fornix lesions on emotional and timing behavior in the rhesus monkey. *Dissert. Abstr.*, 1961, 22(3), 925.—*Abstract.*

2550. Mishkin, Mortimer; Prockop, Elinor S., & Rosvold, H. Enger. (National Inst. Mental Health) One-trial object-discrimination learning in monkeys with frontal lesions. *J. comp. physiol. Psychol.*, 1962, 55(2), 178-181.—Frontal, inferotemporal, and unoperated monkeys were tested on a series of one-trial learning problems involving delayed matching or nonmatching from baited or unbaited samples. All animals tended to choose the new object on the test trial, regardless of their pretrial experience. When this response was correct, frontals performed at a high level; otherwise, they performed poorly. "The analysis suggests that frontal lesions produce abnormal difficulty in suppressing whatever response normally prevails in a given situation." *W. A. Wilson, Jr.*

2551. Pogorelova, P. M. (Herzen Pedagogical Inst., Leningrad) Vliianie pererezki zadnikh stolbov spinnogo mozga na dvigatel'nye pishchevye uslovnye refleksy u sobak. [Effect of the cutting of posterior columns of the spinal cord on the motor alimentary CR in dogs.] *Zh. vyssh. nervn. Deiatel.*, 1961, 11(6), 1089-1093.—The following motor CRs in response to acoustic and to tactile stimuli were

elaborated in 3 dogs: seizing a ring with the teeth, moving a fore and a hind leg. When the spinal cord was cut at the level of the first cervical vertebra, the jaw reflex remained unchanged whereas the limb reflexes disappeared and could be reestablished only within a period from 5 to 11 months. The behavior reactions of the dogs to verbal commands did not change in the least.—*A. Cuk.*

2552. Oakley, Bruce, & Pfaffmann, Carl (Brown U.) Electrophysiologically monitored lesions in the gustatory thalamic relay of the albino rat. *J. comp. physiol. Psychol.*, 1962, 55(2), 155-160.—Lesions were placed in the medial extension of the nucleus ventralis of the rat thalamus, in sites of electrical response to taste stimulation of the tongue. On 2-bottle tests, operated rats showed a significant elevation of the rejection threshold for quinine, and a reduction in intake of normally-preferred concentrations of sucrose and sodium chloride solutions.—*W. A. Wilson, Jr.*

2553. Ratner, Stanley C. (Michigan State U.) Conditioning of decerebrate worms, *Lumbricus terrestris*. *J. comp. physiol. Psychol.*, 1962, 55(2), 174-177.—Conditioning, to a vibratory CS, of a withdrawal response elicited by a light US was studied in 2 groups of decerebrate earthworms. Imposition of a long delay in the apparatus before training did not affect the subsequent course of conditioning. The failure of worms to show CRs when trials are spaced was confirmed, and was explained in terms of the reduction in URs during spaced training.—*W. A. Wilson, Jr.*

BRAIN STIMULATION

2554. Carrea, Raul, & Lanari, Alfredo. (U. Nacional Buenos Aires, Argentina) Chronic effect of tetanus toxin applied locally to the cerebral cortex of the dog. *Science*, 1962, 137(Whole No. 3527), 342-343.—Tetanus toxin injected into the cortex produces convulsion, neurological disability, and a strychnine-like discharging focus, appearing after a minimal latency of 2 days and lasting more than a month. Such a focus, apparently caused by a blockade of inhibitory synapses, does not demonstrate any major damage in microscopic studies.—*Journal abstract.*

2555. Fox, Stephen S., & O'Brien, James H. (U. Michigan) Inhibition and facilitation of afferent information by the caudate nucleus. *Science*, 1962, 137(Whole No. 3528), 423-424.—Stimulation of the caudate nucleus modifies inputs to the visual system of the cat. The modification of such sensory information is similar to the modification seen on stimulation of the thalamus and brain stem reticular formation. Preliminary stimulation of the caudate nucleus at different intervals prior to the afferent input may have facilitatory or inhibitory effects on both evoked potentials and unitary responses of the visual cortex.—*Journal abstract.*

Central Stimulation

2556. Albino, R. C., & Lucas, J. W. (U. Natal, Durban, South Africa) Mutual facilitation of self-rewarding regions within the limbic system. *J. comp. physiol. Psychol.*, 1962, 55(2), 182-185.—In each of 4 rats, an electrode was implanted in the septal region, and another was placed elsewhere in the brain. When response to a bar produced a

stimulus from both electrodes, 2 of the rats pressed at a rate greater than the sum of their rates for stimulation of the 2 points separately. The 2nd electrodes of these animals were in the substantia nigra, and between the reticular substance and the red nucleus, respectively. It is suggested that the limbic system has positive feedback mechanisms.—*W. A. Wilson, Jr.*

2557. Boyd, E. S., & Gardner, L. C. (U. Rochester) **Positive and negative reinforcement from intracranial stimulation of a teleost.** *Science*, 1962, 136(Whole No. 3516), 648-649.—Tests in which an animal receives or avoids direct electrical stimulation of its brain according to its position in the tank as well as tests of free operant behavior demonstrate the existence of both positively and negatively rewarding areas in the brain of the goldfish.—*Journal abstract.*

2558. Deutsch, J. A., & Howarth, C. I. (Stanford U.) **Evocation by fear of a habit learned for electrical stimulation of the brain.** *Science*, 1962, 136(Whole No. 3521), 1057-1058.—Rats were trained to press a lever for electrical stimulation of the brain. After extinction of the habit, fear-producing stimuli (a buzzer or electrical shock to the feet) recalled the rat to the lever, although its lever pressing on these occasions never produced further intracranial stimulation. Operant levels of the lever-pressing habit were also greatly increased for long periods following the fear-producing stimuli. The phenomenon is most striking in rats trained with tegmental electrodes and is almost completely absent in rats trained with electrodes in the hypothalamus. This suggests that electrical self-stimulation in some sites may be caused by an activation of mechanisms underlying normal fear and escape.—*Journal abstract.*

2559. Entet, Noble Dewey. (U. Houston) **Differential behavioral effects of emotional facilitation from central and peripheral stimulation.** *Dissert. Abstr.*, 1961, 22(3), 912.—Abstract.

2560. Hodos, William, & Valenstein, Elliot S. (Walter Reed Army Inst. Research, Washington, D. C.) **An evaluation of response rate as a measure of rewarding intracranial stimulation.** *J. comp. physiol. Psychol.*, 1962, 55(1), 80-84.—Rats were provided with 2 levers, which led to stimulation in the septal and posterior hypothalamic areas, respectively. Choices of the area of stimulation were measured at various levels of intensity. Independent measures of response rate showed that relative rate is not an accurate index of preference. Within a single area, a higher intensity was always preferred, even when the rate of self-stimulation at the higher intensity was less than the rate at the lower intensity.—*W. A. Wilson, Jr.*

2561. Howarth, C. I., & Deutsch, J. A. (Stanford U.) **Drive decay: The cause of fast "extinction" of habits learned from brain stimulation.** *Science*, 1962, 137(Whole No. 3523), 35-36.—According to Deutsch's theory of intracranial self-stimulation, cessation of responding after the withdrawal of the stimulus should be a simple function of time without stimulation. To test this prediction, the lever was withdrawn from a Skinner box for varying times, then replaced and normal extinction completed. The number of extinction trials was a simple function of the time the lever was out of the box, thus confirming Deutsch's hypothesis that cessation of responding in this instance is due to a decay of a

motivational excitation produced by the electrical stimulation, and not a function of the number of unreinforced trials as in normal extinction.—*Journal abstract.*

2562. Ikeda, Terutika. (Tottori U. School Medicine, Japan) **Effect of stimulation of the amygdaloid complex upon conditioned avoidance.** *Folia psychiat. neurol. Jap.*, 1961, 15(3), 157-174.—Electrical stimulation of points in the amygdala and hippocampus of cats caused temporary loss of conditioned avoidance responses, an inhibitory effect which appeared to be maintained during the period of after-discharge. In an alternation avoidance situation, some electrode placements led to facilitation of response. It is concluded that stimulation of the amygdala has inhibitory and facilitative influences upon the motivational systems of the hypothalamus.—*W. A. Wilson, Jr.*

2563. Lilly, J. S., & Miller, A. M. (Communication Research Inst., Miami, Fla.) **Operant conditioning of the bottlenose dolphin with electrical stimulation of the brain.** *J. comp. physiol. Psychol.*, 1962, 55(1), 73-79.—A technique is described for placing electrodes in the brain of the unanesthetized bottlenose dolphin, *Tursiops truncatus*. Illustrative results of stimulation in positively and negatively reinforced areas are given. It is concluded that, compared to the monkey, the "large brain of the dolphin thus affords: (a) faster learning, (b) greater control over reactions to stimulation of subcortical systems which are motivationally active, and (c) control and use of vocalizations to obtain 'rewards' and to stop 'punishments.'"—*W. A. Wilson, Jr.*

2564. Mogenson, G. J. (U. Saskatchewan) **Avoidance learning to aversive brain stimulation.** *Psychol. Rep.*, 1962, 10(2), 558.—Successful avoidance learning in a shuttle-box was found for 2 out of 3 rats showing strong fear reactions to intracranial stimulation (ICS). Several interpretations of the effect of ICS are discussed.—*B. J. House.*

2565. Nielson, Harold C., Knight, James M., & Porter, Paul B. (VA Hosp., Kansas City, Mo.) **Subcortical conditioning, generalization, and transfer.** *J. comp. physiol. Psychol.*, 1962, 55(2), 168-173.—Each of 25 cats was trained to respond to electrical stimulation of a subcortical structure in order to avoid shock, and then was tested for responsiveness to other stimuli. Of 22 structures investigated, at least 21 served adequately as sites of CS administration. Stimulus generalization was found between frequencies, but not between structures, except, possibly, to the mesencephalic reticulum.—*W. A. Wilson, Jr.*

2566. Novin, Donald. (Kungl. Veterinärhögskolan, Stockholm, Sweden) **The relation between electrical conductivity of brain tissue and thirst in the rat.** *J. comp. physiol. Psychol.*, 1962, 55(2), 145-154.—Electrodes were implanted in rats' brains in order to measure conductivity and thus obtain an estimate of extracellular electrolyte concentration. Changes in conductivity correlated significantly with amount of water intake in various situations involving water deprivation and consumption, eating of dry food, and injections of hypertonic saline. However, a saline injection caused more increase in concentration relative to water intake than did water deprivation. The possible influence upon water intake of

intracellular electrolytes and extracellular fluid volume is discussed.—*W. A. Wilson, Jr.*

2567. Roberts, Warren W. (Syracuse U.) Fear-like behavior elicited from dorsomedial thalamus of cat. *J. comp. physiol. Psychol.*, 1962, 55(2), 191-197.—A fear-like crouching response was elicited by stimulation of an area in n. medialis dorsalis in cats. The animals then learned to avoid stimulation of this area, leading to the conclusion that the crouching response is accompanied by an aversive drive, and the suggestion that this area forms part of the central mechanism of fear.—*W. A. Wilson, Jr.*

2568. Vaughan, Eva, & Fisher, Alan E. (U. Pittsburgh) Male sexual behavior induced by intracranial electrical stimulation. *Science*, 1962, 137(Whole No. 3533), 758-760.—Electrical brain stimulation in the anterior dorsolateral hypothalamus produced a marked increase in sexual capacity in some male rats. Several measures of sexual behavior, including the length of the postejaculatory refractory period, were significantly affected.—*Journal abstract.*

2569. von Holst, Erich. Electrically controlled behavior. *Scient. American*, 1962, 206(3), 50-60.—By energizing electrodes placed in various regions of a chicken's brain, the animal can be made to carry out most of the actions of its normal repertory. The technique clarifies the nature of drives. The organism comprises a bundle of drives which support one another or oppose one another to greater or lesser extent. "Spontaneous" activity is the result of a continual and shifting interplay of forces in the central nervous system.—*L. A. Wauck.*

Electroshock

ELECTROENCEPHALOGRAPHY

2570. Aladzhanova, N. A., & KoItsova, A. V. (Inst. Biophysics, Acad. Science, USSR) Chasovnye kachaniya elektricheskoi aktivnosti v strukturakh golovnoy mozga. [Temporal oscillations of electrical activity in cortical structures.] *Dokl. Akad. Nauk. SSSR*, 1962, 142(1), 241-244.—A description of a periodic arousal of excitation in various brain structures initiated by external stimulation. The cycles of excitation arise with a long latent period after the initial stimulus and develop during the course of several hours. The oscillating process decays in the 1st hour or 2, arises again in the 2nd or 3rd hour and again drops off after 3-4 hours. The excitation consists of super-slow waves with a period of 8-10 secs. and 1-1.5 minutes and is interpreted as being a manifestation of the general regulatory system of the cortex. Stimulation consisted of electric stimulation of 10 μ sec. durations at 4 volts. Typically the latent period for this response is in the terms of minutes. The different stages of the cyclic activity exhibit different electrical frequencies.—*H. Pick.*

2571. Bechtereva, N. P., & Zontov, V. V. (A. L. Polenov Neurosurgical Research Inst., Leningrad) The relationship between certain forms of potentials and the variations in brain excitability (based on EEG, recorded during photic stimuli triggered by rhythmic brain potentials). *EEG clin. Neurophysiol.*, 1962, 14, 320-330.—This study attacks the problem of correlating rhythmical brain waves, alpha, with the state of excitability of the brain. Findings were based upon the analysis of 161 EEG records

recorded from 67 persons with normal basal EEGs. While the results support the relationship of alpha potential phase and variations of excitability, the actual demonstration of this relationship did not agree with published reports. The relationship varied considerably in the same S as well as in different Ss. The results show that the time period of an alpha wave does not possess the exclusive property, attributed to it by some investigators, of being the single discrete unit of the nervous system.—*L. C. Johnson.*

2572. Brazier, Mary A., The analysis of brain waves. *Scient. American*, 1962, 206(6), 142-153.—For analyzing the electrical activity of the brain, the electronic computer has emerged as an instrument of great power and versatility. One of the principal uses of the computer is to extract meaningful signals from the background electrical noise generated by the brain. When the analyses are performed while the S is still connected to the recording apparatus, with the E able to manipulate the experimental variables, the computer becomes a subtle new tool for the studies of neurophysiology.—*L. A. Wauck.*

2573. DeLucchi, M. R., Garoutte, Bill, & Aird, Robert B. (U. California Medical Cent., San Francisco) The scalp as an electroencephalographic averager. *EEG clin. Neurophysiol.*, 1962, 14, 191-196.—The present study examined the relationships between scalp and cortical EEG activity in 29 cats, studying synchrony between the activity from these 2 levels wave by wave. High degrees of bilateral synchrony (72%) were obtained with scalp to scalp recording with lesser degrees with cortical electrodes. In the latter, the degree of synchrony was directly related to the number of electrodes used. Based on these observations, it was hypothesized that the scalp acts as an averager of electrical activity from underlying cortical activity and that 2 types of spontaneous activity were present. One was discrete and intrinsic to local cortical regions and the other was widely synchronized and presumably under the control of a subcortical pacemaker.—*L. C. Johnson.*

2574. Dustman, Robert E., Boswell, Reed S., & Porter, Paul B. (U. Utah) Beta brain waves as an index of alertness. *Science*, 1962, 137(Whole No. 3529), 533-534.—Reaction times of human Ss are reliably shorter when the signal to respond is given during spontaneous low voltage, fast (beta) brain waves than they are when the signal is given during spontaneous alpha waves. The mean difference of 12 milliseconds is, however, trivial in comparison to the advantage to be expected from forewarning.—*Journal abstract.*

2575. Estrin, Thelma (U. California, Los Angeles) A conversion system for neuroelectric data. *EEG clin. Neurophysiol.*, 1962, 14, 414-416.—A data processing system characterized by great versatility in the processing of neuroelectric data is briefly described. Technical specifications and cost are presented.—*Author abstract.*

2576. Golubeva, E. A. (Inst. Psychology, RSFSR Acad. Pedagogical Sciences) Ob $\mathbf{\bar{e}}$ lektroentsefalograficheskom vyrazhenii raboty bol'shikh polusharii golovnoy mozga pri vospriyatii svetovykh kompleksov. [The EEG characteristics of the brain cortex under conditions of perception of complex light stimuli.] *Dokl. Akad. Pedag. Nauk RSFSR*, 1962, No. 1, 105-108.—EEGs of 14 Ss were recorded when Ss were exposed to complex visual stimuli of

flickering light (frequency between 20-30 cycles) and expected to analyze the stimuli under different instructions. The main result was that the left and the right cerebral hemispheres learned the rhythm in different ways depending upon the arrangement of the stimuli in the visual field.—*A. Cuk.*

2577. Gonik, Uri. (U. Houston) Differential amygdala and posterior hypothalamic EEG correlates of conditioning in unrestrained cats. *Dissert. Abstr.*, 1961, 22(6), 2075-2076.—*Abstract.*

2578. Kalinin, P. I., & Sokolova, A. A. (USSR Acad. Sciences, Moscow) *Elektricheskaia aktivnost' retikulinoi formatsii srednego moga krolika v usloviakh sozdaniia v kore bol'shikh polusharii dominantnogo ochaga.* [Electrical activity of the midbrain reticular formation of the rabbit in the presence of a dominant focus in the cerebral cortex.] *Zh. vyssh. nervn. Deiatel.*, 1961, 1(6), 1112-1119.—Electrodes were implanted into different parts of the brain of 6 rabbits (sensorimotor zone, optic zone, and reticular formation). EEG was recorded under conditions of visual and auditory stimulation. It was found that a dominant focus is reinforced by an indifferent stimulus only when this stimulus evokes in the EEG a distinct reaction of activation. A stimulus to which the reaction of activation has been previously extinguished either evokes no movement at all or a weak and unsteady one. It is concluded that the reinforcement of a dominant focus is closely bound up with influence exerted by the RF of the midbrain.—*A. Cuk.*

2579. Kaneko, Ziro; Hidaka, Yasuhiko; Hishikawa, Yasuo; Shimizu, Akira, & Miyazaki, Kiyoshi. (Osaka U. Medical School, Japan) Effect of arousal stimulation upon photic driving in the cat. *Folia psychiat. neurol. Jap.*, 1961, 15(3), 206-217.—Cortical photic driving induced by flicker was studied in unanesthetized cats. Auditory or tactile stimuli (or reticular formation electrical stimulation) inhibited low frequency responses, but facilitated high frequency response. Arousal stimuli often facilitated the second harmonic of the driving response, and caused reappearance of the driving even in deep anesthesia.—*W. A. Wilson, Jr.*

2580. Mirzoiants, N. S. (Inst. Pediatrics, USSR Acad. Medical Sciences, Moscow) *Izmenenie bioelektricheskoi aktivnosti mozga u detei rannego vozrasta v otvet na ritmicheskuu svetovuiu stimulatsiiu.* [Changes of the bioelectrical activity of the brain of infants in response to a rhythmical photic stimulation.] *Zh. vyssh. nervn. Deiatel.*, 1961, 11(6), 1005-1011.—This longitudinal study was done on 40 normal children from 14 to 350 days. Their EEG was taken while they were awake and exposed to a rhythmical flash of light. 3 characteristic changes in the EEG were observed: (a) a rapid establishment of rhythm, (b) a gradual forming of rhythm, and (c) arrhythmic changes in the curve of the EEG. The last phenomenon is the most typical.—*A. Cuk.*

2581. Mulholland, Thomas, & Runnals, Sylvia. (VA Hosp., Bedford, Mass.) A stimulus-brain feedback system for evaluation of alertness. *J. Psychol.*, 1962, 54(1), 69-83.—A bio-electronic feedback loop for evaluating brain alertness and the effects of "attention" produced a contingency between the occurrence of the electroencephalographic "alpha" rhythm and the occurrence of a stimulus. The behavior of the system permitted a sensitive index of

"habituation," internal attention states, and permitted a specification of degree of alerting. An interpretation of system behavior is offered with technical details and further applications described.—*Author abstract.*

2582. Pendleton, Ralph Brian. (U. Utah) Latency of cortical and subcortical conditioned responses in the cat as a function of dominant cortical frequency. *Dissert. Abstr.*, 1961, 22(5), 1726.—*Abstract.*

2583. Perez-Borja, Carlos; Chatrian, Gian Emilio; Tyce, Francis A., & Rivers, Morris H. (Rochester State Hosp., Minn.) Electrographic patterns of the occipital lobe in man: A topographic study based on use of implanted electrodes. *EEG clin. Neurophysiol.*, 1962, 14, 171-182.—To determine the topographic distribution of electrographic patterns recorded from deep in the occipital lobe, 31 implanted leads with 167 electrodes were implanted in 26 patients. Occipital patterns were found to form 2 groups: 1, a widely distributed group extending beyond occipital lobe to parietal and temporal areas and 2, a group recorded from discrete areas of the occipital lobe in or near the calcarine region. The former group includes the alpha and fast activity, the latter the slow on and off response and fast discharge to single and repetitive flashes of light.—*L. C. Johnson.*

2584. Sheveleva, V. S. (Inst. Evolutionary Physiology I. M. Sechenov, Acad. Science, USSR) *Razvitie "spontannoi" bioelektricheskoi aktivnosti rablichnykh otdelov nervnoi sistem y v ontogeneze.* [Development of "spontaneous" bioelectrical activity of various parts of the nervous system in ontogenesis.] *Dokl. Akad. Nauk SSSR*, 1962, 142(1), 249-252.—Rabbits were used to investigate the occurrence and development of electrical activity in the thalamus, hypothalamus, cerebellum, and sympathetic ganglia. Experiments were carried out on non-anesthetized animals from the 1st day of birth to the 2nd or 3rd year. Results obtained from platinum electrode recordings from the various areas indicate that there is bioelectric activity in all areas from the 1st day of life. For the 1st 3 or 4 days the activity is about the same in all the areas—high in frequency (up to 100 cps) but small in amplitude (1-15 uv.). After this differential activity starts, first in the cerebellum where the amplitude increases to 25-30 uv. The differential activity is described as it occurs in the various parts of the nervous system. It is noted that in the first days of postnatal life, periodic bursts of activity in the sympathetic system are followed by peaks of excitation all through the central nervous system.—*H. Pick.*

2585. Sickel, W. *Über das menschliche Elektroenzephalogramm nach mehrstündiger psychischer Aktivität.* [Human encephalograms after prolonged mental activity.] *Arch. ges. Psychol.*, 1962, 114(1), 1-54.—Comparisons are reported of alterations in encephalograms after 6 hours of predominately mental activity and after 6 hours of predominately physical activity for 90 Ss. Mental activity was followed by heavier alterations in the encephalograms. Effects of diurnal cycles and individual differences are discussed.—*K. J. Hartman.*

2586. Steiner, William G. (U. Illinois) Electrical activity of rat brain as a correlate of primary drive. *EEG clin. Neurophysiol.*, 1962, 14, 233-243.—The aims of the present study were to demonstrate in

33 male albino rats that changes in CNS electrical activity occur as a consequence of a strong appetitive drive (thirst), to attempt a crude specification of their locus, and to ascertain whether these EEG changes are in the predicted direction of asynchrony. While there were the predicted changes in the electrical activity accompanying changes in the drive level, the EEG changes which accompanied a given condition were found to be dependent upon the brain placement under consideration and the particular frequency being recorded.—*L. C. Johnson.*

2587. Thompson, Larry W. (Florida State U.) Investigation of changes in electrocortical activity during verbal learning. *Dissert. Abstr.*, 1961, 22 (4), 1244.—*Abstract.*

2588. Villablanca, Jaime. (U. Chile) Electroencephalogram in the permanently isolated fore-brain of the cat. *Science*, 1962, 138 (Whole No. 3536), 44-45.—The cerebral cortex of cats with chronic or permanent mesencephalic transections of the brain stem showed both high-voltage, slow-wave synchronized electroencephalographic patterns and low-voltage, fast-wave desynchronized rhythms when studied postoperatively. The alternation of sleep and wakefulness electrical activity in the permanently isolated forebrain is contrasted with the observations of Bremer in the acute "cerveau isole" preparation.—*Journal abstract.*

EVOKED POTENTIALS

2589. Jane, John A., Smirnov, George D., & Jasper, Herbert H. (McGill U., Montreal) Effects of distraction upon simultaneous auditory and visual evoked potentials. *EEG clin. Neurophysiol.*, 1962, 14, 344-358.—To study the effect of changes in alertness, distraction, and direction of attention upon electrical evoked potentials recorded from specific sensory pathways of the brain, bipolar recording electrodes were implanted subdurally in 5 cats. The electrodes were over the primary visual and auditory cortical areas. A stroboscopic flash was used for light stimulus and a click for auditory stimulus. Stimuli for visual distraction was a rat and for auditory distraction a tape recording of squeaking noise of a rat was used. Effects of distraction are of a very complex nature, depending on the past experience of the animal, its immediate state of alertness, and reaction to distracting stimuli. Evoked potentials to simultaneous visual and auditory test stimuli are highly variable in the unanesthetized cat at rest, and marked changes occur at both geniculate and cortical levels during distraction.—*L. C. Johnson.*

2590. Karimova, M. M. (Chair of Higher Nervous Activity, Moscow State U., USSR) Izbiratel'nost' ugasheniia orientirovochnogo refleksa na zvukovye razdrzhiteli u sobak pri estestvennom i nembutalovom sne. [Selectivity of the extinction of the orienting reflex to acoustic stimuli in natural and nembutal sleep.] *Zh. vyssh. nervn. Deiatel.*, 1961, 1(6), 1065-1073.—Electrodes were implanted into different parts of the brain (optic and motor zones, brain stem, reticular formation) of 3 dogs. The orienting reflex was measured by the movement of the external ear and by respiration. EEG was also recorded. It was found that the ascending activating reticular system does not play any essential role in the selective extinction of the orienting reflex. The "nervous model of the stimulus" is formed in the cor-

tical structures with the participation of the specific conducting pathways.—*A. Cuk.*

2591. Marsh, James T., Worden, F. G., & Hicks, L. (U. California, Los Angeles) Some effects of room acoustics on evoked auditory potentials. *Science*, 1962, 137 (Whole No. 3526), 280-282.—Auditory potentials were recorded from bipolar electrodes chronically implanted in the cochlear nuclei of 4 cats. In a training box modified to reduce echoes these animals were exposed to clicks and tone pulses presented from an overhead speaker. Slight changes in the position of the animal in the resulting sound field produced marked changes in the potentials evoked from the cochlear nucleus. These phenomena were observed in the unanesthetized, unrestrained Ss as well as in those under Nembutal anesthesia. It is suggested that these acoustic effects complicate the analysis and interpretation of potentials evoked from the cochlear nucleus under conditions of habituation, shifts in attention, and learning.—*Journal abstract.*

SENSORY PHYSIOLOGY

2592. Biersdorf, William R., & Armington, John C. (Walter Reed Army Inst. Research) The effects of chromatic pre-exposure upon dark adaptation of the human electroretinogram. *J. comp. physiol. Psychol.*, 1962, 55(2), 161-167.—Spectral sensitivity of the ERG was studied during the first 2 min. of dark adaptation after pre-exposure to colors of high luminance. The sensitivity increased more rapidly to 500 mμ than to test flashes from other parts of the spectrum. The positive wave of the ERG was analyzed into 2 peaks, neither of which represented solely photopic or scotopic activity; a 3rd (principally photopic) component is suggested by the data.—*W. A. Wilson, Jr.*

2593. Francois, J., & De Rouck, A. Étude électro-retinographique de l'oeil humain enuclée. [Electro-retinographic study of the enucleated human eye.] *Ophthalmologica*, 1962, 144(2), 126-140.—"After enucleation of the eyeball, three stages can be distinguished in the evolution of the E.R.G. The first stage, which has a maximal duration of 6 minutes, is characterized by the presence of the following components: a wave, b wave, c wave, slow negative deflection and d wave or off-effect. . . . The second stage is characterized by the disappearance of the b and c waves. . . . The third stage is characterized by the slow negative deflection, which remains the last component of the E.R.G. and may persist over an hour."—*C. T. Morgan.*

2594. Mazokhin-Porshniakov, G. A. (Inst. Biological Physics, Moscow, USSR) O vzaimodeistvii raznykh priemnikov glaza v tsvetovom zrenii sverchka. [On the interaction of different receptors in color vision in the cricket.] *Biofizika*, 1962, 7(4), 442-448.—The cricket has color vision, mediated through only 2 receptors with different spectral sensitivities. The sensitivity-curve of the short-waved receptor (maximum about 510 mμ) is close to the absorption-curve of rhodopsin, while that of the 2nd (maximum between 560 and 570 mμ) is close to the absorption-curve of iodopsin. Interaction between the receptors is characterized by "partial mutual substitutability of the receptors." It consists of the "preservation of color equality for the eyes by compensation of insufficiency of excitation of one receptor

with heightened excitation of the other."—*I. D. London.*

2595. Peake, W. T., Goldstein, M. W., Jr., & Kiang, N. Y. S. (Massachusetts Inst. Technology) Responses of the auditory nerve to repetitive acoustic stimuli. *J. Acoust. Soc. Amer.*, 1962, 34 (5), 562-570.—"Auditory nerve responses to short bursts of acoustic noise have been recorded by gross electrodes. For moderate stimulus intensities the amplitude of the response is independent of burst repetition rate for rates below approximately 10/sec. The curve of response amplitude vs. rate then decreases except for a small "bump" in the curve near 600/sec. Synchronized responses were detected for repetition rates as high as 3000/sec by an average response computer. These data have been considered in terms of a model that accounts for the overlapping of the response waveforms. In terms of this model, the neural activity decreases monotonically with increasing rate above the rate 10/sec."—*A. M. Small, Jr.*

2596. Peake, W. T., Kiang, N. Y. S., & Goldstein, M. H., Jr. (Massachusetts Inst. Technology) Rate functions for auditory nerve responses to bursts of noise: Effect of changes in stimulus parameters. *J. Acoust. Soc. Amer.*, 1962, 34(5), 571-575.—"Rate functions for the amplitude of neural responses are presented as a function of stimulus parameters, such as burst length, intensity, and stimulus power level. The data show that the rate functions depend on all of these parameters in a manner that does not allow for a simple description. Rate functions are also reported for noise bursts in the presence of various levels of steady masking noise. Near visual detection level these rate functions exhibit characteristics that are well accounted for by a model that deals with the overlapping of successive neural responses."—*A. M. Small, Jr.*

2597. Tournay, Auguste. Le domaine du système proprioceptif avec, avant et après Sherrington. [The proprioceptive system before and since Sherrington.] *J. Psychol. norm. pathol.*, 1961, 58(2), 129-155.—A systematic consideration of the anatomical, physiological, clinical, and developmental aspects of proprioception. Sherrington's work is analyzed in detail, and in its historical setting. The author briefly discusses his own studies.—*M. L. Simmel.*

2598. Usov, V. V. (Polenov Research Neurosurgical Inst., Leningrad, USSR) Optimizatsiia kanala peredachi informatsii v protsesse adaptatsii zritel'nogo analizatora. [Optimization of the channel of information transmission in the process of adaptation of the visual analyzer.] *Biofizika*, 1962, 7(3), 328-332.—In the process of dark adaptation channel-optimization may be viewed as proceeding through the establishment of a quantum threshold corresponding to the most favorable conditions for receiving information. In the general case, that threshold is optimal which ensures the greatest difference in the probabilities for activating a receptor in the presence of its signal and in its absence.—*I. D. London.*

2599. Val'tsev, V. B. (Inst. Higher Nervous Activity & Neurophysiology, Moscow, USSR) Bioelektricheskaya aktivnost' setchatki izolirovannogo glaza liagushki v usloviakh odnovremennoi stimulatsii nepreryvnym i ritmicheskim svetom. [Bioelectric activeness of the retina of the isolated eye in the frog under conditions of simultaneous stimulation with continuous and rhythmic light.] *Biofizika*, 1962,

7(4), 433-441.—Data are presented indicating the "quantitative laws of retinal activity" resulting from simultaneous stimulation with continuous and rhythmic light.—*I. D. London.*

2600. Vyzov, A. L., Orlov, O. Iu., & Utina, I. A. (Inst. Biological Physics, Moscow, USSR) Issledovanie po adaptatsii na glaze golovonogikh molliuskov. [Studies on adaptation in the eye of cephalopods.] *Biofizika*, 1962, 7(3), 318-327.—The authors present the results of studies on adaptation in the eye of the flying squid (*Ammastrophes sloani-pacificus*) and the octopus (*Octopus dofleini*). The data obtained permit some "concretization of the concept of 'nervous' adaptation," proposed by R. J. Lythgoe (see 14: 2381)—a concept in which nervous adaptation is viewed as "restructuring of the receptor fields, leading to modification of the processes of spatial summation."—*I. D. London.*

ENDOCRINE, BIOCHEMICAL, & CIRCULATORY EFFECTS

2601. Alvarez-Buylla, R., & Carrasco-Zanini, J. (Inst. Nacional Neumologia, "Gea Gonzalez," Tlalpan, Mexico) A conditioned reflex which produces the hypoglycemic effect of insulin. *Acta physiol. Latinoamer.*, Buenos Aires, 1960, 10(3), 153-158.—In the dog, after pairing an auditory stimulus with the hypoglycemic state due to insulin injections for 8 days, when the CS is presented alone on Day 9 a hypoglycemic response appears. Upon repeated presentations of CS alone, the response progressively decreases. "Similar conditioned hypoglycemias have been obtained in alloxan diabetic and in totally depancreatized dogs." It is believed a nerve reflex is involved in this action of insulin.—*E. Y. Beeman.*

2602. Denisenko, P. P. (Inst. Experimental Medicine) Vlijanie centralornorih holinolitikov na orientirovoenuju reakciju u ladoratornorih zivotnorih. [Effects of central cholinolytic agents on the orienting reaction in laboratory animals.] *Farmakol. Toksikol.*, 1962, 25(4), 395-401.

2603. Essman, Walter B. (Albert Einstein Coll. Medicine) Effects of an experimentally induced acute renal failure on a learned maze response in rats. *J. gen. Psychol.*, 1962, 67, 51-56.—In considering some of the relationships between physiological deficit and measurable behavior, an experimentally produced acute kidney failure was chemically effected in 8 Ss trained in a T maze. Response latencies and error scores were elevated as compared with 8 control Ss trained to the same criterion; this closely paralleled the physiological changes measured. After clinical recovery 2 weeks later, all Ss learned a similar maze response. It took longer for the experimental group to reach a successful response criterion. The data support the hypothesis that behavioral indices are measures which may be predictive of a physiological insult, such as acute renal failure.—*Author abstract.*

2604. Essman, Walter B. (Albert Einstein Coll. Medicine) The retroactive effect of an acute physiological stress on learning. *J. gen. Psychol.*, 1962, 67, 57-60.—In testing the hypothesis that a stress situation in the form of an interruption of the functional status of an organ system may have a retroactive effect upon behavior, a group of experimentally naive rats were subjected to chemically induced acute kidney failure. A matched control group

received chemically inert control treatment. 2 weeks following complete recovery from the physiological stress all Ss were trained and tested in a T maze. The greater response latencies and error frequencies of the experimental group indicated a retrograde decrement.—*Author abstract.*

2605. Essman, Walter B., & Sudak, Frederick N. (Albert Einstein Coll. Medicine) Sustained and temporary hypothermia as variables in successful maze learning. *Psychol. Rep.*, 1962, 10(2), 551-557.—In Experiment I, sustained hypothermia in mice ($N = 166$) was shown to impair escape learning in a 20° C water maze. Body temperature, ranging from 36° C to 38.9° C, was controlled by injection with saline or a thermolytic drug and by maintaining in a 33° C or 2.5° C environment before maze trials. In Experiment II, 42 mice, maintained at normal temperatures, were run with water-maze temperatures of 3° C, 13° C, 20° C, or 34° C. Groups did not differ in over-all performance level; all except the 34° C group showed significant improvement. "The suggestion that moderate sustained hypothermia interferes with the consolidation of experience . . . was considered. Implications of the present findings as far as hypothermia, motivational properties of water-escape, and temperature reduction in relation to other independent variables are discussed."—B. J. House.

2606. Gendlin, E. T., & Berlin, J. I. (U. Wisconsin) Galvanic skin response correlates of different modes of experiencing. *J. clin. Psychol.*, 1961, 17(1), 73-77.—In an attempt to produce in the laboratory a phenomenon observed in psychotherapy and theoretically formulated as "continuous reference to experiencing," 17 male and female college undergraduates previously not known to the E were given 7 tape recorded instructions, followed by a 2½-minute experimental period. The number of GSRs and resistance rise were measured and evaluated via analysis of variance. "Following the laboratory instructions for silent continuous reference to experiencing significantly fewer GSRs and greater resistance increase occurred, than during experimental periods that involved speech, or silent external or self-interrupted attention."—V. J. Bieliauskas.

2607. Greenberg, Michael, J., & Windsor, Donald A. (U. Illinois) Action of acetylcholine on bivalve hearts. *Science*, 1962, 137(Whole No. 3529), 534-535.—The isolated hearts of a comprehensive selection of bivalves were tested to determine the distribution of the excitator and depressor effects of acetylcholine. No broad relationships are obvious although some intrafamily uniformity of response exists. The hearts of most species were both excited and depressed, probably by separate actions of acetylcholine. From these data we can conclude that bivalve heart muscle conforms closely to other molluscan muscle in its pharmacological reactions to acetylcholine.—*Journal abstract.*

2608. Heller, J. (Charles U., Prague) The mechanism of conditioned reflex oliguria. [The influence of the nervous system on renal function.] *Physiol. Bohemoslov.*, 1962, 11(3), 186-191.—"Conditioned reflex oliguria was elaborated in response to nociceptive stimulation of the skin in dogs. It was not elaborated in adrenalectomized dogs with a functional block of the neurohypophysis and denervated kidney. Conditioned reflex oliguria can be induced in dogs in at least 3 ways: (a) by conditioned reflex

release of the antidiuretic hormone, (b) by conditioned renal vasoconstriction in response to a direct nervous stimulus, (c) by conditioned reflex release of adrenal hormone (or hormones) (probably adrenaline)."—C. T. Morgan.

2609. Heller, J. (Charles U., Prague) The significance of the adrenals and neurohypophysis in the mechanism of conditioned polyuria in the dog. *Physiol. Bohemoslov.*, 1962, 11(2), 113-118.—In 6 adrenalectomized dogs with ureteral fistulae and a denervated left kidney, it was found that conditioned water, osmotic and mercury diuresis were the same as in the controls. In 10 dogs it was found that no antidiuretic activity was present in the plasma (using a method sensitive to 1 microunit) in conditioned water and mercury diuresis. In conditioned osmotic diuresis, the antidiuretic activity of 1 ml. plasma ranged from 1.5 to 9.2 microunits. Since the composition and volume of the urine in conditioned water, osmotic and mercury diuresis were always the same, while the antidiuretic activity of the plasma varied, it seems that the neurohypophysis does not play an important role in the mechanism of different types of conditioned polyuria. It is assumed that conditioned polyuria is caused either by an unknown substance with a diuretic effect, or by an isolated increase in the blood flow in the kidney medulla.—*Author abstract.*

2610. Johnson, Walter H., Meek, Joseph C., & Graybiel, Ashton. The effects of unilateral and bilateral labyrinthectomy on canal sickness in the squirrel monkey. *USN Sch. Aviat. Med. NASA Jt. res. Rep.*, 1961, Proj. MR005.13-6001, Subtask 1, Rep. No. 65; NASA Order No. R-37. 10 p.—6 squirrel monkeys which readily developed canal sickness when exposed to slow rotation were divided into 2 groups and subjected either to a unilateral left labyrinthectomy or a bilateral labyrinthectomy. Following surgery both groups of animals demonstrated vestibular dysfunction in unsteadiness of gait and absence of response to caloric testing of the operated ears. After bilateral labyrinthectomy, all 3 monkeys developed a complete insensitivity to canal sickness. A similar lack of symptoms was seen initially in the monkeys subjected to unilateral labyrinthectomy; however, this behavior proved to be temporary, and by 6 months the animals had nearly returned to the presurgical level of sensitivity to canal sickness.—*USN SAM & NASA.*

2611. Khristosov, KH. (Dept. Psychiatry, Higher Medical Inst., Sophia) Popýtká fiziologicheskogo izucheniya estradnogo volneniya. [An attempt at a physiological study of stage fright.] *Vop. Psikh.*, 1962, No. 1, 143-147.—68 music students were Ss in this study which attempted to relate changes of pulse rate and blood pressure at the time of musical performances to experienced stage fright and type of nervous system. All Ss showed an increased pulse and blood pressure before going on stage. After the performance some Ss (13) showed further increase of blood pressure. Some (28) showed a decrease of blood pressure, and 8 showed no change. Pulse rate had increased after performance for 25 Ss, had decreased in 17, and showed no change in 1. The degree of stage fright appeared to depend on the significance of the performance (e.g., less fright was manifest when performing in front of one's own school mates), and on the experience of the performer, and on the type of nervous system of the

performer. Strong nervous system types displayed higher indices of stage fright than weak and average types.—*H. Pick.*

2612. Kiossoglou, K. A., & Walker, Adelyn. (Children's Hosp., Philadelphia, Pa.) The use of peripheral blood leukocyte concentrates for sex determination. *Amer. J. ment. Defic.*, 1962, 67(1), 78-81.—A description is presented of a satisfactory method for study of sex chromatin pattern in polymorphonuclear neutrophils by means of enriched smears of peripheral capillary blood. The incidence of sex chromatin is the same as with concentrates prepared from venous blood.—*V. S. Sexton.*

2613. Levine, Seymour, & Soliday, Stanley. (Stanford U.) An effect of adrenal demedullation on the acquisition of a conditioned avoidance response. *J. comp. physiol. Psychol.*, 1962, 55(2), 214-216.—"Adrenal demedullated and non-operated control rats were given avoidance training in a shuttle box in each of 2 experiments. There were no over-all significant differences between the groups in the first experiment. A second experiment was run in which the same response was learned but with much more efficient training procedures. The demedullates in the second experiment made significantly fewer conditioned avoidance responses than did their controls."—*W. A. Wilson, Jr.*

2614. Lykken, David T. (U. Minnesota) Preception in the rat: Autonomic response to shock as function of length of warning interval. *Science*, 1962, 137(Whole No. 3531), 665-666.—The autonomic response (galvanic skin response) to a noxious stimulus (shock) is reduced when the stimulus is preceded by a warning signal. The greatest reduction, 53%, was obtained with a warning interval of 1 second. Warning also reduces variance of the response over trials, a decrease of over 90% for the optimum 1-second interval.—*Journal abstract.*

2615. Miller, Robert E., & Ogawa, Nobuya. (U. Pittsburgh) The effect of adrenocorticotrophic hormone (ACTH) on avoidance conditioning in the adrenalectomized rat. *J. comp. physiol. Psychol.*, 1962, 55(2), 211-213.—"Adrenalectomized rats were treated either with ACTH or placebo during avoidance learning. It was found that the animals receiving the hormone were significantly slower to extinguish the conditioned avoidance response than were animals which received the placebo. The results support the hypothesis that ACTH has important extra-adrenal effects on behavior."—*W. A. Wilson, Jr.*

2616. Nikolov, N. A. (Pavlov Higher Medical Inst., Bulgaria) Vorissiaja nervnaja dejatel'nost' sodak so sladorium tipom nervnoj sistemori pri prodolzitel'nom vnutrivennom vvedenii gidrokortizona. [The higher nervous activity in dogs with asthenic type of nervous system following prolonged intravenous injections of hydrocortisone.] *Farmakol. Toksikol.*, 1962, 25(1), 3-8.

2617. Rashkis, H. A., & Rashkis, S. R. (Eastern Pennsylvania Psychiatric Inst.) Note on determinants of individual tempo. *Percept. mot. Skills*, 1962, 14(3), 406.—To support a "chemical clock" hypothesis for tempo preference, positive correlations were expected with body temperature and barometric pressure, but no significant correlations with atmospheric temperature or relative humidity, since humans are homoiothermic animals. No hypothesis

for time of day was offered. 7 of 8 relevant correlations supported the "chemical clock" hypothesis, but the hypothesis accounted for a little less than half the variance of tempo preference as measured. This might be increased by adding other measures associated with metabolism.—*W. H. Guertin.*

2618. Sidman, Murray; Mason, John W., Brady, Joseph V., & Tach, John, Jr. (Walter Reed Army Inst. Research) Quantitative relations between avoidance behavior and pituitary-adrenal cortical activity. *J. exp. Anal. Behav.*, 1962, 5(3), 353-362.—"The rate at which monkeys pressed a lever and avoided shocks was manipulated in several ways. Measurements were also made of their plasma levels of 17-hydroxycorticosteroids. The rate at which the animals pressed the lever and the frequency with which they received shocks were both implicated as determiners of the steroid levels."—*J. Arbit.*

2619. Siegel, H. S., & Siegel, P. B. (Virginia Polytechnic Inst., Blacksburg) The relationship of social competition with endocrine weights and activity in male chickens. *Anim. Behav.*, 1961, 9(3-4), 151-158.—The relative aggressiveness determined in 28 birds from 8 paired encounters ranged from 0 to 100% wins. No correlation of this score with weight of endocrines per unit body weight was significant. A total of 32 birds who were placed as a minority in pens of strangers had significantly heavier adrenals than those birds remaining in their own flocks. Birds kept in individual cages showed lighter adrenals than those continuously living in groups. Thyroid, pituitary, spleen, and testes weights, and adrenal cholesterol level were not affected.—*W. J. Coppock.*

2620. Tapp, Jack Thomas. (U. Illinois) Reversible cortical depression and avoidance behavior in the rat. *Dissert. Abstr.*, 1961, 22(5), 1727-1728.—*Abstract.*

2621. Thiessen, D. D., Zolman, James F., & Rodgers, David A. (U. California, Berkeley) Relation between adrenal weight, brain cholinesterase activity, and hole-in-wall behavior of mice under different living conditions. *J. comp. physiol. Psychol.*, 1962, 55(2), 186-190.—Mice were housed either individually or in groups for 4 weeks with different amounts of environmental stimulation. Group-housed extra-stimulation animals showed the shortest running time on a hole-in-the-wall test, and the highest adrenal weight and subcortical cholinesterase activity. Adrenal weight, and cortical and subcortical activity, all correlated with the behavioral measure under most experimental conditions.—*W. A. Wilson, Jr.*

PSYCHOPHARMACOLOGY

2622. ———. *Acta neurol. psychiat. Belg.* 1961, 61(8), 669-788.—The whole issue has been devoted to a series of 21 articles reporting on the uses of dixyrazine (Esucos) dichlorhydrate 10-/2-methyl-3-(1-hydroxy-ethoxyethyl-4-piperazinyl) propyl/phenothiazine. The general trend of the findings is that the drug possesses a slight effect on the psychoses, particularly as a sedative. Favorable results have been obtained with neurotic conditions and certain types of depression. In relapses after interruption of the therapy, the action of the drug is considered slightly less favorable than some of the other drugs. Except for drowsiness with large doses, there are no

untoward side effects. The authors of these articles are: V. Bienfet, S. Levis, J. Dauby, and L. Beelen; J. Paquay, F. Arnould, P. Burton, M. Tinant, and E. Mottet; A. Benrubi; F. Lens; G. Noel and M. Scalais; Fouks; A. Segers and J. Nuyts; T. Bonaretto; J. Sévery; A. Wauters; R. Verspreuwen; L. Humbeek; W. Ballet; Rubbens; R. Kaivers; P. Jonas; F. De Loose; Hacquaert; A. Delmotte; and P. Goffart. (English summaries)—*V. Sanua*.

2623. Arora, R. B., Singh, M., & Kanta, Chandra. Tranquilizing activity of jatamansone: A sesquiterpene from *nardoostachys jatamansi*. *Life Sci.*, 1962, No. 6, 225-228.—"Four aggressive and hostile Rhesus monkeys between 2-4 kg were given jatamansone 100 mg/kg i.p. Five different patterns for scoring the behaviour of monkeys were studied. There was 75 per cent reduction in excitement, defensive and aggressive hostility; while sociability and contentment showed an increase of 80 per cent."—*C. T. Morgan*.

2624. Barry, Herbert, III, & Miller, Neal E. (U. Connecticut) Effects of drugs on approach-avoidance conflict tested repeatedly by means of a "telescope alley." *J. comp. physiol. Psychol.*, 1962, 55(2), 201-210.—Rats were run in an alley for food or water reward under various conditions of deprivation; changes in the length of the alley were associated with changes in the intensity of a shock delivered at the goal. Alcohol and amobarbital sodium decreased strength of approach but decreased avoidance even more; chlorpromazine, morphine, and stimulants decreased speed of approach on all trials without clearly reducing the strength of avoidance per se.—*W. A. Wilson, Jr.*

2625. Bindra, Dalbir, & Mendelson, Joseph. (McGill U., Canada) Interaction of habit strength and drug effects. *J. comp. physiol. Psychol.*, 1962, 55(2), 217-219.—Rats were trained to bar-press for water and were injected with chlorpromazine before some of the experimental sessions. Animals that were responding more before the drug continued to respond more under the drug, but the decrement in performance produced by the drug was greater the higher the previous performance. "It would appear that the negative interaction effects result from a fundamental feature of behavior relevant to all performance situations."—*W. A. Wilson, Jr.*

2626. Bujas, Z., Vidaček, S., & Vodanović, Mirjana. (Inst. za Medicinska Istraživanja, Zagreb) Djelovanje nekih farmakoloških sredstava na radni učinak kod tjelesnih radova koji se ponavljaju. [Effect of some drugs on work output in repetitive physical effort.] *Arh. Hig. rada*, 1960, 11, 261-287.—In the course of the last 5 years the authors have studied the effect of various drugs on physical work by using the method of repetitive physical effort both of a static (hanging on one's arms) and dynamic (treadmill) kind. The drugs used were: phenamine, ritoline, preludin, and veronal. It was found that: (a) The use of stimulants in the state of physical freshness and good motivation has hardly any positive effect. (b) The stimulants do not seem to be successful in submaximum efforts, even if such efforts produce a certain degree of fatigue. A certain positive effect of pharmacological stimulants appears to exist only in the final phase of maximum physical efforts. (c) The stimulants do not seem to slow down the process of restitution.

(d) Under the effect of stimulants, the Ss feel less tired. The differences in the feeling of pain suggest that the effect of stimulants is primarily central.—*B. Pets*.

2627. Caldwell, Lee S., & Evans, Wayne O. The effect of an analgesic agent on muscular work decrement. *USA Med. Res. Lab. Rep.*, 1962, No. 538. ii, 4 p.—Previous work has shown that a correlation exists between both the degree of ischemia and the intensity of pain with the strength of contraction in a tonically contracted muscle. Also, it has been demonstrated that the degree of muscle ischemia is related to the intensity of induced pain. These observations might lead to the conclusion that the pain caused by ischemia limits the endurance of the muscle contraction. An analgesic agent known to reduce ischemic pain was shown to have no effect on the endurance of a tonic muscle contraction. This was interpreted as demonstrating a lack of causality in the relationship between pain due to ischemia and muscular work decrement.—*USA MRL*.

2628. Carlton, Peter L. (Squibb Inst. Medical Research) Some behavioral effects of atropine and methyl atropine. *Psychol. Rep.*, 1962, 10(2), 579-589.—"Atropine (2.5-20.0 mg/kg), intraperitoneally administered to rats working in an operant shock-avoidance situation, increased shock-frequency and responding on a second, irrelevant lever in the response chamber without consistently altering the rate of avoidance responding. Equimolar doses of methyl atropine failed to produce the typical effects of atropine; this finding was taken as indicating that the observed effects of atropine were due to a block of the actions of acetylcholine in the central, rather than peripheral, nervous system. The results of a control experiment in which extra shocks, independent of avoidance responding, were given suggested that only a fraction of the increase in irrelevant responding following atropine was mediated by the concomitant increase in shock-frequency. The possibility of a central cholinergic system mediating the normal effects of non-reinforcement is discussed in relation to these and other data."—*B. J. House*.

2629.—Dureman, Ingmar. (Uppsala U., Sweden) Psych-Physiological methods applied to studies of effect of psychotropic drugs in man. *Rev. Psychol. appl.*, 1961, 11, 403-415.—The bulk of research on drug action affecting sensory processes has been concentrated on pain mechanisms, but there has been work on absolute visual thresholds, flicker fusion, visual movement after-effects, apparent movement thresholds, visual after-images, auditory thresholds, and time perception. Results are also cited as to the effects of the psychotropic drugs on both unconditioned and conditioned autonomic reactivity. It is highly desirable that the recent interest in practical application of such measurement techniques should also result in intensified basic research aimed toward better understanding of the principles of autonomic regulation. (53 ref.)—*W. W. Wattenberg*.

2630. Frommel, E., & Fleury, C. (Faculté de Médecine, Genève) De l'influence de l'amphétamine et de la cocaïne sur l'électrocrise expérimentale [The influence of amphetamine and cocaine on experimental electric seizures.] *Encephale*, 1961, 50(5), 512-515.—Results indicate that amphetamine and cocaine have opposing actions in the tonic phase of electroshock. In guinea pigs, amphetamine does

not modify the comatose phase. 2 mechanisms are proposed: (a) discharge of cerebral potentials under the influence of psychomotor agitation from amphetamine diminishes the grand mal seizures; (b) the sympathicotonic action of amphetamine neutralizes the vagotonia of the first phase of the seizure, thus modifying the symptoms. (18 ref.)—*W. W. Meissner.*

2631. Heimstra, N. W. (U. South Dakota). **Effects of amphetamine sulfate (Benzedrine) on the behavior of paired rats in a competitive situation.** *Psychol. Rec.*, 1962, 12, 25-34.—Doses of .5 mg/kg were given to submissive members (Group II) to dominant members (Group III), to both (Group IV) or to neither member (Group I). Pairs were determined by weight. 1. Social behavior increased significantly in Group IV during the drug trials. 2. Animals in Group II showed a marked, though not significant, decrease in fighting during the drug stage. 3. Administration of amphetamine sulfate had no significant effect on general activity or on food control. General activity showed a progressive decline during the trials while time spent in control of the food increased.—*R. J. Seidel.*

2632. Ivanova, V. I. (Moscow State U., USSR) **K mekhanizmu deistviia aminazina na pishchevye dvigatel'nye uslovnye refleksi ryb, golubei i krol'kov.** [Mechanism of the action of chlorpromazine on alimentary motor CR of fishes, pigeons and rabbits.] *Zh. vyssh. nervn. Deiatel.*, 1961, 11(6), 1120-1126.—Ss were 4 rabbits, 3 pigeons and 9 fish. In all Ss the administration of chlorpromazine resulted in a decline of the motor activity and suppression of the CR. The degrees of change depend upon the dose of the drug, type of animal, and individual peculiarities.—*A. Cuk.*

2633. Jacobsen, Erik. (A/S Meco-Dumex, Copenhagen, Denmark) **The clinical effect of drugs and their influence on animal behaviour.** *Rev. Psychol. appl.*, 1961, 11, 421-432.—Rational testing of the clinical effect of psychotropic drugs is impossible because mental disorders cannot be experimentally induced like infectious or metabolic diseases. However, studies can be made of behavior which may be interpreted as due to emotions which play a role in certain mental diseases. Studies of the effects of drugs on conditioned avoidance reactions indicate specific inhibition by all major tranquilizers. Some drugs appear to have a "taming" effect on animals; these also show a clinical effect on some acute anxiety states. Many psychotropic drugs have an ability to normalize conflict-induced behavior in animals. In all mental processes we presumably have at least 3 links: a provoking mechanism, a releasing mechanism, and an executive mechanism. This purely hypothetical construction may explain why it is possible to influence a psycho-neurosis with drugs having widely different effects in animal psychological experimentation. (35 ref.)—*W. W. Wattenberg.*

2634. Lader, M. H., & Montagu, J. D. (University Coll., London, England) **The psycho-galvanic reflex: A pharmacological study of the peripheral mechanism.** *J. Neurol. Neurosurg. Psychiat.*, 1962, 25(2), 126-133.—"Two series of experiments are reported in which the skin resistance and the pulse volume were simultaneously recorded from the same finger. In one series atropine was introduced into the finger by iontophoresis and the effects on psycho-

galvanic reflex and on vasoconstriction were studied. In the second series bretylium was introduced in a similar fashion in order to paralyze adrenergic nerve endings. Iontophoresis with saline was used as a control procedure. Atropine was found to abolish the psycho-galvanic reflex without affecting vasomotor activity. Bretylium abolished vasomotor activity without affecting the psycho-galvanic reflex. The results confirm the theory that the psychogalvanic reflex is solely dependent on pre-secretory activity in sweat glands."—*M. L. Simmel.*

2635. Laties, Victor G., & Weiss, Bernard. (Johns Hopkins U.) **Effects of alcohol on timing behavior.** *J. comp. physiol. Psychol.*, 1962, 55(1), 85-91.—Ethyl alcohol (.5 or 1.0 gm/kg) has generally little effect on the accuracy of timing behavior (a DRL schedule) in humans or in rats. With the larger dose some decreases in total responses were produced in both species, due primarily to an increase in the number of long pauses, but modal inter-response time was not changed.—*W. A. Wilson, Jr.*

2636. Lawton, M. Powell, & Cahn, Burton. (R.D. #2, Collegeville, Pa.) **A comparative study of the effects of listica and meprobamate upon motor functioning.** *J. Psychol.*, 1962, 54(1), 131-137.—A double blind study of the effects of hydroxyphenamate (listica) and meprobamate upon cancellation, digit symbol, speed of dotting, Purdue Pegboard performance, Porteus Maze performance, and hand steadiness was made, using paid prisoner volunteers as Ss. Analysis of both medication day scores and of placebo-medication difference scores failed to reveal any consistently positive or negative effect of either medication.—*Author abstract.*

2637. Linton, Harriet B., & Langs, Robert J. (New York U.) **Placebo reactions in a study of lysergic acid diethylamide (LSD-25).** *Arch. gen. Psychiat.*, 1962, 6(5), 369-383.—A 74-item questionnaire successfully differentiated 20 placebo from 30 LSD-25 Ss. "Strong placebo reactors are passive and poorly defended, comparatively insensitive, and unintellectual, with loose thinking and flattened affect. Weak placebo reactors tend to be sensitive to internal and external cues, self-examining and intellectually curious and to function well intellectually. Discussion of suggestibility, "the placebo situation," and "the placebo reactor." (26 ref.)—*L. W. Brandt.*

2638. Linton, Harriet B., & Langs, Robert J. (New York U.) **Subjective reactions to lysergic acid diethylamide (LSD-25): Measured by a questionnaire.** *Arch. gen. Psychiat.*, 1962, 6(5), 352-368.—Of 30 nonpsychotic male professional actors all of whom volunteered were given the MMPI, Rorschach, TAT, Wechsler-Bellevue, and a medical examination 30 received LSD-25 and 20 received placebo. Pretest-day, 4-test day, and posttest day responses to a 74-item questionnaire (included in text) are compared for both groups. Individual differences, S's reaction to the experimental situation, and psychoanalytic implications are discussed.—*L. W. Brandt.*

2639. Nowlis, Vincent. (U. Rochester, N. Y.) **Methods for studying mood changes produced by drugs.** *Rev. Psychol. appl.*, 1961, 11, 373-386.—There are complex technical and theoretical questions involved in the study of mood. Semantic explication of mood suggests the definition that mood is

the effect on a person of his own configurations of activity. A study of the literature indicates that a factor analytically standardized mood check list is already a technically superior instrument to most of those used in the study of self-concept. Mood refers to both the stream of behavior and to the vortices and forms which appear in that stream. It is in principle possible to coordinate statements about awareness with statements which include only behavioral, physiological, and environmental variables. In both the study of mood and in the study of non-specific drug effects we deal with a person and his total behavior and experience, and find that behavior and experience during the course of a research are dependent, in part, on the social situation, on the current psycho-physiological status, and current expectancies of the S, and on the complex social interactions which are developed during the course of the experiment. (46 ref.)—*W. W. Wattenberg.*

2640. Pfaff, Manfred. (Medizinische Poliklinik, Giessen, Germany) *Methodologische Überlegungen zur psychopharmakologischen Beeinflussung der Psychomotorik, der Psychosensorik, der Leistung und der Intelligenz.* [Methodological considerations of psychopharmacological influences on psychomotor and psychosensory functions and on performance and on intelligence.] *Rev. Psychol. appl.*, 1961, 11, 387-401.—Testing by "simple" procedures, efficiency psychophysiology, and complex phenomena can be investigated. "In psychopharmacologic experimentation, we can see how the results of such tests are related to interfering variables. Though a structured experimental situation, a careful choice of subjects, a precise determination of the experimental frame, the choice of appropriate tests, a sufficient statistical elaboration and adequate interpretation, are all necessary to psychopharmacology research, to reach scientifically sound and operational conclusions. Each of these items evokes a series of problems, showing that we are still far from an optimal methodology for the experimental study of sensory, psychomotor performance and intellectual alterations brought about by psychotropic drugs. We feel as being fundamental the qualitative aspect of such study, together with an internal critical attitude, to isolate those factors still hard to define with precision."—*W. W. Wattenberg.*

2641. Pichot, P. (Hôpital Ste.-Anne, Paris, France) *Structure de la personnalité et appréciation des modifications psychologique produites par les drogues psychotropes.* [Personality structure and estimation of psychological modifications produced by psychotropic drugs.] *Rev. Psychol. appl.*, 1961, 11, 353-360.—The Presidential Address at the Fourteenth International Congress of Applied Psychology. This paper stresses the importance of research on individual differences in the effects of psychotropic drugs and on the relationship of personality structure to such effects. Among animals of a given species there exists a variability in the action of drugs which is nonspecific. In experiments on humans there are both quantitative and qualitative differences in the effects of a drug upon different Ss. If we consider the action of drugs administered to mental patients we also encounter a portion of their effects which is nonspecific. While there are specific effects which render the drugs useful, a full understanding of the variations is necessary for the devel-

opment of theory as to their efficacy.—*W. W. Wattenberg.*

2642. Sharp, Joseph C., Nielson, Harold C., & Porter, Paul B. (Walter Reed Army Inst. Research, Washington, D. C.) *The effect of amphetamine upon cats with lesions in the ventromedial hypothalamus.* *J. comp. physiol. Psychol.*, 1962, 55(2), 198-200.—Amphetamine was administered to 10 cats, 4 of which had been rendered hyperphagic by hypothalamic lesions. The drug reduced food intake in the controls but not in the hyperphagic animals—a finding consistent with the hypothesis that amphetamine stimulates the satiety center in the ventromedial hypothalamus.—*W. A. Wilson, Jr.*

2643. Sines, Jacob O., & Keefe, Daniel J. (Washington U. School Medicine, St. Louis) *The relationship between pharmacologically modified operant response rate and heart rate.* *J. genet. Psychol.*, 1962, 100(2), 267-274.—10 male albino rats were trained under 21 hours of food deprivation to obtain food reward in a Skinner box. Their response rate was observed 3 times daily under conditions of no injection, .1 cc of normal saline, .4 mg/kg of epinephrine, and 5 mg/kg of chlorpromazine. Results were: (a) Epinephrine and chlorpromazine significantly reduced bar pressing rate from the rate observed following saline injection. (b) The doses of epinephrine and chlorpromazine used were behaviorally equivalent. and (c) The overall relationship between heart rate and bar pressing rate closely resembled the inverted U function predicted on the basis of an activation hypothesis.—*Author abstract.*

2644. Steinberg, Hannah. (University Coll., London, England) *Methods and problems of measuring drug-induced changes in emotions and personality.* *Rev. Psychol. appl.*, 1961, 11, 361-372.—All that any drug can do is to act on ongoing behavior and modify it; hence its effects must always to some extent be dependent upon the nature of the behavior going on at the time, and this in turn depends upon the S's personality, his current emotions, his past experience, and the setting in which the drug is administered. In determining the effects of drugs many methods have been used. These can be classified as (a) descriptive methods, (b) methods depending upon the efficiency of performance, and (c) physiological methods. To illustrate the complexity of the problem, results are reported from an experiment in which a control group, a group administered amphetamine, a group administered cyclobarbitone, and a group administered a mixture of the 2 were presented with a tapping task and encouraged to report on their feelings and sensations. On the tapping task the effects of the 2 drugs were opposite and in the mixture cancelled out; however, as to feelings of elation, the effects were in the same direction and seemed to augment each other. (53 ref.)—*W. W. Wattenberg.*

2645. Torres, Aurelio Adolfo. (U. Minnesota) *Anxiety versus escape conditioning and tranquilizing action.* *Disseri. Abstr.*, 1962, 22(12), 4420.—*Abstract.*

2646. Umemoto, Mamoru. (U. Tokyo) *The effects of reserpine on a simple operant response in punishment and in CER conditioning.* *Jap. J. Psychol.*, 1962, 33(1), 1-7.—This study was designed to investigate the difference in suppressant effects with reserpine in conditioned emotional response con-

ditioning and electric shock punishment. It was found that reserpine seemed to block the formation of CER, or to facilitate its extinction, but had little effect when the CER was already established.—*A. Barclay*.

2647. Voznesenskii, B. B. (Sechenov Medical Inst., Moscow, USSR) Vliianie dezoksikortikosterona na razlichnye komponenty dvigatel'nykh oboronitel'nykh uslovnykh refleksov u sobak. [Effect of desoxycorticosterone on various components of motor defensive CR in dogs.] *Zh. vyssh. nervn. Deiatel.*, 1961, 11(6), 1044-1051.—Motor, respiratory, and cardiac components of the defensive CR of 4 dogs were studied under the influence of the drug. It was established that the strength of the motor and of the respiratory components decreases. The effects of the drug depend upon the individual characteristics of the animals.—*A. Cuk*.

2648. Weeks, James R. (Upjohn Co., Kalamazoo) Experimental morphine addiction: Method for automatic intravenous injections in unrestrained rats. *Science*, 1962, 138(Whole No. 3537), 143-144.—An operant behavioral study on morphine addiction utilized a self-injection technique for giving intravenous injections to relatively unrestrained rats. The rate of self-injection varied inversely with the dose. Morphine was a reinforcer that produced almost immediate satiation.—*Journal abstract*.

ENVIRONMENTAL EFFECTS

2649. Close, Perry, & Ireland, Roger. Effect of certain variations in the physiologic state on tolerance to explosive decompression. *USN Sch. Aviat. Med. res. Rep.*, 1961, Proj. MR005-13-1002, Subtask 17, Rep. No. 1. 16 p.—Tolerance to explosive decompression was found to vary with certain induced changes in physiologic state. Surgical procedures which lower and raise airway resistance, respectively, increase and decrease tolerance to explosive decompression. Nor-epinephrine administered to albino rats and histamine administered to guinea pigs decrease tolerance to, and alter pathology in, explosive decompression. On the basis of certain facts and noted pathology which includes perivascular hemorrhages, it was hypothesized that major damage in explosive decompression is possibly a consequence of stretching of the pulmonary vessels in conjunction with a sudden increase in blood pressure.—*USN SAM*.

2650. Gimadeev, M. M. Vliianie parov rtuti na voriradotku uslovnirokh refleksov u krolikov. [Effects of mercury vapors on the elaboration of conditioned reflexes in rabbits.] *Farmakol. Toksikol.*, 1962, 25(2), 136-138.

Radiation

2651. Furchtgott, Ernest, & Wechkin, Stanley. (U. Tennessee) Avoidance conditioning as a function of prenatal X irradiation and age. *J. comp. physiol. Psychol.*, 1962, 55(1), 69-72.—Avoidance learning in a Miler-Mowrer box was examined in rats 3½, 14, or 20 months of age, ½ of which had been X irradiated in utero. Conditioning was more rapid in the irradiated rats than the controls, presumably due to differences in fearfulness. Rate of conditioning decreased with age, apparently due to a decrease in response speed. The interaction of age

and irradiation was not significant.—*W. A. Wilson, Jr.*

2652. Hunt, Edward L., & Kimeldorf, Donald J. (USN Radiological Defense Lab., San Francisco, Calif.) Evidence for direct stimulation of the mammalian nervous system with ionizing radiation. *Science*, 1962, 137(Whole No. 3533), 857-859.—Exposure to X-rays of low intensity immediately arouses the sleeping rat. Activation of the central nervous system, indicated by behavioral and heart rate responses, depends upon the rate but not the dose of exposure. The arousal reaction is not dependent upon direct visual stimulation. The nervous system is probably directly sensitive to ionizing radiation.—*Journal abstract*.

2653. Kaplan, Sylvan J. (Texas Technological Coll.) Radiation research in psychology: An analysis of techniques in maze experimentation. *Psychol. Bull.*, 1962, 59(2), 153-160.—The Lashley III maze has been frequently used in studying the effects of radiation on rats because it has been efficient in showing differential effects upon learning as related to amount of cortical insult. Although results have been remarkably consistent, an analysis of methodological procedures reveals a considerable variation. The need for standardizing apparatus and procedures is discussed.—*W. J. Meyer*.

2654. Schaefer, Hermann J. (USN School Aviation Medicine, Pensacola, Fla.) LET analysis of tissue ionization dosages for proton radiations in space. *USN Sch. Aviat. Med. res. Rep.*, 1962, Proj. MR005-13-1002, Subtask 1, Rep. No. 21. ii, 13 p.—Earlier computations of the distribution of the ionization dosage within a spherical tissue phantom of 30 cm. diameter behind 3 different shield thicknesses for exposure to flare-produced and Van Allen Belt protons are amended by a separate evaluation of the dose fraction produced at a linear energy transfer (LET) exceeding 40 kev/micron. For the 1st radiation, this fraction is always smaller than 2%, and for the 2nd, smaller than 0.5%. Separate determination of the 2 fractions seems advisable for assessment of the net exposure status and estimates of late effects, since damage from radiation of high LET is non-recoverable.—*USN SAM*.

2655. Schaefer, Hermann J. (USN School Aviation Medicine, Pensacola, Fla.) Time profile of tissue ionization dosages for Bailey's synthetic spectrum of a typical solar flare event. *USN Sch. Aviat. Med. res. Rep.*, 1962, Proj. MR005-13-1002, Subtask 1, Rep. No. 22. ii, 9 p.—Bailey's set of spectra describing development and decay of a typical flare-produced solar particle beam, based on comparative evaluation of radar observations of polar cap absorption events and direct measurements with high altitude vehicles, is evaluated in terms of tissue dose rates and integral dosages within a spherical tissue target behind different shielding. For light shielding a maximum instantaneous dose rate of 4.7 r/hr and an integral dose of 200 r for the total duration of 64 hours are obtained. Tables and graphs show the complex changes occurring during build-up and decay of a flare event.—*USN SAM*.

Stress

2656. Longo, Alexander A., & Doll, Richard E. (USN School of Aviation Medicine, Pensacola, Fla.)

The relationship of arousal measures to subsequent behavior: I. Group estimates of individual stress susceptibility. *USN Sch. Aviat. Med. res. Rep.*, 1962, Proj. MR005.13-3003, Subtask 14, Rep. No. 1. ii, 10 p.—The relationship between physiological arousal measures taken under 3 physically threatening conditions and ratings of stress susceptibility was investigated. Consistency in arousal response was also examined. The arousal measures are designated as changes in pulse and blink rate under threat of physical pain. Stress susceptibility is defined as over-reactivity to threat of impending physical pain as estimated by peer ratings. The results indicated a significant relationship between one blink rate measure and ratings of stress susceptibility, and a partial interstress and intermeasure consistency of response to physical threat. The use of muscular tension measures (e.g., blink rate) for predictive purposes appears to have potential value.—*USN SAM*.

2657. Newbury, Edward Lee. (Princeton U.) Body temperature and work decrement in rats under cold stress. *Dissert. Abstr.*, 1961, 22(6), 2082.—*Abstract*.

NUTRITION

2658. Pshonok, A. T., & Gribanov, A. A. (Chair Normal Physiology, Krasnoyarsk Medical Inst., USSR) O vliianii vitamina B₁₂ na uslovno-reflektornuiu deiatel'nost' sobak. [Effect of vitamin B₁₂ on the conditioned activity of dogs.] *Zh. vyssh. nervn. Deiatel.*, 1961, 11(6), 1026-1031.—The vascular CRs of 4 dogs were studied. Light and sound were used as CS. Vitamin B₁₂ was administered in doses of 30, 80-100, and 500 γ . Marked disturbances of reflex activity were found. These showed in a weakening of the CR up to their full disappearance, in the intensification of UR, and in an increase of inhibition.—*A Cuk*.

GENETICS & BEHAVIOR

2659. Broadhurst, P. L. (U. London) Analysis of maternal effects in the inheritance of behaviour. *Anom. Behav.*, 1961, 9(3-4), 129-141.—Postnatal maternal effects in rats were assessed by cross-fostering during 6 generations of breeding for extremes of emotional elimination while in an open-field. Prenatal effects were tested by reciprocal crossing between lines. Scores showed little evidence of pre- or post-natal effects "under conditions judged favorable for its occurrence."—*W. J. Coppock*.

2660. Carvalho, G. G., & Da Cruz, M. P. (U. Brazil) Transfer of the "sex-ratio" factor in *Drosophila willistoni* by ingestion. *Science*, 1962, 138(Whole No. 3536), 51.—39 females from a normal strain of *Drosophila willistoni* were kept in bottles containing a drop of a supernatant of a macerate of "sex-ratio" condition and transmitted it to their progenies.—*Journal abstract*.

2661. Fuller, John L. (Roscoe B. Jackson Memorial Lab., Bar Harbor, Me.) Heredity, animal behavior and psychiatry. *J. nerv. ment. Dis.*, 1962, 135(1), 5-9.—"This paper is divided into three parts. The first section is an account of studies conducted on dogs with my colleague, Dr. J. P. Scott, which illustrates certain general principles of behavior genetics. A second portion deals briefly with significant new developments which are likely to assume

greater importance in the next decade. Finally, the paper concludes with a discussion of the two basic experimental approaches to behavior genetics which, starting at opposite ends of the continuum between genes and behavior, eventually converge on the same basic problems."—*N. H. Pronko*.

2662. Hulse, Frederick S. (U. Arizona) Warfare, demography and genetics. *Eugen. Quart.*, 1961, 8(4), 185-197.—Anthropological evidence is marshalled for the thesis that the major genetic effect of warfare has been to reduce genetic differences between populations and to shift gene frequencies. Little support was found for the idea of a biological rather than cultural basis for characterizing tribes or nations as warlike or peaceful. It does appear that the relative proportions of populations may have been considerably affected by warfare, especially when victory led to extermination or slavery of the defeated.—*S. G. Vandenberg*.

2663. Lienert, G. A. & Reisse, H. (U. Hamburg & Marburg, Germany) Ein korrelationsanalytischer Beitrag zur genetischen Determination des Neurotizismus. [A correlation-analytical contribution to the problem of genetic determination of neuroticism.] *Psychol. Beitr.*, 1962, 7(1), 121-130.—In dealing with the problem of the relative share of hereditary and milieu factors in the formation and degree of Eysenck's "neuroticism," the method developed by C. Burt and M. Howard is applied. 200 families and 721 family members answered the questionnaire of W. Horn. On the basis of the answers, parents-children and interparental correlations were computed. The results show that if a medium incomplete dominance of the characteristic "neuroticism" is assumed, the share of hereditary and milieu factors is 50% for each factor. (English & French summaries)—*H. J. Priester*.

2664. Palermo University, Psycho-Statistic Centre. Heredity and environment in the development of mental activity. *J. psychol. Res., Madras*, 1962, 6(1), 52-53.—Studies with 10,000 children show positive correlations between intelligence and socioeconomic level and negative correlations between intelligence and family size. The social consequences are important.—*U. Pareek*.

2665. Vandenberg, Steven G. (U. Louisville) The Hereditary Abilities Study: Hereditary components in a psychological test battery. *Amer. J. hum. Genet.*, 1962, 14(2), 220-237.—"A battery of psychological tests furnishing one hundred seventeen separate scores was administered to forty-five pairs of identical twins and thirty-seven pairs of fraternal twins drawn from high schools in Ann Arbor, Ypsilanti, Dearborn, and Detroit, Michigan. Six groups of variables were measured: (1) Thurstone's Primary Mental Abilities Tests, (2) a variety of other cognitive and achievement tests, (3) motor skills, (4) perceptual skills, (5) sensory tests and measures of musical ability and interest, and (6) personality. Each of these six groups contained a number of variables for which a significant degree of hereditary control was found, as indicated by an F above 2.00 for the ratio between the fraternal and identical within-pair variances. The proportion of variables for which at least a 5 per cent level of significance was reached varied between these six groups of variables. For 24, or 20.5 per cent of the one hundred seventeen variables, the F ratio exceeded the

1 per cent level of significance, and for another twenty-eight or 23.9 per cent the F ratio exceeded the 5 per cent level. Some evidence is presented which indicates that psychological tests which work well as predictors of social criteria such as success in academic studies, etc., may not be most promising for studies of hereditary factors."—*S. G. Vandenberg.*

2666. Williams, Carl D., Zerof, Selwyn A., & Carr, Richard M. (U. Miami) Exploratory behavior of the crosses of three strains of rats. *J. comp. physiol. Psychol.*, 1962, 55(1), 121-122.—Exploratory behavior in a small Y maze was studied for crosses of 3 strains of rat. The 2 crosses possessing hooded parentage explored more than the albino-black cross, displaying that genetic factors play a part in the determination of such behavior.—*W. A. Wilson, Jr.*

LATERAL DOMINANCE

2667. Reed, G. F., & Smith, A. C. (U. Manchester, England) A further experimental investigation of the relative speeds of left and right-handed writers. *J. genet. Psychol.*, 1962, 100(2), 275-288.—A group of 58 left-handed writers representing 3 age levels and drawn from 7 schools were matched with a group of right-handed writers by sex, age, and school. Using pen and ink the Ss carried out a simple repetitive writing task and a prose transcription speed test for 10 minutes. Free compositions were obtained from 2 similarly equated groups, of 54 children each, from 6 other schools. No significant differences were found between the groups on any of the tests where either speed or legibility was concerned. The differences between schools were greater than handedness or sex differences in writing.—*Author abstract.*

ANIMAL PSYCHOLOGY

2668. Byck, Robert, & Hearst, Eliot. (Clinical Neuropharmacology Research Cent.) Adjustment of monkeys to five continuous days of work. *Science*, 1962, 138(Whole No. 3536), 43-44.—The efficiency of well-trained monkeys improved after repeated exposures to a prolonged task. This result suggests that resistance to fatigue may be increased by prior experience with the fatiguing situation.—*Journal abstract.*

2669. Vatsuro, E. G. (Sechenov Inst. Evolutionary Physiology, USSR Acad. Sciences, Leningrad) O nekotorykh obshchikh zakononomernostyakh vysshei nervnoi deiatel'nosti (povedeniia) zhivotnykh. [Some general laws governing the higher mental activity (behavior) of animals.] *Zh. vyssh. nervn. deiatel.*, 1961, 11(6), 1012-1018.—There is a need to study the higher nervous activity not only by means of limited techniques such as the EEG but also from the general biological and behavioral point of view. This aspect is more important and more in accordance with the Pavlovian concepts. Several papers from the author's school dealing with adaptive behavior are summarized.—*A. Cuk.*

NATURAL OBSERVATION

2670. Agin, Martin Jack. (Rutgers U.) A descriptive analysis of the behavior patterns in the

ring dove (*Streptopelia risoria*). *Dissert. Abstr.*, 1961, 22(6), 2061.—*Abstract.*

2671. Alabaster, J. S., & Robertson, K. G. (Ministry Agriculture, London, England) The effect of diurnal changes in temperature, dissolved oxygen and illumination on the behavior of roach (*Rutilus rutilus*), bream (*Abramis brama*) and perch (*Perca fluviatilis*). *Anim. Behav.*, 1961, 9(3-4), 187-192.—Movements of shoals of 10 or more fish were watched in a 100-foot tank in which temperature and oxygen could be manipulated and monitored. The normal increase in activity at dawn was seen during constant temperature and oxygen.—*W. J. Coppock.*

2672. Bragg, Arthur N. (U. Oklahoma) A theory of the origin of spade-footed toads deduced principally by a study of their habits. *Anim. Behav.*, 1961, 9(3-4), 178-186.—Literature on habits of *Scaphiopus* is critically reviewed and used to support arguments about their evolutionary history.—*W. J. Coppock.*

2673. Chiang, H. C. (U. Minnesota) Ecology of insect swarms: I. Experimental studies of the behavior of *Anarete* near *felti* Pritchard in artificially induced swarms (*Cecidomyiidae*, *Diptera*). *Anim. Behav.*, 1961, 9(3-4), 213-219.—"The relations between some characteristics of the source of attraction and the swarming of the midge were described. White Bristol boards against a dark background were used as the source of attraction. It was found that the degree of attraction varied with the size and position of the boards, the general lighting, and the proximity, intensity and position of other sources of attraction. An association between swarming and mating was suggested."—*W. J. Coppock.*

2674. Durand, Marguerite. Notes sur le comportement de deux souris. [Observations of the behavior of two mice.] *J. Psychol. norm. pathol.*, 1961, 58(2), 217-218.—Naturalistic observations of 2 mice in captivity—1 gray, 1 white, of very different temperament and intelligence.—*M. L. Simmel.*

2675. Goodrick, C. L. (U. Pittsburgh Medical School) Differential adaptation of activity in the blind cave fish, *Anoptichthys jordani*. *Percept. mot. Skills.*, 1962, 14(1), 10.—This preliminary report investigated the environmental adaptation of the blind cave fish. Activity change over a 35-minute period after being moved from the home tank to a plastic container is depicted graphically. Activity in terms of mean quadrants traversed per minute disclosed 2 types of S reaction: (a) initial exploratory behavior with frequent contact with the container followed by decreased contact and increased activity (locomotion), and (b) the same initial activity followed by increased contact and vigorous escape movements but low activity (locomotion).—*W. H. Guertin.*

2676. Mitchell, Rodger. (U. Florida) Behaviour of the larvae of *Arrenurus fissicornis* Marshall, a water mite parasitic on dragonflies. *Anim. Behav.*, 1961, 9(3-4), 220-224.—The attachment of larvae as the host emerges from the naiad skin is described. When emergence was interrupted 30 seconds or more after initiation, the sequence of mite behavior was unaltered. "Thus it appears that timing alone is responsible for site specificity and that the stimulus evoking the behaviour of mite larva during host emergence is perceived during the first thirty seconds of host emergence."—*W. J. Coppock.*

EARLY EXPERIENCE (INCLUDING IMPRINTING)

2677. Bell, Robert W., & Felbinger, Robert J. (Allegheny Coll.) Effects of free and restricted environmental experience on the development of socio-sexual behavior in the rat. *Psychol. Rep.*, 1962, 10(2), 351-356.—"Sixty-seven Wistar albino rats, comprising eight litters, were reared under conditions of perceptual restriction or enhancement during either pre-weaning or postweaning development. At 43 days of age all Ss were sexually segregated, housed in mesh cages, and tested for indices of mating behavior." Lower frequencies of various types of sexual activity were observed for rats reared under restricted conditions, with larger effects obtained when the restricted environment was present during pre-weaning than post-weaning. Several interpretations of the results were discussed.—B. J. House.

2678. Campbell, Byron A., & Campbell, Enid Hobart. (Princeton U.) Retention and extinction of learned fear in infant and adult rats. *J. comp. physiol. Psychol.*, 1962, 55(1), 1-8.—Conditioned fear was established in a Miller learned-fear apparatus, with groups of rats varying from 18 to 100 days of age. Retention (over intervals from 0 to 42 days) varied directly with age at the time of conditioning, but the rate of immediate extinction of fear did not correlate with age. It is concluded that the importance of early experience in determining adult motives cannot be attributed to greater retention, or resistance to extinction, of drives acquired in infancy.—W. A. Wilson, Jr.

2679. Ganz, Leo, & Riesen, Austin H. (Brown U.) Stimulus generalization to hue in the dark-reared macaque. *J. comp. physiol. Psychol.*, 1962, 55(1), 92-99.—Macaques were reared in total darkness to the age of 10 weeks, and were then taught to discriminate a given monochromatic stimulus from darkness. Generalization to a 180-m μ spectrum was measured under extinction. The experimental group appeared to learn the discrimination more slowly than a control group. Decremental generalization gradients were obtained, which were steeper and more concave upward in the experimental group.—W. A. Wilson, Jr.

2680. Gray, P. H. (Montana State Coll.) Is the imprinting critical period an artifact of a biological clock? *Percept. mot. Skills*, 1962, 14(1), 70.—Chicks hatched and maintained in isolation were placed in a test box to determine object preference in the approach responses during their first 4 days of life. A statistically significant diurnal rhythm in preference for adult vs. age-mate is found across all 4 days. Preference for the adult increase to a maximum around midnight followed by a reversal to preference for the age-mate. The danger of this biological clock phenomenon appearing as an artifact in imprinting studies is emphasized.—W. H. Guertin.

2681. Gray, P. H. Verification of Spalding's method for controlling visual experience by hooding chicks in the shell. *Proc. Mont. Acad. Sci.*, 1962, 21, 120-123.—"For the first time, the experimental work [of D. A. Spalding] has been duplicated using his method. Fifty-four chicks, hooded in the shell, showed the following behavior: backward locomotion; marked initial nystagmus after removal of the hood, more severe in older chicks (five to six days), with initial inaccuracy of visual-motor responses; a greeting ritual (in chicks at least four days old at unhooding); a fear of man evidenced by

running toward a localized light source on the animal's horizon (in chicks unhooded at four days and older). This verification of Spalding's work provides another confirmation of his genius."—C. H. Ammons.

2682. Kaufman, I. C., & Hinde, R. A. (Cambridge) Factors influencing distress calling in chicks, with special reference to temperature changes and social isolation. *Anim. Behav.*, 1961, 9(3-4), 197-204.—Chicks were placed in a strange pen 24 hours after hatching and tested for rate of distress calling on Days 1 through 7. Rate of calling was higher at 60° F. than 110° F. for those reared in groups, and rate of calling increased with age. Chicks reared in isolation did not show this age effect. Results are discussed in relation to critical periods in imprinting.—W. J. Coppock.

2683. Klopfer, Peter H., & Gottlieb, Gilbert. (Duke U.) Imprinting and behavioral polymorphism: Auditory and visual imprinting in domestic ducks (*Anas platyrhynchos*) and the involvement of the critical period. *J. comp. physiol. Psychol.*, 1962, 55(1), 126-130.—Peking ducklings were exposed to a moving decoy which emitted sounds, and were later tested for response to the sounds alone, and to the silent decoy. Auditory imprinting appeared to take place at an earlier age than visual imprinting, but the strength of auditory and visual imprinting did not appear to be correlated. It is suggested that variability in modality of sensitivity may be adaptive to the brood, since it generally follows the most responsive individual in any situation.—W. A. Wilson, Jr.

2684. Marr, John Nelson. (Michigan State U.) Varying stimulation and imprinting in dogs. *Disser. Abstr.*, 1962, 22(12), 4403.—Abstract.

2685. Newton, Grant; Bly, Chauncey G., & McCrary, Cedric. (Upstate Medical Cent., Syracuse, N. Y.) Effects of early experience on the response to transplanted tumor. *J. nerv. ment. Dis.*, 1962, 134(6), 522-527.—"The purpose of this study was to determine the effect of handling introduced in the immediate post-weaning period on mortality of male and female albino rats arising from implantation at 45 days of age with cells of Walker carcinoma 256. Results indicated that handled rats as a group survived longer than did nonhandled littermate controls. Neither males nor females, when considered separately, lived significantly longer than controls. Autopsies performed on a sample of rats from each group revealed that handled animals had smaller adrenals by percentage weight than did corresponding controls."—N. H. Pronko.

2686. Ressler, Robert H. (Western Reserve U.) Parental handling in two strains of mice reared by foster parents. *Science*, 1962, 137 (Whole No. 3524), 129-130.—The amount of handling received in 10 daily tests by infant mice reared by foster parents was significantly affected by the strain of pups and by the strain of foster parents. This finding suggests that at least some behavioral differences between highly inbred strains may be due to early environmental rather than genetic variation.—Journal abstract.

2687. Spence, Janet Taylor, & Maher, Brendan A. (VA Hosp., Iowa City, Ia.) Handling and noxious stimulation of the albino rat: I. Effects on subsequent emotionality. *J. comp. physiol. Psy-*

chol., 1962, 55(2), 247-251.—Emotional responsiveness was studied in rats which had been exposed to handling or intense auditory stimulation (or neither), either before or after weaning. Responsiveness was greatest in untreated controls, and greater in post-weaning than preweaning experimental groups. However, handling and auditory trauma per se had an effect no greater than the stimulation incidental to being moved to the experimental room as if in preparation for experimental treatment.—*W. A. Wilson, Jr.*

2688. Spence, Janet Taylor, & Maher, Brendan A. (VA Hosp., Iowa City, Ia.) Handling and noxious stimulation of the albino rat: II. Effects on subsequent performance in a learning situation. *J. comp. physiol. Psychol.*, 1962, 55(2), 252-255.—Running speed in a straight alley was studied in rats which had been exposed to handling or intense auditory stimulation (or neither), either before or after weaning. Speeds were slower in control groups and in the postweaning experimental groups than in the preweaning experimental groups.—*W. A. Wilson, Jr.*

2689. Thompson, William R., & O'Kieffe, M. W. (Wesleyan U.) Imprinting: Its effect on the response to stress in chicks. *Science*, 1962, 135 (Whole No. 3507), 918-919.—Young chicks imprinted to surrogate mothers were compared with nonimprinted controls on 2 tests designed to measure resistance to stress. $\frac{1}{2}$ of each group was run with and $\frac{1}{2}$ without a surrogate present during the stress. One test involving survival time under starvation showed no effects. However, in the other tests, imprinted chicks showed fewer distress calls in response to auditory stimulation than nonimprinted controls.—*Journal abstract.*

REFLEXES & INSTINCTIVE BEHAVIOR

2690. Abercrombie, Barbara, & James, H. (Queen's U., Ontario) The stability of the domestic chick's response to visual flicker. *Anim. Behav.*, 1961, 9(3-4), 205-212.—The approach response to an intermittent light source or a stimulus previously paired with intermittent light was repeatedly elicited in a total of 64 chicks. No decrement during 12 testing days appeared in the approach to intermittent light. In another group, a stationary object was presented alone, after 2 days of pairing with a flickering light. Approach during the next 13 days decreased some when 3 tests were given a day but did not change significantly when only 1 test per day was given.—*W. J. Coppock.*

2691. Davis, Roger E. (U. Michigan) Daily rhythm in the reaction of fish to light. *Science*, 1962, 137(Whole No. 3528), 430-432.—Bluegills in a 24-hour light-dark cycle were exposed briefly to light at a random time in the daily dark period. The duration of the accompanying "light-shock reaction" daily became longer at times early in the dark period and shorter at times in the later hours of darkness.—*Journal abstract.*

2692. Davis, Russell, & Cockrum, E. Lendell. (U. Arizona) Repeated homing exhibited by a female pallid bat. *Science*, 1962, 137(Whole No. 3527), 341-342.—A pallid bat returned home from 8 consecutive releases from 6 distinctly different directions and from distances ranging from 21 to 68 miles. This performance indicates that chance alone cannot be a major factor in homing, and that certain

abilities possessed by this bat, and not simply randomness, must have been in operation.—*Journal abstract.*

2693. Erlenmeyer-Kimling, Loise Fay. (Columbia U.) A genetic analysis of geotaxis in *Drosophila melanogaster*. *Dissert. Abstr.*, 1961, 22(4), 1262.—*Abstract.*

2694. Free, J. B. (Rothamsted Experiment Station, England) The stimuli releasing the stinging response of honeybees. *Anim. Behav.*, 1961, 9(3-4), 193-196.—Muslin-wrapped cotton balls were suspended by threads and displayed near hives. More stings were left in balls that were dark-colored on dark backgrounds, that had odor of sting venom or human sweat, or that were moving rapidly. Smoke and various repellents reduced the number of stings.—*W. J. Coppock.*

2695. Maier, Richard Ali. (Kansas State U.) Maternal behavior in the domestic hen. *Dissert. Abstr.*, 1962, 22(12), 4418.—*Abstract.*

2696. Smith, F. V., & Hoyes, P. A. (U. Durham, England) Properties of the visual stimuli for the approach response in the domestic chick. *Anim. Behav.*, 1961, 9(3-4), 159-166.—Approach toward various stimuli when first presented to 18-30 hour old chicks was measured. No differences in approach to vertical vs. horizontal movement, nor red, green, or white colors were noted. Size and height of stimulus above chick were found to be important. Individual differences were marked.—*W. J. Coppock.*

2697. Ulrich, Roger Elwood. (Southern Illinois U.) Reflexive fighting in response to aversive stimulation. *Dissert. Abstr.*, 1962, 22(12), 4421.—*Abstract.*

MOTIVATION & EMOTION

2698. Ader, Robert, & Belfer, Myron L. (School of Medicine and Dentistry, U. Rochester) Emotional behavior in the rat as a function of maternal emotionality. *Psychol. Rep.*, 1962, 10(2), 349-350.—Mean number of squares traversed in the open field was higher for 31 offspring of high-emotional mothers than for 25 offspring of low-emotional mothers during the 1st test but not the 2nd, yielding a significant groups \times tests interaction. Females had significantly higher scores than males.—*B. J. House.*

2699. Bacon, W. Edward; Snyder, Harry L., & Hulse, Stewart H. (Johns Hopkins U.) Saccharine preference in satiated and deprived rats. *J. comp. physiol. Psychol.*, 1962, 55(1), 112-114.—Rats were given 1-hr., 2-bottle preference tests with water and each of 6 concentrations of saccharine; $\frac{1}{2}$ the animals had been deprived of food and water. Deprivation increased relative preference for saccharine, as well as increasing water intake. The effects due to drive state were more pronounced as saccharine concentration increased, and deprived rats preferred a higher concentration than did satiated rats.—*W. A. Wilson, Jr.*

2700. Belanger, David, & Feldman, Samuel M. (U. Montreal, Canada) Effects of water deprivation upon heart rate and instrumental activity in the rat. *J. comp. physiol. Psychol.*, 1962, 55(2), 220-225.—Heart rate and lever-press rate were measured in rats that were pressing for water under various conditions of deprivation. Heart rate increased monotonically with length of deprivation. Lever-press rate increased with deprivation up to 48 hrs.,

but decreased with greater deprivation. "This type of data seems to find a most plausible explanation in the context of the 'energetics' definition of drive and the activation hypothesis."—*W. A. Wilson, Jr.*

2701. Best, Jay Boyd, & Rubinstein, Irvin. (Walter Reed Army Inst. Research) Environmental familiarity and feeding in a planarian. *Science*, 1962, 135(Whole No. 3507), 916-918.—Planarians, in common with higher animals, tend to delay feeding in environmental conditions to which they are habituated.—*Journal abstract.*

2702. Bolles, Robert C. (Hollins Coll.) A psychophysical study of hunger in the rat. *J. exp. Psychol.*, 1962, 63(4), 387-390.—"Rats were trained to respond differentially on the basis of small and large prefeedings. When the discrimination had become established (the median trials to criterion was 43) the task was made progressively more difficult by reducing the difference between small and large prefeedings. The point at which performance fell to 75% correct was defined as a discriminability threshold, and such thresholds obtained at different points on the prefeeding continuum were used to construct a psychophysical 'scale' of hunger."—*J. Arbit.*

2703. Bolles, Robert C. (Hollins Coll.) The readiness to eat and drink: The effect of deprivation conditions. *J. comp. physiol. Psychol.*, 1962, 55(2), 230-234.—The latency of eating and drinking in a new situation was measured for rats that had been deprived of food or water. In general, latencies could be described as a power function of deprivation time; prior deprivation experience facilitated eating and drinking. Successive measures suggested that food reinforces eating only if the rat has incurred a weight-loss, but water is a reinforcer (of drinking) provided 24 hrs. of deprivation has ensued.—*W. A. Wilson, Jr.*

2704. Denenberg, Victor H., & Morton, John R. C. (Purdue U.) Effects of environmental complexity and social groupings upon modification of emotional behavior. *J. comp. physiol. Psychol.*, 1962, 55(2), 242-246.—Daily from birth until weaning, rats were either handled or not handled; for the following 25 days, they lived either in laboratory cages or in Hebb free-environmental boxes. Both handling and free-environmental experience acted to reduce emotionality measured later in life. Mixing handled rats with nonhandled rats in the free-environment boxes was beneficial for handled Ss, but detrimental for nonhandled rats. An explanation is suggested, "based upon the social dynamics of play behavior."—*W. A. Wilson, Jr.*

2705. Draper, William Arthur. (U. Oregon) A behavioral study of the home-cage activity of the white rat under normal, deprivation, and drug conditions. *Dissert. Abstr.*, 1962, 22(12), 4418.—*Abstract.*

2706. Finger, Frank W. (U. Virginia) Activity change under deprivation as a function of age. *J. comp. physiol. Psychol.*, 1962, 55(1), 100-102.—Food deprivation (for 48 hr.) of rats 31-35 days of age to much larger increases in activity, measured as movement across the midline of a stationary cage, than were found in older rats in earlier studies using the same apparatus. When later subjected to water deprivation, the rats appeared to become less active.—*W. A. Wilson, Jr.*

2707. Halstead, Ward C., & Gallagher, Brian B. (U. Chicago) Autoregulation of amino acids intake in the albino rat. *J. comp. physiol. Psychol.*, 1962, 55(1), 107-111.—In addition to water and a basal diet, rats were presented with complete and incomplete (lacking threonine) amino acid solutions in a 2-bottle situation; the solutions were varied in left-right position daily. 42 out of 54 rats discriminated, choosing more of the complete solution, demonstrating "a capacity for autoregulation of an essential amino acids solution in a survival situation."—*W. A. Wilson, Jr.*

2708. Larsson, Knut, & Essberg, Leif. (U. Goteborg) Effect of age on the sexual behaviour of the male rat. *Gerontologia*, 1962, 6(2-3), 133-143.—The male rat mating behaviour was studied in 4 different age groups, 103-114, 125-164, 450-510, and 573-651 days, respectively, from the stock of albino rats bred and maintained at the Goteborg Laboratory. The Ss were allowed to mate until they attained a specified criterion of exhaustion. The capacity to attain repeated ejaculations increased with age. The number of intromissions preceding ejaculation was highest in the youngest age group and progressively decreased with age. The response latencies were progressively reduced up to 450-510 days of age but became prolonged in the oldest age group. The young male copulated with maximal speed immediately after presentation of the receptive female; the Ss in the 2 oldest age groups showed minimal response latencies only in the presence of facilitatory effects from 1 and 2 series of copulations. This was considered to indicate a heightened threshold in old age for the arousal of the copulatory response.—*L. Shatin.*

2709. Menzel, Emil W., Jr., & Davenport, Richard K., Jr. (Yerkes Lab. Primate Biology) The effects of stimulus presentation variable upon chimpanzee's selection of food by size. *J. comp. physiol. Psychol.*, 1962, 55(2), 235-239.—Chimpanzees were presented with choices between 2 pieces of food, differing in size. Trials differed with respect to the way in which the pieces were presented before choice (both visible, or only one) and during choice (both or one or neither visible). Choice of the larger piece was most frequent when both pieces were visible, although presentation of the larger piece alone led to almost as good performance. However, when the size difference of the pieces was relatively great, differences in performance under the various conditions were not very apparent.—*W. A. Wilson, Jr.*

2710. Ross, Sherman; Goldstein, Irwin, & Kaplan, Stephen. (American Psychological Ass. Central Office) Perceptual factors in eating behavior in chicks. *J. comp. physiol. Psychol.*, 1962, 55(2), 240-241.—Chicks under 4-hr. food deprivation were presented with piles of grain of different size; the amount eaten in a 30-min. interval was linearly related to the size of the pile. It is suggested that more food is eaten from a larger pile because the chick can get at the food more easily.—*W. A. Wilson, Jr.*

2711. Smith, Moncrieff; Pool, Ronald, & Weinberg, Harold. (U. Washington) Role of bulk in the control of eating. *J. comp. physiol. Psychol.*, 1962, 55(1), 115-120.—6 experiments are reported which demonstrate that rats eating 1 meal per day can maintain their weight when their diet is adulterated with cellulose or kaolin, but only if the unadulterated basic diet is of high caloric density. With

Purina chow, rats can survive slight adulterations, although at a reduced weight. Cues from stomach bulk appear to be operating when animals stop eating before attaining normal caloric intake, but are of minor importance in stopping eating when a normal intake can be achieved.—*W. A. Wilson, Jr.*

2712. Steinberg, June, & Bindra, Dalbir. (McGill U.) Effects of pregnancy and salt-intake on genital licking. *J. comp. physiol. Psychol.*, 1962, 55 (1), 103-106.—Pregnant and nonpregnant females, and male rats, were observed in their home cages; time spent in licking the genital area was recorded. Pregnancy was shown to increase genital licking. Since consumption of a salt solution decreased genital licking in females, an interpretation of pregnancy-induced genital licking in terms of salt deficiency is supported.—*W. A. Wilson, Jr.*

2713. Sterritt, Graham M. (U. Colorado School Medicine) Inhibition and facilitation of eating by electric shock. *J. comp. physiol. Psychol.*, 1962, 55 (2), 226-229.—Rats given unavoidable electric shock ate more when the shock was on than when it was off, and ate more during shock than was eaten in a comparable period by control rats. However, shocked rats underate when shock was off, and thus ate less in the total experimental period—a finding "consistent with usual reports of inhibition of eating by competing responses elicited by anticipation of shock."—*W. A. Wilson, Jr.*

2714. Theios, John; DeRivera, Joseph, & Aronson, Elliot. (U. Texas) Modification of the rat's saline intake gradient by experience with specific concentrations. *Psychol. Rep.*, 1962, 10 (2), 487-490.—"Three groups of nine rats each . . . raised from birth with different concentrations [.00%, .45%, or .90%] of sodium chloride solution as their only drinking water . . . were tested at maturity by making all three concentrations available in an ad libitum choice situation. For all three groups, the daily amount of each test solution ingested . . . was an increasing function of the concentration . . . [but] the relative amount of each solution ingested varied from group to group. Ss drank very little of solutions lower in concentration than that on which they were raised. The obtained significant interaction between amount of each test solution ingested and the concentration on which S was raised can be interpreted as demonstrating a modification of the rat's gradient of saline intake through learning."—*B. J. House.*

2715. Webb, Wilse B., & Agnew, Harman W. (U. Florida) Sleep deprivation, age, and exhaustion time in the rat. *Science*, 1962, 136 (Whole No. 3522) 1122.—Male rats were maintained on a constantly moving wheel in a study of prolonged sleep deprivation. The results obtained revealed a striking negative relationship between age and resistance to exhaustion.—*Journal abstract.*

SENSORY PROCESSES

2716. Bonaventure, Nicole. (Faculté Sciences, Strasbourg, France) Sensibilité spectrale et vision des couleurs chez le chat. [Spectral sensitivity and color vision in the cat.] *Psychol. Franc.*, 1962, 7 (1), 75-82.—The primary purpose of this study was to investigate the possibility of a Purkinje effect in cats using a jumping-type discrimination apparatus. The result, on 2 cats, was negative; the maximum spectral sensitivity in a photopic environment was about 490

mμ. In other problems the cats showed a chromatic sensitivity to red and only to red. These data were considered to be consistent with those obtained with other nocturnal animals.—*C. J. Adkins.*

2717. Elliott, D. N., Frazier, L., & Riach, W. (Henry Ford Hosp.) A tracking procedure for determining the cat's frequency discrimination. *J. exp. Anal. Behav.*, 1962, 5 (3), 323-328.—Cats were reinforced with food only when a steady tone was present and the animal pressed the correct one of 2 bars present. After reinforcement, the steady tone changed to a frequency-modulated signal, but by pressing the other bar the tone could be changed back to its steady state and the reinforcement obtained as before. This procedure requires a longer training period before one can actually begin to obtain threshold determinations than the more commonly used avoidance conditioning procedures. However, the procedure reduces the number of animals developing experimental neurosis.—*J. Arbit.*

2718. Olson, Gary, & King, Richard A. (U. North Carolina) Supplementary report: Stimulus generalization gradients along a luminosity continuum. *J. exp. Psychol.*, 1962, 63 (4), 414-415.—A previous study had found relatively flat luminosity generalization gradients in pigeons. The present study, also using pigeons, confirmed that finding at each of 4 levels of training. The finding of higher rates of responding at the lower luminosities also confirms a previous finding and is opposed to the stimulus-intensity-dynamism construct of Hull.—*J. Arbit.*

2719. Tevzadze, V. G. (Baratashvili Pedagogical Inst., Gori, USSR) O differentsirovani intensivnosti i dlitel'nosti labirintnykh razdrazhenii. [Intensity and duration discrimination of labyrinthine stimulation.] *Zh. vyssh. nervn. Deiatel.*, 1961, 11 (6), 1099-1105.—Ss were 2 dogs placed into a swinging box, invented by Khechinashvili, and taught to discriminate between number and duration of swings. The method of alimentary CR was used. It was established that Ss were able to discriminate between labyrinthine stimulations of different intensities and durations.—*A. Cuk.*

LEARNING

2720. Bitterman, M. E. (Bryn Mawr Coll.) Techniques for the study of learning in animals: Analysis and classification. *Psychol. Bull.*, 1962, 59 (2), 81-93.—Present classifications of techniques for the study of animal learning are inadequate. The proposed classification is developed in terms of the functional significance of differences in technique. Thus 2 techniques differ if they yield results which differ in some fundamental respect but may be considered interchangeable if they produce similar results. The 3 major classifications are: Thorndikian Situations, Pavlovian Situations, and Avoidance Situations. Each major classification is subdivided to account for techniques appropriate to the specific situation.—*W. J. Meyer.*

2721. Botwinick, J., Brinley, J. F., & Robbin, J. S. (National Inst. Mental Health) Learning a position discrimination and position reversals by Sprague-Dawley rats of different ages. *J. Gerontol.*, 1962, 17, 315-319.—"Female albino Sprague-Dawley rat Ss in 3 age groups were compared with respect to learning a position response in a single unit Y-maze, learning to reverse the position response,

and the subsequent reversing of the positions." In one experiment, Ss aged approximately 2 yrs. were statistically poorer than Ss aged approximately 10 mos., and Ss aged 3-4 mos. in both the 1st and 2nd reversal tasks, but not in original position learning, or in the 3rd and 4th reversal tasks. In a 2nd experiment, conditions were changed, and no reliable age differences were found.—*J. Botwinick.*

2722. Kardos, Lajos. (U. Budapest) *Tanulás és emberrelválás.* [Learning and anthropogenesis.] *Pszichol. Tanulmányok*, 1958, 1, 41-56.—Analysis of animal maze experiments suggests that a different kinesthetic stimulus does not help the animal to change direction at the same point of the maze and that a different kinesthetic stimulus does not interfere with the learned right choice at any particular point of the maze. Based on his experiments, the writer established the following law: "The law of the approximate equivalence of equiterminal kinesthetic stimulus-variations." Movements which take the animal from the same starting point to the same goal are called equiterminal. The process of anthropogenesis in regard to spatial orientation concludes the paper. (Russian & English summaries)—*E. Friedman.*

2723. Márton, Magda, & Bakay, Éva. (Hungarian Acad. Science) *Fehérpatkányok viselkedésének mennyiségi igazodása egymástól kvantitatív eltérő helyzetekhez a helyzetek sorozatbaágazása esetén az erőadakolási nívó.* [Quantitative adjustment of the behavior of white rats in a series of quantitatively different situations.] *Pszichol. Tanulmányok*, 1958, 1, 127-131.—Experiments during which rats had to leap across a gap with a systematically varying width of 20-40 cm. showed that the length of the leap depended on both the immediate and the preceding task. "The greater the divergence between the effort needed to accomplish the actual task and that needed to accomplish the previous one, the greater the possibility of error and danger quality of the situation. . . . Identical situations, identical both as to need and requirement, evoked different reactions as to achievement and emotional significance depending on the level of effort produced by anterior behavior." (Russian & English summaries)—*E. Friedman.*

2724. Pubols, Benjamin H., Jr. (U. Wisconsin) *Serial reversal learning as a function of the number of trials per reversal.* *J. comp. physiol. Psychol.*, 1962, 55(1), 66-68.—Rats received a total of 410 trials in a Y maze in a position reversal problem. 3 groups were formed, receiving 10, 20, or 40 trials per reversal. The greater the number of trials per reversal, the greater the rate of interreversal learning. However, in terms of total numbers of trials, greater efficiency of performance was achieved with a smaller number of trials per reversal.—*W. A. Wilson, Jr.*

2725. Rice, George E., & Gainer, Priscilla. (Agnes Scott Coll.) *"Altruism" in the albino rat.* *J. comp. physiol. Psychol.*, 1962, 55(1), 123-125.—Rats were confronted with either a squealing rat or a plastic block suspended in a harness. A bar press lowered the stimulus rat (or the block) to the floor. The "distressed" rat was lowered more often than the block, by naive Ss, as well as by Ss that had previously learned (with subsequent extinction) to press the bar to avoid shock.—*W. A. Wilson, Jr.*

2726. Schneirla, T. C. (American Museum Natural History, NYC) *Psychological comparison of*

insect and mammal. *Psychol. Beit.*, 1962, 6(3-4), 509-520.—Comparable differences between worker formica ants and rats are found in the initial learning and in the relearning of a problem with a single choice-point at which competing difficulties and facile alternatives are encountered. Insects and mammals seem to differ markedly in their ability to organize and to reorganize behavior. (French & German summaries)—*H. J. Priester.*

2727. Van Sommers, Peter. (Harvard U.) *Oxygen-motivated behavior in the goldfish, Carassius auratus.* *Science*, 1962, 137 (Whole No. 3531), 678-679.—Goldfish placed in deoxygenated water learned to interrupt a light beam in order to obtain brief exposure to aerated water. The training procedure brought this behavior under the control of arbitrary visual stimuli.—*Journal abstract.*

2728. Wist, Eugene R. *The effect of training level at the time of delay introduction on runway performance.* *USA Med. Res. Lab. Rep.*, 1962, No. 543. 16 p.—Using a factorial design, Ss (rats) were delayed midway down a long runway for 0, 15, or 45 sec. after 0, 15, or 75 training trials without delay. All performance changes for delayed Ss were decremental with higher training level at the time of delay resulting in greater decrements in the runway just posterior to the point of delay. Recovery from the effects of delay occurred for all conditions in spite of continued delay. The results are discussed in terms of frustration-drive, delay of reinforcement, and novelty-reactions models.—*USA MRL.*

Conditioning

2729. Adrianov, O. S. (Inst. Brain, USSR Acad. Medical Sciences, Moscow) *O strukture uslovnykh refleksov na odnovremennyi kompleksnyi razdrazhitel'.* [Structure of conditioned reflexes obtained with a simultaneous complex stimulus.] *Zh. vyssh. nervn. Deiatel.*, 1961, 11(6), 1019-1025.—Motor alimentary conditioned responses were established in 4 dogs using stimuli made up of visual, auditory, and tactile components. The results are compared with conditioned reflexes obtained with simple stimuli. It was found that in the course of elaboration of a simple reflex involving a positive stimulus and an inhibitory stimulus the inhibitory process invariably exerts influence on the excitatory process and vice versa. In case of a systematic extinction of the components of a complex stimulus no inhibition takes place. Extinction of a single component of the complex does not substantially affect the dynamics of the other component.—*A. Cuk.*

2730. Caldwell, D. F., & Werboff, J. (Animal Behavior Lab., Lafayette Clinic) *Classical conditioning in newborn rats.* *Science*, 136 (Whole No. 3522), 1118-1119.—Newborn albino rats were trained according to classical conditioning procedure with 1 of 4 intervals between conditioned and unconditioned stimuli. A vibrotactile stimulus (conditioned stimulus) paired with an electric shock (unconditioned stimulus) was presented to the forelimb 80 times. The results demonstrate that conditioning takes place in newborn rats. However, levels of performance as a function of time intervals between stimuli did not resemble the levels traditionally reported for older animals.—*Journal abstract.*

2731. Gormezano, I., Schneiderman, Neil; Deaux, Edward, & Fuentes, Isreal. (Indiana U.)

Nictitating membrane: Classical conditioning and extinction in the albino rabbit. *Science*, 1962, 138 (Whole No. 3536), 33-34.—The distribution of response latencies and the percentage performance curve of a classical conditioning group, by comparison with a control group, indicated that the extension of the nictitating membrane elicited by a puff of air to the cornea was successfully conditioned to a previously neutral stimulus.—*Journal abstract*.

2732. Guseva, E. G. (Pavlov Inst. Physiology, USSR Acad. Sciences) **Predel vyrabotannogo tormoznogo protsessa u sobak raznogo tipa nervnoi sistemy.** [Limit of inhibitory processes elaborated in dogs of different types of nervous system.] *Zh. vyssh. nervn. Deiatel.*, 1961, 11(6), 1074-1082.—The limit of cortical inhibition in 6 dogs was investigated using differential inhibition in which the intensity of the CS (tone) was gradually increased. The limit varies with the type of nervous system: in dogs of the strong type it is higher than in the dogs of the intermediate type. When the limit of the inhibitory process is exceeded, dogs fall into a neurotic state.—*A. Cuk*.

2733. Khametov, B. G. (Bashkir State U., Ufa, USSR) **K voprosu o peredelke uslovykh refleksov na vremia.** [Transformation of CR using time as CS.] *Zh. vyssh. nervn. Deiatel.*, 1961, 11(6), 1106-1111.—Ss were 3 rabbits. A previously elaborated CR to a complex stimulus was transformed from a 4 minute interval to intervals of 6, 10, 12, 17, and 21 minutes. A definite similarity was found between the transformation of a CR to time and the elaboration of a new CR or a restoration of an old one. The transformation has its own difficulties. One consists in the fact that Ss tend to react to previously elaborated intervals. There seems to be one law which governs the establishment of new reflexes, restoration of old ones, and the transformation of a CR to a time response.—*A. Cuk*.

2734. Kohler, Ivo. (Inst. Experimentelle Psychologie, Innsbruck) **Pavlov and his dog. I. genet. Psychol.**, 1962, 100(2), 331-335.—A delay circuit is presented which serves as an "artificial Pavlovian Dog." A condenser is charged during the initial pairings of the closing of 2 keys such that a "conditioned response" may be subsequently elicited by presenting the "conditioned stimulus" alone. The model is useful in demonstrating that learning of this kind can be mechanically imitated, and does not require the mind.—*Author abstract*.

2735. Movchan, N. P. (Inst. Physiology I. P. Pavlov, Acad. Science, USSR) **K voprosu o razviti zapredel'nogo tromozheniya.** [On the problem of the development of supraliminal inhibition.] *Dokl. Akad. Nauk SSSR*, 1962, 142(1), 245-248.—A report of the development of inhibition of conditioned responses in 3 dogs. UCS was a light pin prick of one front paw. UCR consist of flexing of paw. CS's were a 55 db metronome at a rate of 120/min., a 2000 cps tone at 65 db and at 45 db intensity. CS-UCS interval was 10 secs. Intertrial interval was 3 min. After a stable CR was established to the various CS, inhibition was built up by presenting CS continuously for a long period of time without reinforcement, by increasing intensity of CS to 125 db, and by alternating trials of a normal CS and a high intensity CS. In these cases the CR at first was as strong or stronger than usual but then quickly was reduced in size and in some cases completely disap-

peared. Spontaneous recovery occurred after a rest period of a day and often after the presentation of a weak CS in a series of intense CS's.—*H. Pick*.

2736. Nevelichuk, V. V. (Lvov Medical Inst.) **Vlijanie izoverina na uslovnorefleksornuju iejatel'nost' delorih kroris.** [The effect of isoverin on the conditioned reflex activity in white rats.] *Farmakol. Toksikol.*, 1962, 25(1), 16-19.

2737. Salzinger, Kurt, & Waller, Marcus B. (Columbia U.) **The operant control of vocalization in the dog.** *J. exp. Anal. Behav.*, 1962, 5(3), 383-389.—Control over the vocal responses of 3 dogs was established using operant-conditioning procedures. The advisability of applying the terms operant and respondent to unconditioned behavior and, particularly, to unconditioned verbal behavior was discussed.—*J. Arbit*.

2738. Schneiderman, Neil; Fuentes, Israel, & Gormezano, I. (Indiana U.) **Acquisition and extinction of the classically conditioned eyelid response in the albino rabbit.** *Science*, 1962, 136 (Whole No. 3516), 650-652.—Comparisons of the performance curve of a classical conditioning group with the curves of control groups provided unequivocal evidence that elicitation of eyelid responses to the conditioned stimulus was acquired by associations formed between the conditioned stimulus and the unconditioned stimulus.—*Journal abstract*.

2739. Subbota, A. G. (Kirov Military Medical Acad., Leningrad) **O fiziologicheskoi roli skorosti narastaniia intensivnosti uslovykh razdrzhitel'ei.** [The physiological role of the rate of increase of CS.] *Zh. vyssh. nervn. Deiatel.*, 1961, 11(6), 1059-1064.—Salivary reflex to light and sound was established in 8 dogs. 2 types of rate of increase of stimuli were used, a rapid and a gradual one. The CR to the 1st type of stimuli was weaker than that to the 2nd type. The less pronounced response to a rapidly increasing stimulus is due to an inhibition and occurs usually at the beginning on the conditioning process.—*A. Cuk*.

2740. Ulianov, M. IU., & Kobiakov, N. M. (Gor'kii Medical Inst., USSR) **Programmnoe elektronnoe ustroistvo dlia avtomatizatsii opytov po vyrabotke vremennykh svyazei.** [Programmed electronic device for automatization of experiments with conditioning.] *Zh. vyssh. nervn. Deiatel.*, 1961, 11(6), 1134-1136.—Diagram and technical description of an apparatus which makes possible the automatization of CR experiments with animals. The device was used by the authors and gave good results.—*A. Cuk*.

2741. Vasil'eva (Barsukova), Z. A. (Inst. Experimental Medicine, USSR Acad. Medical Sciences, Leningrad) **Vlianie rezkogo usileniia polozhitel'nogo i tormoznogo uslovnogo razdrzhitel'ei na vysshuii nervnuii deiatel'nost' sobak.** [Effect of sharply increased positive and inhibitory CS on the higher nervous activity of dogs.] *Zh. vyssh. nervn. Deiatel.*, 1961, 11(6), 1032-1037.—By means of the Pavlovian method a food CR was established in one dog using light and sound as CS. It was shown that by intensifying an auditory CS a considerable change is produced in the higher nervous activity of dogs. No such change takes place when an inhibitory stimulus is increased. The changes refer to disinhibition of differentiating responses, to decrease in positive CR, and to the onset of sleepiness.—*A. Cuk*.

Discrimination

2742. Honig, Werner K., & Day, Roberta W. (Denison U.) Discrimination and generalization on a dimension of stimulus difference. *Science*, 1962, 138 (Whole No. 3536), 29-31.—4 pigeons were trained to peck at 1 key when 2 identical stimuli were displayed, and at another key when the stimuli were displayed with a wavelength difference of 40 $m\mu$. With stimulus combinations ranging in difference from 0 to 70 $m\mu$ in a generalization test, key preference was a function of the degree of difference between the stimuli.—*Journal abstract*.

2743. Kiriazis, Charles. (Boston U.) Discrimination following various conditions of nondifferential training. *Dissert. Abstr.*, 1961, 22(4), 1264.—*Abstract*.

2744. Libaw, Frieda Bornston. (U. Southern California) The effects of prior part-experiences on visual form perception in the albino rat. *Dissert. Abstr.*, 1961, 22(5), 1724.—*Abstract*.

2745. Riopelle, A. J., Chronholm, J. N., & Addison, R. G. (Yerkes Lab. Primate Biology) Stimulus familiarity and multiple discrimination learning. *J. comp. physiol. Psychol.*, 1962, 55(2), 274-278.—3 groups of monkeys received 10 discrimination problems per day for 60 days; for all groups, 6 of the problems had a stimulus that recurred daily. The Ss quickly learned the reward value of the recurrent stimuli when they were always rewarded (as for 1 group), or never rewarded (as for a 2nd group); the effects of the differential treatment generalized to the daily problems with new stimuli. For the 3rd group, the recurrent stimuli were sometimes rewarded and sometimes not; these animals developed a preference for the familiar stimuli. This last group was most efficient on subsequent discrimination reversal performance.—*W. A. Wilson, Jr.*

2746. Russell, Ian Steele. (Indiana U.) Analysis of responding during operant discrimination. *Dissert. Abstr.*, 1961, 22(6), 2065.—*Abstract*.

2747. Schusterman, Ronald J. (Emory U.) Transfer effects of successive discrimination-reversal training in chimpanzees. *Science*, 1962, 137 (Whole No. 3528), 422-423.—Chimpanzees receiving successive discrimination-reversal training on a single pair of stimuli transferred almost perfectly to 2 additional reversal tasks and to a "learning-set" series of 180 discrimination problems. A "win-stay, lose-shift" strategy, however it is acquired, seems to be a sufficient basis for 1-trial discrimination learning.—*Journal abstract*.

2748. Warren, J. M., & Warren, Helen B. (Pennsylvania State U.) Reversal learning by horse and raccoon. *J. genet. Psychol.*, 1962, 100(2), 215-220.—A raccoon and 2 horses were tested on serial reversals of a positional discrimination. A rapid decline in the number of errors made on consecutive reversals was observed in all 3 animals. Improvement in the rate of interreversal learning on simple discriminations does not correlate with taxonomic status or ability to solve more complex problems within the series of mammals studied. However, all mammals tested on this task "learn to learn," but fish and invertebrates do not.—*Author abstract*.

2749. Yagi, Ben. (U. Tokyo) The effect of motivating conditions on the estimation of time in rats. *Jap. J. Psychol.*, 1962, 33(1), 8-24.—An in-

vestigation of the influence of various conditions of food deprivation in combination with varying times in a detention compartment on the rat's ability to estimate time spent in the detention compartment after having been trained to discriminate right and left turning responses as a function of time interval. In general, changes in conditions of motivation did affect estimation of time so that time was estimated to be longer under conditions of deprivation.—*A. Barclay*.

Avoidance

2750. Berryman, Robert. (Columbia U.) A technique for the experimental analysis of conflict. *Psychol. Rep.*, 1962, 10(2), 423-426.—"An analytic description is given of the acquisition and stable state performance of albino rats in a continuous double approach-avoidance conflict situation. Responding on one lever produced regular water reinforcement and a shock which increased step-wise with each response; a response on a second lever reset the shock to its initial value."—*B. J. House*.

2751. Elder, Thomas. (Tulane U., School of Medicine) Correlation of two measures of the strength of an approach-avoidance conflict. *Psychol. Rep.*, 1962, 10(2), 510.—For 38 rats on a runway problem, number of trials required to recover the approach component of a previously acquired approach-avoidance conflict correlated $-.50$ with mean distance traveled down the runway on successive trials during the recovery series, as predicted by Miller's approach-avoidance conflict model.—*B. J. House*.

2752. Evans, Wayne O. (USA Medical Research Lab., Fort Knox, Ky.) Producing either positive or negative tendencies to a stimulus associated with shock. *J. exp. Anal. Behav.*, 1962, 5(3), 335-337.—"A technique is described in which rats are pretrained with reinforcement to bar press. Each bar press was associated with a tone. This tone was later paired with one of two aspects of an electric shock, either at the onset or at the end of the shock, in a situation in which the shock is inescapable. These animals were retested in the operant situation under conditions of extinction, but with tone present as a conditioned reinforcer. The finding was that animals for which the tone was associated with shock onset extinguished quickly, whereas animals for which the tone was paired with shock termination extinguished more slowly."—*J. Arbit*.

2753. Flakus, Walter Joseph. (U. Buffalo) The acquisition of two different shock-avoidance responses to two different initially neutral stimuli. *Dissert. Abstr.*, 1961, 22(4), 1263.—*Abstract*.

2754. Fromer, Robert. (Yale U.) The effect of several shock patterns on the acquisition of the secondary drive of fear. *J. comp. physiol. Psychol.*, 1962, 55(1), 142-144.—Rats were exposed to inescapable shock, and then tested for fear of the compartment in which they had been shocked. Groups of animals received different patterns of shock, and less fear was seen when the shock stimulus had had a gradual onset than when it had had a sudden onset. The results "are compatible with explanation of the failure to produce a secondary drive based upon hunger in terms of the gradual onset of hunger."—*W. A. Wilson, Jr.*

2755. Hoffeld, Donald R. (Louisiana State U.) Primary stimulus generalization and secondary ex-

tion as a function of strength of conditioning. *J. comp. physiol. Psychol.*, 1962, 55(1), 27-31.—Cats were trained to turn a wheel to a 250 cps tone in order to avoid shock. Groups varied in strength of conditioning, and in the nature of the generalization and extinction procedures used. Relative generalization (to 500 or 2000 cps) decreased with the strength of conditioning. Secondary extinction occurred when animals were 1st extinguished on a generalization tone, but relative secondary extinction did not vary with strength of conditioning or the difference of the generalization tone from the original tone, contrary to the Hullian model of conditioned inhibition.—*W. A. Wilson, Jr.*

2756. Howard, Thomas C. (U. Tulsa) Conditioned temperature drive in rats. *Psychol. Rep.*, 1962, 10(2), 371-373.—"Three groups of animals [of 10 each] were trained to escape from a cold box through a vertical hole to room temperature. Animals trained at 20° escaped more rapidly than animals trained at 40°, and both groups escaped more rapidly than animals trained at 75°. During testing, all animals were placed in a box at 75° and allowed to escape. The 20° animals escaped most rapidly, followed by the 40° animals, and finally the 75° animals. The difference between the groups were significant and presumably demonstrate that the temperature drive can be externalized in a fashion analogous to fear."—*B. J. House.*

2757. Hunter, George Fred. (U. Pennsylvania) The discriminative and secondary reinforcing functions of a stimulus associated with shock termination. *Dissert. Abstr.*, 1961, 22(4), 1264.—*Abstract.*

2758. King, John A. (Jackson Memorial Lab.) Swimming and reaction to electric shock in two subspecies of deer mice (*Peromyscus maniculatus*) during development. *Anim. Behav.*, 1961, 9(3-4), 142-150.—A total of 320 *P. m. gracilis* and *P. m. bairdii* were studied in longitudinal and cross-sectional groups. At 12-22 days *gracilis* were slower to escape from water than *bairdii* but later performed like them. *Bairdii* escaped from a charged grid to a safe corner for longer periods than *gracilis*. With experience, *bairdii* performance improved but *gracilis* did not. Data are discussed in terms of genetic, maturational, and learning effects.—*W. J. Coppock.*

2759. Kirby, Raymond Hope. (Princeton U.) Acquisition, extinction, and retention of an avoidance response in rats as a function of age. *Dissert. Abstr.*, 1961, 22(6), 2080.—*Abstract.*

2760. Myers, Arlo K. (U. California, Riverside) Effects of CS intensity and quality in avoidance conditioning. *J. comp. physiol. Psychol.*, 1962, 55(1), 57-61.—Groups of rats were trained in a wheel-turning shock-avoidance task and a pseudoconditioning control situation with CSs of different intensities of tone and buzzer. Both buzzer intensities (65 and 85 db.) produced more conditioned responses than any tone intensity (60, 80, and 100 db.). Pseudoconditioning was produced in groups receiving the buzzer, but not in a tone pseudoconditioning group. The behavior of the buzzer conditioning groups is presumably partially, but not wholly, explicable on the basis of pseudoconditioning.—*W. A. Wilson, Jr.*

2761. Noblin, Charles D., & Maher, Brendan A. (Louisiana State U.) Temporal and physical fac-

tors in avoidance reduction. *J. comp. physiol. Psychol.*, 1962, 55(1), 62-65.—Extinction of the avoidance component of an approach-avoidance conflict was attained more rapidly in a group of rats that started extinction training on an average of 9 days after acquisition than in a group extinguished immediately after training. Animals that were run to extinction in the same alley as that of original conflict training required no more trials than animals run first to extinction in a different alley. It is suggested that time-related variables may have confounded previous displacement studies.—*W. A. Wilson, Jr.*

2762. Wallgren, Henrik, & Savolainen, Sinikka. (Research Lab., State Alcohol Monopoly, Helsinki, Finland) Modification of shuttle box to improve rate of avoidance learning in rats. *Scand. J. Psychol.*, 1962, 3(2), 78-80.—Acquisition by rats of a conditioned avoidance response seems to be retarded in an ordinary shuttle-box by the necessity to reenter the compartment where shocks have previously been received. To avoid this, a 4-compartment box was introduced in which the animals can proceed in 1 direction. Rats were given either continuous trials until 9 avoidance responses were made during 10 consecutive trials, or 30 trials per day until 27 correct responses were made during 1 session. With both methods of training, the rate of learning was approximately 40% more rapid in the 4-compartment box than in the ordinary shuttle-box.—*Journal abstract.*

2763. Weissman, Albert (Charles Pfizer) Non-discriminated avoidance behavior in a large sample of rats. *Psychol. Rep.*, 1962, 10(2), 591-600.—"Stable nondiscriminated avoidance behavior was studied in a sample of 32 rats. Marked intrasubject stability and intersubject variability arose in several measures of avoidance behavior. Frequency distributions of mean response and shock rates were skewed to the right. . . . Inspection of cumulative response curves revealed clear qualitative differences between rats. The results point out the difficulty of choosing truly 'representative' Ss, and in generalizing from the data of small samples of rats trained on nondiscriminated avoidance."—*B. J. House.*

2764. Winograd, Eugene. (Indiana U.) Two parameters of escape behavior. *Dissert. Abstr.*, 1961, 22(5), 1728-1729.—*Abstract.*

Reinforcement

2765. Andronico, Michael P., & Forgays, Donald G. (Rutgers U.) Sensory stimulation and secondary reinforcement. *J. Psychol.*, 1962, 54(1), 209-219.—This experiment tested the hypothesis that so-called "neutral" cues employed in current studies of secondary reinforcement are not neutral but may be reinforcing in their own right. The results in general confirm the hypothesis and suggest a source of error which must be taken into account in such experimentation.—*Author abstract.*

2766. Appel, James B., & Hiss, Richard H. (Yale U.) The discrimination of contingent from noncontingent reinforcement. *J. comp. physiol. Psychol.*, 1962, 55(1), 37-39.—Responses of pigeons to a key were reinforced on an FI 4 min. schedule when the key was red; when it was white, response-independent reward was given every 4 min. Rates

indicated that discrimination between the conditions was possible, although the distribution of responses during the noncontingent condition was similar to that obtained during FI reinforcement.—*W. A. Wilson, Jr.*

2767. Capaldi, E. J. (U. Texas) **A comment on Wike's rejoinder.** *Psychol. Rep.*, 1962, 10(2), 482.—Further discussion (see 37: 2787) of a study on partial and delayed reinforcement.—*B. J. House.*

2768. Davenport, John W. (Amherst Coll.) **The interaction of magnitude and delay of reinforcement in spatial discrimination.** *J. comp. physiol. Psychol.*, 1962, 55(2), 267-273.—Rats were given choices between 2 pellets at a 1-sec. delay of reinforcement, and a larger amount of reward with a longer delay. 3 levels of magnitude and 6 levels of delay were used in a factorial design. From the measures of preference, conflict behavior, and speed, equal-reinforcement contours could be derived, "which indicated that a unit increase in delay can be balanced by a log unit increase in magnitude."—*W. A. Wilson, Jr.*

2769. Dews, P. B. (Harvard Medical School) **The effect of multiple S^A periods on responding on a fixed-interval schedule.** *J. exp. Anal. Behav.*, 1962, 5(3), 369.—"The effects of repeated interruption of FI responding by short S^A presentations on the pattern of increasing frequency of responding through the interval has been studied. Although the S^A profoundly changed the pattern of responding during their presentation, the general scalloped pattern of FI responding survived. The implication of these findings for understanding the role of chaining of responses in FI patterns is discussed. It is suggested that chaining is not a necessary condition for the scalloped pattern."—*J. Arbit.*

2770. Fozard, James Leonard. (Lehigh U.) **Acquisition and extinction of an instrumental running response under different intertrial intervals.** *Dissert. Abstr.*, 1961, 22(5), 1723.—*Abstract.*

2771. Greeno, James Gordon. (U. Minnesota) **Effects of nonreinforced trials in some two-choice learning experiments.** *Dissert. Abstr.*, 1961, 22(6), 2076-2077.—*Abstract.*

2772. Hanson, H. M., Campbell, E. H., & Witoslawski, J. J. (Merck Inst. Therapeutic Research, West Point, Pa.) **FI length and performance on an FI FR chain schedule of reinforcement.** *J. exp. Anal. Behav.*, 1962, 5(3), 331-333.—"In a chained FI FR schedule, manipulating the length of the FI component produced changes confined almost entirely to the FI performance; increasing the interval length increased the total number of responses emitted per reinforcement. The configuration of the fixed-interval scallop was clearly modified as the interval length was increased, with the larger intervals becoming flatter (i.e., a larger proportion of the total responses earlier in an interval). Measurement of the postreinforcement pause is suggested as a possible indicator of fixed-interval scalloping."—*J. Arbit.*

2773. Hurwitz, H. M. B. (Birkbeck Coll., London, England) **Frequency of reinforcement and preliminary training conditions as determinants of extinction.** *Psychol. Rec.*, 1961, 11, 395-403.—"The correlation of two variables, the number of reinforcements during preliminary training sessions and the number of reinforcements during lever-pressing

training sessions, with a measure of response-chain conditioning, was investigated. . . . Two responses were recorded (a) a lever-pressing response; (b) a tray-contact response. Preliminary training sessions consisted in reinforcing tray-contact responses only; lever-pressing training consisted in presenting the reinforcer after a lever press was followed by a tray response." Under extinction the relation between extinction score and frequency of reinforcement was influenced by the amount of preliminary reinforcement.—*R. J. Seidel.*

2774. Hurwitz, H. M. B. (Birkbeck Coll.) **Some properties of behaviour under fixed ratio and counting schedules.** *Brit. J. Psychol.*, 1962, 53(2), 167-173.—The effects on rate of response and on a measure of the sequential properties of the response array of 2 reinforcement schedules, specified in terms of 2 response classes, lever pressing and tray responding, were investigated. Observations were made under conditioning and extinction. Under both conditions animals (rats) trained by the counting procedure responded at a consistently higher rate but received fewer reinforcements. The results are discussed with reference to 2 maze-running procedures and to double alternation studies.—*Journal abstract.*

2775. Karsh, Eileen B. (Swarthmore Coll.) **Effects of number of rewarded trials and intensity of punishment on running speed.** *J. comp. physiol. Psychol.*, 1962, 55(1), 44-51.—In 3 experiments, rats were trained to run down an alley for food; on later trials both electric shock and food were delivered at the goal. Asymptotic running speed after shock was imposed, was a function of the intensity of the shock, and was not clearly affected by the number of food-alone training trials that had been given. The effect of shock was always greatest on running speed near the goal, leading to gradients consistent with Miller's conflict theory.—*W. A. Wilson, Jr.*

2776. Keehn, J. D. (American U. Beirut, Lebanon) **The effect of post-stimulus conditions on the secondary reinforcing power of a stimulus.** *J. comp. physiol. Psychol.*, 1962, 55(1), 22-26.—A tone (S) was established as a secondary reinforcer for rats by making it the discriminative stimulus for a response (R_1) which was reinforced with water. When S was used as a secondary reinforcer for a new response (R_2), its effectiveness was greater when R_1 followed S (R_2 -S- R_1) than when a new response was required after S (R_2 -S- R_x). It was suggested that "secondary reinforcers facilitate performance rather than strengthen associations."—*W. A. Wilson, Jr.*

2777. Logan, Frank A., & Gonzalez, Louis M. (Yale U.) **Supplementary report: Shift from non-reward to negatively correlated reward.** *J. exp. Psychol.*, 1962, 63(4), 416.—An earlier study found that rats that had first run with reward uncorrelated with speed learned to run slowly, as easily as naive rats, when reward was forthcoming only if they took longer than a specified time to run the alley. Rats that had been run without reward seemed to have unusual difficulty in adjusting to such a condition. The present study, using speed of running an alley, found that the experience of nonreward does not affect adjustment to conditions of negatively correlated reward.—*J. Arbit.*

2778. Pubols, Benjamin H., Jr. (U. Wisconsin) **Constant versus variable delay of reinforcement.**

J. comp. physiol. Psychol., 1962, 55(1), 52-56.—Rats were run in a Y maze; responses to one side were followed by food after a constant d sec. of delay, while responses to the other side were rewarded after delays of either 0 or 2d sec., presented in a random sequence. A preference for the variable-delay side developed, and developed more rapidly the larger the value of d, confirming predictions which were derived from the assumption of a negatively accelerated gradient of reinforcement.—*W. A. Wilson, Jr.*

2779. Revusky, Samuel Herman. (Indiana U.) Some effects of hunger and frequency of reinforcement on timing. *Dissert. Abstr.*, 1961, 22(6), 2091.—*Abstract.*

2780. Ross, Leonard. (U. Wisconsin) The effect of equal reinforcement of the positive and negative discriminanda of a learned discrimination. *J. comp. physiol. Psychol.*, 1962, 55(2), 260-266.—Rats were trained on a black-white discrimination, and then received a long series of forced trials, $\frac{1}{2}$ to black and $\frac{1}{2}$ to white. On forced trials, both discriminanda received 100% reinforcement (1 experiment) or 50% random reinforcement (another experiment). After this training, the rats were trained on the original problem or its reverse. Speed and error measures indicated that the original discrimination was retained over the equal-reinforcement interval in both experiments.—*W. A. Wilson, Jr.*

2781. Schrier, Allan M. (Brown U.) Response latency of monkeys as a function of reward amount and trials within test days. *Psychol. Rep.*, 1962, 10(2), 439-444.—In 3 experiments (N=34) monkeys were trained to displace a single object for food reward. In each experiment, response latency was shorter for a group rewarded with 8 pellets than with 1 pellet, but a statistically significant difference was found only when the ratio was raised to 32:1 for the 2nd phase of one experiment. "A progressive increase in response latency within test days was obtained in the experiment in which the inter-trial interval was 30 sec., but not in the two in which the interval was 1 min. An initial warm-up effect within days, reported in earlier studies, was obtained, but tended to diminish as training progressed."—*B. J. House.*

2782. Segal, Evalyn F. (San Diego State Coll.) Prolonged extinction following one session of food-reinforced conditioning: A methodological note. *J. comp. physiol. Psychol.*, 1962, 55(1), 40-43.—"Number of bar presses [by rats] during 30 operant-level sessions was compared with the number during 30 extinction sessions, following a single light-reinforcement test and one session of food-reinforced conditioning, at two deprivation levels. Two of three measures of group responding remained above operant levels throughout extinction sessions."—*W. A. Wilson, Jr.*

2783. Siegal, Phillip Gerald. (New York U.) The effect of varying acquisition trials and extinction trials on the relearning of a maze habit. *Dissert. Abstr.*, 1961, 22(5), 927.—*Abstract.*

2784. Stebbins, William C. (Hamilton Coll.) Response latency as a function of amount of reinforcement. *J. exp. Anal. Behav.*, 1962, 5(3), 305-307.—"Food-deprived rats were trained to press and hold down a telegraph key in the presence of a

light. Subsequent release of the key during a tone was followed by 0.15 ml of a 20-percent sucrose solution as reinforcement. The Ss were subsequently shifted to a 0-percent and to a 5-percent solution from the 20-percent base line. The median RT and the variability of RT increased markedly as a result of the shift to the lower sucrose concentrations. For all Ss, the change in median and variability was greater for the shift to the 0-percent solution than for the shift to the 5-percent solution. It is probable that median RT and variability of RT are inversely related to amount of reinforcement."—*J. Arbit.*

2785. Stebbins, William C., & Lanson, Robert N. (Hamilton Coll.) Response latency as a function of reinforcement schedule. *J. exp. Anal. Behav.*, 1962, 5(3), 299-304.—"Four Ss [rats] were trained to press and hold down a telegraph key in the presence of a light. Subsequent release of the key during a tone was followed by water reinforcement. The schedule of reinforcement for key release was varied, and its effects on the latency (RT) of key release to the tone were studied. Both median RT and variability of RT were found to be inversely related to frequency of reinforcement as determined by the schedule."—*J. Arbit.*

2786. Symmes, David, & Leaton, Robert N. (Yale U.) Failure to observe reinforcing properties of sound onset in rats. *Psychol. Rep.*, 1962, 10(2), 458.—Operant conditioning procedures previously shown to produce learning with dim light onset as reinforcement were ineffective in training 33 rats with auditory stimulus (pure tone, white noise, or warbling tone at 70-db. or 50-db. human sensation level) as a reinforcement.—*B. J. House.*

2787. Wike, Edward L. (U. Kansas) On partial and delayed reinforcement: A rejoinder. *Psychol. Rep.*, 1962, 10(2), 481.—A consideration of comments by Capaldi (see 37: 432) in answer to previous criticisms by Wike (see *Psychol. Rep.*, 1961, 9, 456).—*B. J. House.*

2788. Wilson, J. J. (New York U. Medical Center) Photic reinforcement as a function of optimal level of stimulation. *Psychol. Rec.*, 1962, 12, 17-23.—In 4 experiments with rats of Sprague-Dawley strain in a double-lever situation the results showed a preference for pressing the bar which led to 3mL increase. This preference was independent of novelty and deprivation effects as well as initial condition of lighting in chamber (darkness or 3mL).—*R. J. Seidel.*

Motivation & Learning

2789. Crocetti, Carlo P. (Rome Air Development Cent.) Drive level and response strength in the bar-pressing apparatus. *Psychol. Rep.*, 1962, 10(2), 563-575.—72 rats were divided into 6 groups, equated on the basis of operant level responding after 22 hr. food deprivation. Each group was assigned to a different drive level: 1, 4, 7, 16, 22 hr. food deprivation or 22 hr. food plus 15 hr. water deprivation. All Ss had the following sequence of experimental operations: operant level determination at assigned drive, conditioning at 7 hr. food deprivation, 5 days extinction under assigned drive, and 3 days further extinction at 22 hr. food deprivation. Results showed extinction responding to be a linear function of drive measured by unconditioned rate of respond-

ing. This relationship was not affected by drive present during training nor by addition of an "irrelevant" drive. An increase in drive during extinction did not increase rate of responding beyond that of a control group extinguished throughout under the higher drive. Results were related to theories of Hull and Skinner.—*B. J. House.*

2790. Erlebacher, Albert. (U. Wisconsin) **Reversal learning in rats as a function of percentage reinforcement and degree of overlearning.** *Dissert. Abstr.* 1961, 22(6), 2075.—*Abstract.*

2791. Lana, Robert E. (Alfred U.) **Exploration phenomena and the drive-reduction hypothesis.** *J. gen. Psychol.*, 1962, 67, 101-104.—The conditions necessary for an examination of the drive-reduction hypothesis when exploratory phenomena are involved are enumerated, and the similarities between exploration and the appetitive drives noted. The author concludes that the operation of satiation of an animal with novel stimuli would have to be demonstrated for support of the drive-reduction hypothesis in this situation. Most current studies do not contain the test conditions to allow for this conclusion.—*Author abstract.*

2792. Loeb, Janice May. (U. Texas) **The role of taste stimulation in the prefeeding effect.** *Dissert. Abstr.*, 1961, 22(6), 2080-2081.—*Abstract.*

2793. Ramond, Charles Knight, II. (State U. Iowa) **Performance in selective learning as a function of hunger.** *Dissert. Abstr.*, 1961, 22(4), 1266.—*Abstract.*

2794. Thomas, David Rolf. (Duke U.) **Stimulus generalization and operant discrimination as a function of level of motivation.** *Dissert. Abstr.*, 1962, 22(12), 4419-4420.—*Abstract.*

2795. Walker, Edward L., & Motoyoshi, Ryoji. (U. Michigan) **The effects of amount of reward and distribution of practice on active and inactive memory traces.** *J. comp. physiol. Psychol.*, 1962, 55(1), 32-36.—A larger proportion of rats that received 8 pellets of food in a T-maze alternated than of rats that received 1 pellet. Subsequently all animals were given 2 learning trials per day. A Spaced Group received one trial per 12 hr.; a Massed Group had one pair of trials per day separated by a 30-sec. interval. The Massed Group alternated more, and analysis suggests that "most of the apparent loss in learning efficiency in the massed condition may be attributed to alternation rather than to slower accumulation of habit strength."—*W. A. Wilson, Jr.*

2796. Wehling, Hildegard E., & Prokasy, William F. (Pennsylvania State U.) **Role of food deprivation in the acquisition of the observing response.** *Psychol. Rep.*, 1962, 10(2), 399-407.—25 rats with either 12-hr. or 20-hr. food deprivation were run on a T maze with 50% food reinforcement on either arm. Entry into a black or white goal box was preceded by 20 sec. detention in a matching delay chamber. Black and white appeared equally often on the left and right. On the consistent side, food was always paired with a given brightness, while on the inconsistent side black and white were associated randomly with reward. The high drive group developed a significantly greater preference for the consistent side than did the low drive group. Results are discussed in relation to observing response theory.—*B. J. House.*

COMPLEX PROCESSES

2797. Behar, Isaac. **Evaluation of cues in learning set formation in mangabeys.** *USA Med. Res. Lab. Rep.*, 1962, No. 534. 9 p.—6 naive sooty mangabeys were given 300 serial object discrimination problems. 6 problems were presented daily of which 2 each lasted 4, 7, and 10 trials. Following the discrimination trials of each problem, a "critical trial" was given in which either the positive or the negative stimulus was paired with a neutral stimulus. Learning sets were established at about the same rate as that previously obtained in macaques, and showed the usual characteristics. Responses on the critical trials indicated the development of both approach and avoidance tendencies, although the former largely exceeded the latter. This difference was interpreted in terms of the disparate frequency of response to the positive and negative stimuli during the discrimination trials. In general, the sooty mangabey appears to be a very suitable S for behavioral research.—*USA MRL.*

2798. McDowell, A. A., Brown, W. Lynn, & McTee, A. C. (U. Texas) **Sex as a factor in delayed-response and reduced-cue discrimination learning by previously irradiated monkeys.** *J. genet. Psychol.*, 1962, 100(2), 325-329.—40 male and 24 female rhesus monkeys, ranging in age from 30 to 42 months, that had previously been exposed to varying dosages of nuclear radiation, were compared with respect to learning performance on delayed-response and reduced-cue discrimination tasks. Statistical analysis of the error data yielded the following results: (a) the female Ss improved performance significantly faster than did the male Ss on reduced-cue discrimination learning, and (b) Performance of the female Ss on delayed-response training was significantly superior to that of male Ss, although rate of improvement with practice did not differentiate the sexes.—*Author abstract.*

2799. Markova, A. YA. (Moscow, USSR) **Protssess elementarnoi abstraktsii u nizshikh obez'yan.** [Process of elementary abstraction in the lower apes.] *Vop. Psikhol.*, 1962, No. 1, 121-133.—In order to study the ability of rhesus monkeys to abstract cues a preference method was used. The preference in a 2 alternative choice situation was determined for 3 solid geometric forms: sphere, cube, and pyramid. Preference was then tested with 2 dimensional cutouts of the projections of these objects, with 2 dimensional plane drawings on a background, with outline drawings of the plane projections, and with dotted line outline drawings. In all cases the preferences displayed originally held up but degree of preference grew somewhat less as the stimuli got further away from the original objects. The preferences generally held up in spite of change of color or orientation.—*H. Pick.*

2800. Mason, William A., & Berkson, Gershon. (Yerkes Lab. Primate Biology, Orange Park, Fla.) **Conditions influencing vocal responsiveness of infant chimpanzees.** *Science*, 1962, 137(Whole No. 3524), 127-128.—Infant chimpanzees were tested to determine the effects on distress vocalizations (whimpering, screaming) of stimulus conditions approximating the physical relationship to the mother. Under such conditions spontaneous vocalizations were infrequent, and vocal responsiveness to a painful stimulus was substantially reduced.—*Journal abstract.*

2801. Shorey, H. H. (U. California, Riverside) **Nature of the sound produced by *Drosophila melanogaster* during courtship.** *Science*, 1962, 137 (Whole No. 3531), 677-678.—The wing vibrations of courting male *Drosophila melanogaster* Meigen produced pulsations of sound, with each pulse apparently caused by 1-2 cycles of wing movement. The average repetition rate at 25° C was 29.8 pulses per second. The rate was dependent on temperature, increasing at 1.4 pulses per additional degree Celsius.—*Journal abstract*.

SOCIAL BEHAVIOR

2802. Baron, Alan; Kish, George B., & Antonitis, Joseph J. (U. Maine) **Effects of early and late social isolation on aggregative behavior in the domestic chicken.** *J. genet. Psychol.*, 1962, 100 (2), 355-360.—A test of the hypothesis that aggregative behavior in domestic chickens may be acquired only during a critical period early in life and that such learning is not subject to the influences of subsequent social experiences. Groups of animals were reared for the first 10 weeks of life under 3 conditions: (a) in social contact with other chickens throughout, (b) in social contact with other chickens for the 1st week, and in social isolation for the next 9 weeks, and (c) in social isolation for the 1st week and in social contact for the next 9 weeks. Observations of the social reactivity of each S to a stimulus animal of the same age were conducted at 5 and 10 weeks of age. The results could not be interpreted as supporting the critical hypothesis. It was concluded that the effects of early isolation or social contact may be modified by later social experiences. Social isolation following an early period of social contact reduces the effects of early social contact. Social contact following an early period of social isolation reduces the effects of early social isolation after short periods of social contact but may magnify these effects after longer periods of social contact.—*Author abstract*.

2803. Eleftheriou, Basil, E., & Bronson, F. H. (Roscoe B. Jackson Memorial Lab., Bar Harbor, Me.) **Interaction of olfactory and other environmental stimuli on implantation in the deer mouse.** *Science*, 1962, 137 (Whole No. 3533), 764.—Recently inseminated female deer mice were exposed to changes in physical environment, including size of available space, newness of environment, and a stud or strange male in order to test the hypothesis that a strange male decreases the incidence of pregnancy in recently inseminated females (Bruce effect). The data confirm the Bruce effect but also indicate that changes in physical environment produced great effects on implantation in recently inseminated females.—*Journal abstract*.

2804. Guiton, Philip. (Edinburgh, Scotland) **The influence of imprinting on the agonistic and courtship responses of the brown leghorn cock.** *Anim. Behav.*, 1961, 9(3-4), 167-177.—Chicks were imprinted on Days 2 through 5 after hatching to 1 of 2 moving, clucking, models which had little resemblance to fowl. Other chicks were habituated to the test situation with or without the model when 6 weeks old. Trained birds tended to follow the models until 8-12 weeks old. The effect was less with age and less in birds imprinted in groups. Habituated birds did not follow. At 6 weeks imprinted birds begin to aggress against the models and showed sexual display.

2 birds continued to respond by "waltzing" to the training model up to 14 months but when given a choice they reacted to a stuffed bird rather than the model.—*W. J. Coppock*.

2805. Jensen, Gordon D., & Tolman, Charles W. (U. Washington) **Mother-infant relationship in the monkey, *Macaca nemestrina*: The effect of brief separation and mother-infant specificity.** *J. comp. physiol. Psychol.*, 1962, 55(1), 131-136.—Observation of 2 mother-child pairs of *Macaca nemestrina* led to the conclusions: "1. Infant-directed behavior of mothers appears to be generally own-infant-specific. 2. Infants are not absolutely mother-specific, but they learn to be so after repeated separation and interaction with a strange mother. 3. Separation serves to increase the infant-directed behavior of the mother toward her own infant and the mother-seeking behavior of the infant for an initial period after they are reunited."—*W. A. Wilson, Jr.*

2806. Leary, R. W., & Maroney, R. J. (U. Oregon) **The effect of home-cage environment on the social dominance of monkeys.** *J. comp. physiol. Psychol.*, 1962, 55(2), 256-259.—Adolescent monkeys were tested in pairs on dominance in food-getting in the Wisconsin General Test Apparatus (WGTA). Then 1 monkey was placed in the home cage of another for 48 hrs. Dominance testing in the home cage and the WGTA during this period showed an increase in relative dominance of the hosts. This change was often maintained in WGTA tests a week later.—*W. A. Wilson, Jr.*

2807. Miller, Robert E., & Banks, James H., Jr. (U. Pittsburgh) **The determination of social dominance in monkeys by a competitive avoidance method.** *J. comp. physiol. Psychol.*, 1962, 55(1), 137-141.—Rhesus monkeys learned to mount a perch large enough for only one animal in order to avoid shock, and then were tested in pairs. Dominance hierarchies thus obtained were very stable over long periods of time, being less subject than food-getting measures to variations due to momentary distraction or lack of motivation.—*W. A. Wilson, Jr.*

2808. Rosenblum, Leonard Allen. (U. Wisconsin) **The development of social behavior in the rhesus monkey.** *Dissert. Abstr.*, 1961, 22(3), 926.—*Abstract*.

ABNORMAL BEHAVIOR

2809. Calhoun, John B. **Population density and social pathology.** *Scient. American*, 1962, 206(2), 139-150.—When a population of laboratory rats is allowed to increase in a confined space, the rats develop acutely abnormal patterns of behavior that can even lead to the extinction of the population. In time, refinement of experimental procedures may advance our understanding to the point where they may contribute to the making of value judgments about analogous problems confronting the human species.—*L. A. Waack*.

2810. Rudenko, L. P. (Inst. Higher Nervous Activity, USSR Acad. Sciences) **K voprosu o voz-nikovenii "bol'nogo izolirovannogo punkta" v slukhovom analizatore sobaki.** [Origin of the "pathological isolated point" in the dog's auditory analyzer.] *Zh. vyssh. nervn. Deiatel.*, 1961, 11(6), 1094-1098.—An unsuccessful attempt was made to induce experimental neurosis in one dog of the strong unequilibrated type of nervous system. One year

after this experiment the animal started to manifest—against a background of physical deterioration—a weakening of the nervous system particularly in the acoustic area which had been acted upon previously by the pathological agent. Pathological weak points seem to exist in the cortex in a potential state and manifest themselves under conditions that are unfavorable to the organism without any additional pathological influences.—A. Cuk.

2811. Vavilova, N. M., Kliavina, G. A. Obraztsova, G. A., & Troshikhin, V. A. (Pavlov Inst. Physiology, USSR Acad. Sciences) O sootnoshenii tipologicheskikh svoistv vysshei nervnoi deiatel'nosti i techeniia patologicheskikh protsessov. [Relationship between typological properties of the higher nervous activity and the course of pathological processes.] *Zh. vyssh. nervn. Deiatel.*, 1961, 11(6), 1038-1043.—The purpose was to study the susceptibility to infection and cancer of 9 dogs who have been subjected to an experimental neurosis, and of 12 rabbits of different nervous types. Passive-defensive reactions to food were induced in all animals. Many relationships were established between the stability of such reaction, susceptibility to infection, and the course of a cancerogenous process, on the one hand, and the basic properties of the higher nervous activity, on the other.—A. Cuk.

2812. Vernadakis, Antonia. (U. Utah College Medicine) Spinal cord convulsions in developing rats. *Science*, 1962, 137(Whole No. 3529), 532.—Tonic hind-limb convulsions were elicited by electrical stimulation of the spinal cord. The flexor-extensor pattern characteristic of adult animals was observed in rats as young as 1 day old.—*Journal abstract*.

2813. Werboff, Jack, & Corcoran, John B. Audiogenic seizures and sensitivity to peripheral shock. *Psychol. Rep.*, 1962, 10(2), 523-526.—2 groups of 50 rats each, separated on the basis of susceptibility to audiogenic seizure, were trained to escape shock by jumping a barrier and then tested with varying shock levels. Seizure-prone rats showed emotional responses at lower shock levels than resistant rats, but the groups did not differ in escape training latency or escape threshold. Findings were related to previous studies showing that higher emotionality in seizure-prone rats can interfere with learning performance.—B. J. House.

DEVELOPMENTAL PSYCHOLOGY

2814. Ausubel, David P., & Fitzgerald, Donald. (U. Illinois) Meaningful learning and retention: Intrapersonal cognitive variables. *Rev. educ. Res.*, 1961, 31(5), 500-510.—"By cognitive structure is meant an individual's organization, stability, and clarity of knowledge in a particular subject-matter field relative to meaningful new learning tasks in this field. In the more general and long-term sense, cognitive structure variables refer to the influence of significant organizational properties of the learner's total knowledge in this subject-matter field on his future academic performance in the same area. In the more specific and short-term sense, cognitive structure variables refer to the effects of the organizational properties of just the immediately relevant concepts within a particular subject-matter field on the learning and retention of small units of related subject matter. The importance of cognitive struc-

ture variables has been generally underestimated in the past." (43 ref.)—F. Goldsmith.

2815. Baller, Warren R. (U. Nebraska) Readings in the psychology of human growth and development. New York: Holt, Rinehart & Winston, 1962. xiv, 689 p. \$4.75.—"This book of readings was planned to serve as a companion-piece to *The Psychology of Human Growth and Development* by Warren R. Baller and Don C. Charles" (see 36: 3FA32B). The papers have been organized into 4 major topic areas: "Orientation to the Study of Human Behavior and Development," "The Bio-social Foundations of Human Behavior," "Development and Adjustment," and "Personality and the School's Role in Its Development."—W. J. Meyer.

2816. Eichorn, Dorothy H., & Bayley, Nancy. (U. California, Berkeley) Growth in head circumference from birth through young adulthood. *Child Develpm.*, 1962, 33(2), 257-271.—"Longitudinal measurements of the head circumference of a group of healthy persons from birth through early adulthood are reported. The mean head circumference of males exceeds that of females at all ages. The rate of increase in head circumference is greater in males from birth through 15 months and in females from the second through the twelfth year. Increase in head circumference continues for a longer period in males, at least through 21 years, and possibly further into the third decade. The rate of deceleration in growth in head circumference is most marked during the first 6 months. The existence of an adolescent growth spurt in head circumference is strongly supported."—W. J. Meyer.

2817. McVarish, Donald. (U. California, Berkeley) Tables for computing decimal fractions of a year. *Child Develpm.*, 1962, 33(2), 477-480.—Tables are presented which give exact decimal equivalents of a year to 4 places between any 2 dates.—W. J. Meyer.

2818. Nemes, Livia. Az értelmi fejlődés és a gondolkodás Piaget műveiben. [The phases of mental development and thinking in Piaget's works.] *Pszichol. Tanulmányok*, 1958, 1, 27-37.—Piaget's investigation regarding the structure of thinking at each phase of its development is described. 3 criteria are considered as important in determining development: constant successive order, gradual integration, and structured ensembles. When examining the latter, Piaget finds 4 basic phases: the sensorimotoric, the preoperative, the operative, and the formal phase. Some of Piaget's experiments are described and their importance discussed. (Russian & English summaries)—E. Freidman.

2819. Vatsuro, E. G. (Inst. Evolutionary Physiology, AN SSSR, Leningrad) Orientirovochnyi i issledovatel'skii refleksy i razvitiie ikh v ontogeneze i filogeneze. [Orienting and investigatory reflexes and their development in ontogenesis and phylogenesis] *Vop. Psikh.*, 1962, No. 1, 113-120.—On the basis of his own and other investigators' data the author concludes that: (a) The orienting and investigatory reflexes are independent forms of reaction. (b) Genetically the orienting reflex is connected with the defense reflex, and the investigatory with the feeding reflex. (c) In ontogenesis and phylogenesis the investigatory reflex arises later than the orienting. (d) Distance receptors play a dominant role in the orienting reflex; contact receptors for the investiga-

tory. (e) The development of the investigatory reflex is characterized by a tendency towards prolongation and loss of direct utility. (f) The progressive development of the orienting reflex is characterized by increase of speed in its course and a shortening of its after effect. These conclusions are supported by a short history of the development of the concepts pointing out that Pavlov identified the 2 reflexes but later came to differentiate between them. In addition various experimental data are cited which, for example, show that the orienting reflex degenerates into a defuse reflex under the appropriate experimental conditions and in certain pathologies.—*H. Pick.*

INFANCY

2820. Caldwell, Bettye M. (State U. New York, Syracuse) **Assessment of infant personality.** *Merrill-Palmer. Quart.*, 1962, 8(2), 71-88.—With the current resurgence of research on infants, workers would do well to obtain representative samples, and to extend studies beyond the readily available neonate. Greater use of experimental, observational, and ecological methods should replace overdependence on interview data. Genuine adherence to a bio-social approach involves closer correspondence between theoretical positions and methodological choices. (45 ref.)—*E. L. Robinson.*

2821. Crowell, David H. (U. Hawaii, Honolulu) **Associations among anatomical and behavioral variables of full-term neonates.** *Child Developm.*, 1962, 33(2), 373-380.—A sample of 20 white females classified as clinically normal full-term births were measured, at birth, for body weight, body length, metacarpal length, and phalangeal stockiness. Behavioral measures included a sensorimotor scale, and a visual scale. Within the limitations of the sample it was concluded "that anatomical status of a full-term neonate has dubious value for selection or classificatory purposes relative to behavioral status at birth."—*W. J. Meyer.*

2822. Kiss, Tihamér. **Az örömrzés első megnyilvánulásai a gyermeknél.** [First manifestations of infant's pleasure.] *Pszichol. Tanulmányok*, 1958, 1, 85-93.—Direct observations and analysis of other investigators' data show that on the lowest level of biological development the infant's pleasure experiences are connected with food, homeostasis, and certain cutaneous stimuli. After this stage, conditioned reflexes develop. Movements and certain positions of the parents become conditioned stimuli. "Further development may be explained by the formation of 'dynamic stereotypes' (Pavlov) and other mental processes (e.g. apperception, memory, imagination) as well by the development of activity, and their organic connection with emotions." (Russian & English summaries)—*E. Friedman.*

2823. Kistyakovskaya, M. YU. (Inst. Pediatrics, A.M.N. S.S.S.R., Moscow) **Razvitie dvizhenii ruki u rebenka pervogo polugodiya zhizni.** [Development of hand and arm movements in children in the first six months of life.] *Vop. Psikh.*, 1962, No. 1, 89-100.—Observations of 8 children were systematically carried out twice a week from the 2nd week after birth to 6 months of age. All movements of each child and all stimuli impinging on him were recorded for the 1½ to 2½ hour observation periods. For more exact determination of the effect of visual reactions on movements of the hand the child was

placed in an isolated chamber which permitted presentation of visual stimuli, recording of (using motion pictures): general responses of the child, breathing rate, and specific hand movements. Several consecutive periods of development are noted in the general results presented. Up to 3-4 weeks isolated movements of the hands and arms almost never occur. From 3-4 weeks to 2½-3 months the development of hand movements occurs basically to visual and visual-auditory stimuli. From that time to 4½ months the regulating role of touch is increased and that of vision becomes more complex. From 4½ to 6 months vision acquires dominating significance in the development of hand and arm movements.—*H. Pick.*

2824. Richmond, J. B., Lipton, E. L., & Steinschneider, A. (State U. New York, Syracuse) **Autonomic function in the neonate: V. Individual homeostatic capacity in cardiac response.** *Psychosom. Med.*, 1962, 24(1), 66-74.—The capacity of infants to restore their cardiac rates to prestimulus levels was studied by means of a 5-sec. air stream to the abdominal wall of 16 female infants between 2 and 5 days of age. The infants differed in both extent and consistency of this capacity. These differences may be predictive of later physiological and psychological parameters of behavior.—*W. G. Shipman.*

2825. Schmitz, H. A. **Der Säugling: Ein soziales Wesen.** [The nursing: A social being.] *Acta paedopsychiat.*, Basel, 1962, 29(6), 172-178.—"Devoted turning-towards" is of vital importance and the consequences dire if not met. The conception "nest" as a symbol of security is based on false premises. The baby "signalizes" his needs. "Psychologizing fantasies" in infants is refuted.—*G. Rubin-Rabson.*

2826. Vassella, V., & Karlsson, B. (Stockholm, Sweden) **Asymmetric tonic neck reflex.** *Developm. Med. Child Neurol.*, 1962, 4(4), 363-369.—The relevant literature is reviewed. The question of the presence of tonic neck reflexes was studied under standardized conditions in a series of 108 healthy neonates. "Although asymmetric tonic neck reflex patterns were observed in 61 neonates, they could be regarded as true reflexes in only 9 neonates (8%)."—*T. E. Newland.*

2827. Walk, Richard D., & Dodge, Sue H. (George Washington U.) **Visual depth perception of a 10-month-old monocular human infant.** *Science*, 1962, 137(Whole No. 3529), 529-530.—A monocular infant tested on the "visual cliff" crawled over glass which had a patterned surface just beneath it and would not cross glass which had the same pattern 40 inches below its surface. Since this infant, using only monocular visual cues, was able to discriminate depth, the experiment disproves a general belief in the primacy of binocular cues in depth perception.—*Journal abstract.*

CHILDHOOD

2828. Binét, Agnes. (Hungarian Acad. Science) **Milyen tényezők torzítják el a társas kapcsolatokról való képzeteket és ítéleteket az ovodáskorban.** [Which factors distort ideas and judgments regarding social relations in nursery school children.] *Pszichol. Tanulmányok*, 1958, 1, 143-150.—In examining statements about social relations of nursery school children, 3 factors were found to be respon-

sible for distorting true judgments and ideas: (a) emotional loading, (b) conforming to opinions held or supposed to be held by adults, and (c) important events of the day. Emotional loading plays a more important role in statements about the children's own relations than in statements about other children. It was also concluded that "Children are usually more aware of the social relations of those who play an important part in class than of those considered not so important." (Russian & English summaries)—*E. Friedman.*

2829. Birch, H. G., Thomas, A., Chess, S., & Hertzog, M. E. (Albert Einstein Coll. Medicine) **Individuality in the development of children.** *Developm. Med. child Neurol.*, 1962, 4(4), 370-379.—"Stability" was found in the longitudinal study of 118 children (95 of whom have been studied during their 1st 2 years of life) in the "primary reaction characteristics" of (a) activity level, (b) rhythmicity, (c) approach or withdrawal, (d) adaptability, (e) intensity of reaction, (f) threshold of responsiveness, (g) quality of mood, (h) distractibility, and (i) attention span and persistence. Parents were found to be an "excellent source of information" under controlled interview.—*T. E. Newland.*

2830. Carney, R. E., & Trowbridge, N. (Drake U.) **Intelligence test performance of Indian children as a function of type of test and age.** *Percept. mot. Skills*, 1962, 14(3), 511-514.—The California Test of Mental Maturity (CMM) and the Goodenough Draw-a-man test (GDM) were administered to 36 Indian school children of 3 age ranges. No differences were found between the sexes. CMM language performance was low for the youngest children and approached the general norm with increasing age. CMM nonlanguage performance was high at the youngest age and also approached the norm at later ages. Initially, GDM scores were above the norm and then rose even higher in the older groups. This latter finding and the pattern of factor scores of the CMM indicated that the effect of acculturation in the school is not uniform, but depends on a narrowing of specific differences in experiences between the groups being compared.—*W. H. Guertin.*

2831. Denisova, Z. V. (Sechenov Inst. Evolutionary Physiology, USSR Acad. Sciences, Leningrad) **Deistvie ekstrazrazdrazhitel' na rechevye reaktsii rebenka.** [Effect of foreign stimuli on verbal reactions of children.] *Zh. vyssh. nervn. Deiatel.*, 1961, 11(6), 991-998.—Spontaneous and directed responses of a group of children (age 3 to 7) to drawing of geometrical figures were studied. Sound producing toys were introduced during the drawing as foreign stimuli and their effect on the children's reaction was investigated. It was established that these stimuli have both an inhibitory and disinhibitory effect on the verbal responses. The inhibition of verbal reactions in children of 3-4 years is often accompanied by disturbances of some other response. This does not occur with disinhibition. This is explained in terms of an extensive irradiation of the nervous processes as characteristic of preschool children.—*A. Cuk.*

2832. Fonzi, Ada. (U. Torino, Italy) **Problemi di psicologia infantile.** (2nd Ed.) [Problems of child psychology.] Torino, Italy: Paolo Boringhieri, 1960. viii, 247 p. L. 2500.—In discussing the current problems in child psychology the author presents

an analysis and evaluation of past studies adding a summary of her own research findings and conclusions over the following major problems: (a) influence of learning on the social behavior of the preschool age child; (b) the problem of imitation, development and prospects; (c) social relations of the 4 to 8 year olds; (d) concerning a stereotype of infancy; (e) the concept of beauty in infancy and childhood; (f) inquiry into factors influencing the psychical development in early infancy; (g) an experimental study of the reaction to frustration in culturally diverse groups; and (h) an experience in readjustment by a group of adolescents. (34-p. ref.)—*H. Angelino.*

2833. Fuller, J. B., & Chagnon, G. (U. Ottawa) **Factors influencing rotation in the Bender-Gestalt performance of children.** *J. proj. Tech.*, 1962, 26(1), 36-46.—The influence of stimulus variation and/or cue utilization on design rotation is studied. Vertical and horizontal placement of figures and alteration in shape of ground were variables introduced to groups of normal, neurotic, and schizophrenic children. "It was found that a vertically oriented figure produced more rotation than a horizontal one and the diamond shape produced more rotation than the rectangular shape." Configuration 3 produced the most rotation.—*A. F. Greenwald.*

2834. Galluser, U. M. **Leik-teoriar.** [Theories of play.] *Norsk pedagog. Tidsskr.*, 1961, 45(9-10), 349-358.—A brief review of some of the theoretical writings concerning the role and function of play in the child's development.—*L. Goldberger.*

2835. Gellert, Elizabeth. (Albert Einstein Coll. Medicine) **Children's conceptions of the content and functions of the human body.** *Genet. psychol. Monogr.*, 1962, 65, 293-405.—Methods for gathering and analyzing data concerning children's conceptions of the human body were devised. The material was used, primarily, to present a model for charting developmental trends in children's ideas about the content and functioning of their interior. 96 boys and girls, most of them pediatric patients, ranging in age from 4 to 16 years participated in the study. A large proportion of the ideas voiced appeared to be culturally derived. However, only selected information seemed to be assimilated by the Ss. Inferences derived from personal sensations, observations, and manipulations of the body were often referred to in explaining physiological functions. At all ages, magical, mystical, and animistic conceptions were reported very rarely. A marked improvement in the quantity and quality of statements made concerning bodily content and functioning occurred at about age 9 years.—*Author abstract.*

2836. Hawkes, Glenn R., & Pease, Damaris. **Behavior and development from 5 to 12.** New York: Harper, 1962. xiv, 375 p. \$5.75.—A textbook about growth, development, and guidance of the school-age child, containing "the pertinent research from many fields which contribute to the science of child development—anthropology, biology, home economics, medicine, physiology, psychology, and sociology." One chapter deals with "Observing and Recording Children's Behavior." Age profiles, anecdotes, case histories, and illustrations supplement the text. References after all chapters and study problems after most. Appendixes include a selected film list and a list of selected pamphlets.—*B. Lowenfeld.*

2837. Institute of Child Study, Parent Education Division. (U. Toronto, Canada) **Selected reading in child study for parents and leaders.** *Bull. Inst. Child Stud., Toronto*, 1962, 24(1, Whole No. 92), 24 p.—An extensive briefly annotated bibliography for parents, with additional references for leaders and educators. Included are textbooks and general reference books, as well as references on discipline; infant and preschool years; school age; adolescence; sex education; play and recreation; morality, religion and philosophy; and exceptional children. (200 ref.)—D. G. Appleby.

2838. Kántás, László. (Hungarian Acad. Science) **Egy ovodai csoport társas szerkezete.** [Social structure of a kindergarten children's group.] *Psichol. Tanulmányok*, 1958, 1, 140-142.—Through the method of nonparticipant observation of the social structure of a kindergarten group it was found that "though the social structure has the character of an aggregate, still groups may be distinguished on the basis of stable connections. The factors contributing toward the formation of groups are: sex, activity, age and extra-school connections." (Russian & English summaries.)—E. Friedman.

2839. Kowalski, Stanisław. **Rozwój mowy i myślenia dziecka.** [The development of speech and thinking in socio-educational situations in the kindergarten.] Warsaw, Poland: Państwowe Wydawnictwo Naukowe, 1962. 311 p.—The book analyzes a series of investigations and experiments concerning the speech development of preschool children. The speech pattern at this age is basically concrete-imaginings in nature and is affected by the school, family, and the child's emotional tone and degree of self-reliance. The ability to tell stories is a function of the attractiveness of the situation and the stimulating influence of the social situation. The child's ease of speaking in didactic situations is a variable quality. The ability to solve pictorial problems depends on the child's age and subject matter. Competency in the use of complete sentences is developed by child's ability to ask questions. The last chapter outlines procedures for assisting preschool children in their speech development.—H. Kaczkowski.

2840. Laurendeau, Monique, & Pinard, Adrien. (U. Montreal) **La pensée causale.** [Causal thought.] Paris, France: Presses Universitaires France, 1962. xi, 225 p. NF 15.—An experimental genetic approach to the development of causal thought in children is described in detail. From tests administered to 500 French-speaking Canadian children between 4 and 12 years old, it is concluded that Piaget's 5 stages in the evolution of infantile thought patterns are in general confirmed, although evidence for the initial, most primitive stage is lacking. A critical review of previous research is included. (52-item bibliogr.)—G. H. Mowbray.

2841. Lénárt, Edith. (Hungarian Acad. Sciences) **A gondolat folytonosságának kifejezése a tartalom kisebb köreiben.** [Forms expressing continuity of thoughts.] *Psichol. Tanulmányok*, 1958, 1, 77-83.—Essays of children between 10 and 14 years of age were analyzed. 3 main forms were found expressing the continuity of thoughts. (Russian & English summaries.)—E. Friedman.

2842. Lovell, K., Mitchell, B., & Everett, I. R. (U. Leeds) **An experimental study of the growth of some logical structures.** *Brit. J. Psychol.*, 1962,

53(2), 175-188.—A number of experiments of the type suggested by Piaget and Inhelder's book *La genèse des Structures Logiques élémentaires* (see 34: 2612) were given to a population of primary and educationally subnormal (ESN) special school children. The findings among the former group generally confirm those of the Geneva school. It has been possible to extend Piaget and Inhelder's findings by giving a number of tests to the same children, and by making a comparative study of primary and ESN school pupils.—*Journal abstract.*

2843. Palermo, David S., & Jenkins, James J. (U. Minnesota) **Superordinates, "maturity" and logical analyses of language.** *Psychol. Rep.*, 1962, 10(2), 437-438.—"In terms of frequency of responses to a word association test [Kent-Rosanoff], there is no evidence to substantiate the hypothesis that children (500 fourth-graders) respond with fewer superordinate responses than adults (N=1000). It appears that, while superordinate responses may be more "abstract" than some other types of responses, they are not, however, given more frequently as associates by adults than by children."—B. J. House.

2844. Rivoire, Jeanne Louise. (U. Arizona) **The development of reference systems in children.** *Dissert. Abstr.*, 1961, 22(3), p. 926.—*Abstract.*

2845. Simmons, Dale David. (U. Oregon) **The development of concepts about occupational status.** *Dissert. Abstr.*, 1961, 22(6), 2066-2067.—*Abstract.*

2846. Skard, Åse Gruda. (U. Oslo) **Fantasien i skolealderen.** [Fantasy in children of school age.] *Norsk pedagog. Tidsskr.*, 1961, 45(9-10), 370-381.—A discussion of the developmental changes in the nature and adaptive role of fantasy that take place as the child approaches and becomes of school age.—L. Goldberger.

2847. Strickland, Ruth G. (Indiana U.) **The language of elementary school children: Its relationship to the language of reading textbooks and the quality of reading of selected children.** *Bull. Sch. Educ. Ind. U.*, 1962, 38(4), 1-131.—"A loosely structured descriptive study of children's language. Its major purpose was to discover, isolate, and describe the patterns of syntax found in the oral language of elementary school children and to ascertain whether they appeared in certain representative reading textbooks . . ." in grades 1-6. Findings indicate that "the oral language children use is far more advanced than the language of the books in which they are taught to read."—R. E. Schutz.

2848. Umanskii, L. I. (Pedagogical Inst., Kursk) **O "sshibke" kak prieme izucheniya nervnoi sistemy detei.** [On "conflict" as a method of studying the nervous system of children.] *Vop. Psikhol.*, 1962, No. 1, 134-142.—The history of the experimental study of conflict is traced from Pavlov's original investigations to modern times. The relations suggested to subsume between type of nervous system and behavior in a conflict situation are pointed out. An experiment is described in which 50 kindergarten children are conditioned to make a motor response to a light signal and a tone. Differentiation is established by extinguishing the response to a light signal of a different color and a tone of a different timbre. After this discrimination reached a criterion of latency and reliability, a positive and negative stimu-

lus were presented simultaneously. The responses of the children varied in amount and latency of reaction occurring at the time of the conflict and on subsequent trials. The reactions of the children were related to the classification of type of nervous system which was presumably determined independently. Thus 6 out of 7 children displaying a positive reaction during conflict had a nervous system characterized as being strong-excitabile. 5 out of 7 children who displayed an inhibitory reaction during the conflict had a strong-inhibitory type of nervous system, etc.—H. Pick.

2849. Wallon, Henri, & Lurçat, Liliane. Espace postural et espace environnant (le schéma corporel). [Postural space and environmental space (the body schema.) *Enfance*, 1962, No. 1, 1-33.—In order to discover the factors defining the body schema, 356 children ages 2-11 to 13 were given several tasks requiring subjective positioning of arms and legs, i.e. holding these members in prescribed positions; objective movements in which the child put his body members in positions required for prescribed acts, such as holding an umbrella. The children were also asked to adjust the members of an articulated mannikin, to imitate the result, and to follow verbal instructions about position. There is an extensive analysis of the results with respect to laterality, "mirroring," the role of manipulation, and other factors. It is concluded that postural and environmental space are closely related. Different aspects of space, an external reality, are recognized as a function of the developing diversity of activities. Different levels of development may be discerned. Language development becomes importantly involved in later stages.—S. S. Marzolf.

2850. Wenar, Charles, & Coulter, Jane B. (U. Pennsylvania School Medicine) A reliability study of developmental histories. *Child Developm.*, 1962, 33(2), 453-462.—"Twenty-five mothers were re-interviewed three to six years later in order to determine whether they would give the same (S) or different (D) developmental information. The results were as follows: (a) 43 per cent of the statements were judged as D, and 40 per cent of these represented extreme changes. (b) There was no tendency to give more positive and pleasant information in the second interview. (c) The most reliable items were: child wanted or not, sex preference, breast or bottle fed, motor development, regression in toilet training, illness, sleep in infancy. The least reliable items were: health in pregnancy, discipline, relation to mother, relation to father, attitude toward problem, and comments."—W. J. Meyer.

Learning

2851. Brackbill, Yvonne, & Kappy, Michael S. (U. Colorado Medical School) Delay of reinforcement and retention. *J. comp. physiol. Psychol.*, 1962, 55(1), 14-18.—"Third-grade boys learned a series of discriminations under reinforcement delay intervals of 0, 5, or 10 sec. Recognition and relearning were tested one day or eight days after learning. Retention was facilitated by delay during acquisition for the short retention interval; the facilitative effect faded when retention was tested after the longer interval."—W. A. Wilson, Jr.

2852. Dmitriev, A. S. (Chair of Human and Animal Physiology, Bashkir U., Ufa, USSR) Okha-

ractere vzimodeistviia signal'nykh sistem u detei shkol'nogo vozrasta. [Nature of the interaction of the signaling systems in school children.] *Zh. vyssh. nervn. Deiatel.*, 1961, 11(6), 969-978.—25 children (age 8-16) were taught to cover up pictures of objects at the presentation of the picture and of the name of the object. Concrete and general names were used (oak-tree-plant). The RT of motor reactions was measured. After the formation of conditioned reflexes, Ss were tested for elective irradiation (reaction to any object) and for differential response. It was shown that when the pictorial stimulus was replaced by a verbal one, or vice versa, there emerged a conditioned reaction through the mechanisms of elective irradiation, difficult and slow at first, smooth and rapid after a few repetitions. The increase in age also made for a greater smoothness and constancy of the elective irradiation.—A. Cuk.

2853. Elkind, David; Koegler, Ronald R., & Go, Elsie. (U. California, Los Angeles) Effects of perceptual training at three age levels. *Science*, 1962, 137(Whole No. 3533), 755-756.—Children 6, 7, and 8 years old were first tested for their ability to reverse figure and ground and then given special training in this skill. Although all the children's ability improved greatly with practice, the initial differences between the age groups were still apparent both immediately and 1 month after training.—*Journal Abstract.*

2854. Erickson, Marilyn Ann. (U. Washington) Effects of social deprivation and satiation on verbal conditioning in children. *Dissert. Abstr.*, 1961, 22(5), 1722.—Abstract.

2855. Fowler, William. (Yale U.) Cognitive learning in infancy and early childhood. *Psychol. Bull.*, 1962, 59(2), 116-152.—The stress on genetic factors in early cognitive development has led to the amassing of a considerable body of normative data. However, there has been little interest in determining the scope and complexity of learning possible during the initial phases of development. Research literature and theoretical orientations are presented to show the potential importance of studying early cognitive learning. (201 ref.)—W. J. Meyer.

2856. Gelfand, Donna Mae Larsen. (Stanford U.) The influence of self-esteem on rate of conditioning and social matching behavior. *Dissert. Abstr.*, 1961, 22(5), 1732-1733.—Abstract.

2857. Hively, Wells. (Harvard U.) Programming stimuli in matching to sample. *J. exp. Anal. Behav.*, 1962, 5(3), 279-298.—"In these investigations, a 'teaching machine' was used to train pre-school and first-grade children in a series of progressively difficult discrimination tasks, leading up to matching to sample. Such training was much more efficient than training in the final discrimination alone. The errors the subjects made were found to be a function both of the differences between consecutive discriminations (the 'size of the steps' in the program) and the length of training on each discrimination. Theoretical and practical implications of these findings are discussed." (27 ref.)—J. Arbit.

2858. Lipsitt, L. P. (Brown U.) Stimulus generalization and discrimination learning by children. *Percept. mot. Skills*, 1962, 14(1), 11-17.—4 groups each of 20 1st graders received different pretraining prior to testing on a 2-stimulus discrimi-

nation task involving colored lights. Best discrimination learning was found for the group having unreinforced pretraining experience with the positive stimulus. Next, came those with unreinforced experience with the negative stimulus. Next, were those with unreinforced experience with both positive and negative stimuli. Discrimination learning was poorest for the group that had prior reinforced experience with both stimuli. Performances were significantly different from comparisons of the highest performing group and the 2 lowest as well as between the 2nd highest and the lowest.—*W. H. Guertin.*

2859. McKee, John P., & Riley, Donald A. (U. California, Berkeley) Auditory transposition in six-year-old children. *Child Develpm.*, 1962, 33 (2), 469-476.—“First grade children were trained to discriminate between two successive auditory stimuli which differed either in amplitude or frequency. Subjects who learned were then tested for transposition. Though the frequency stimuli were demonstrated to be initially more discriminable than the amplitude stimuli, a significantly larger proportion of amplitude subjects was able to learn the discrimination to criterion. Further, for those subjects who reached the criterion, transposition was significantly greater for amplitude than for frequency.”—*W. J. Meyer.*

2860. McCray, Curtis L., & Harper, Robert S. (U. Nebraska) Some relationships of schedules of reinforcement to variability of response. *J. comp. physiol. Psychol.*, 1962, 55(1), 19-21.—Kindergarten children learned to press a bar for a visual incentive. Subsequently they were tested in a new situation in which any of 4 responses would produce the reinforcement. Greater response variability was seen in this test situation when the original learning had been with a variable ratio schedule than when a fixed-ratio or regular schedule of reinforcement had been used.—*W. A. Wilson, Jr.*

2861. Nishimura, Ruth. (Rutgers U.) Reinforcement as a function of interpersonal and situational variables. *Dissert. Abstr.*, 1961, 22(5), 1725.—*Abstract.*

2862. Siegel, Sidney, & Andrews, Julia McMichael. (Pennsylvania State U.) Magnitude of reinforcement and choice behavior in children. *J. exp. Psychol.*, 1962, 63(4), 337-341.—“The classical two-choice uncertain outcome experimental paradigm has been adapted for use with preschool children in a test of the predictions of two models for choice behavior in the situation. Children exhibited a greater tendency to maximize the probability of a correct response as the amount of reinforcement for such a response was increased. . . . In addition, it is suggested that the maximizing tendency observed among very young children may be indicative of a more advanced stage in the development of a ‘concept of probability’ in children of this age than that which may be inferred from Piaget’s results.”—*J. Arbit.*

2863. Sokhina, V. P. (Moscow State U., USSR) Vydelenie figury iz fona det'mi-doshkol'nikami: Soobshchenie I. Vydelenie prostykh form na chertezhe. [Isolation of figures from their ground by preschool children: Communication I. Isolation of simple forms by means of drawings.] *Dokl. Akad. Pedag. Nauk RSFSR*, 1962, No. 1, 85-88.—40 children (age 3-6) were trained to reconstruct different figures (a house, geometrical designs) out of their

elements. In spite of strong age differences, the general conclusion was drawn that “the isolation of geometrical figures out of a complex background is possible, in a general way, at all stages of pre-school age.”—*A. Cuk.*

2864. Start, K. B. (U. Western Australia, Netherlands, W. Australia) The influence of subjectively assessed “games ability” on gain in motor performance after mental practice. *J. genet. Psychol.*, 1962, 67, 169-173.—38 11-year-old boys were tested in throwing. They were naive to a 2nd throwing skill in which they were subsequently given instruction, and mentally, but not physically, practiced this skill during 9 daily practice periods, each of 5 minutes duration. They were subsequently tested in their performance of the skills they had been mentally practicing. The “games ability” of each member of the group was calculated from subjective assessments of his performances at 4 games. The boys were then placed in rank order and the ranking subdivided into high, average, and low “games ability” groups. It was found that only the high “games ability” group made statistically significant improvement over the period of the practice and that the greatest gain occurred within this group with the boys who scored least in the original throwing test. Thus it appeared that 2 factors could have contributed to the results, “games ability” or motivation caused by a necessity to maintain a games reputation.—*Author abstract.*

2865. Suppes, Patrick, & Ginsberg, Rose. (Stanford U., Palo Alto, Calif.) Application of a stimulus sampling model to children’s concept formation with and without overt correction responses. *J. exp. Psychol.*, 1962, 63(4), 330-336.—5- and 6-year-old Ss learned 2 concepts in the binary number system, each concept represented by 3 different stimuli, using either a correction (C) or noncorrection (NC) procedure. Group C was better than Group NC. Both a paired associate analysis and a pure property analysis, in which all stimuli describing a single concept were treated as identical items, were employed.—*J. Arbit.*

2866. Walters, Richard H., & Foote, Ann. (U. Toronto) A study of reinforcer effectiveness with children. *Merrill-Palmer Quart.*, 1962, 8(3), 149-157.—Using the marble box employed by Gewirtz and Baer, 1st- and 2nd-grade girls rated high or low on dependency (Beller scale) were conditioned (half of them in a potentially anxiety-arousing situation and half of them in friendlier circumstances) with the use of 3 types of reward. Significant differences were attributable to types of reward; the incentive value of verbal reinforcers was low for this task.—*E. L. Robinson.*

2867. Zinchenko, V. P., Lavrent'eva, T. V., & Ruzskaia, A. G. Sravnitel'nyi analiz osiazaniia o zreniia: Soobshchenie X. Osobennosti dvizheniia ruki pri vypolnenii pertseptivnogo i opoznavatel'nogo deistviia. [Comparative analysis of touch and vision: Communication X. Features of hand movements in carrying out perceptual and recognition tasks.] *Dokl. Akad. Pedag. Nauk RSFSR*, 1962, No. 1, 81-84.—24 children (age 3-7) were instructed to handle 2 flat figures under 2 conditions: (a) learning to know the figure by touch only, and (b) recognizing by touch a figure seen before. The hand movements were photographed. The analysis shows significant differences between age groups and

between the learning and the recognition of figures.
—A. Cuk.

Abilities

2868. Case, D., & Collinson, J. M. (U. Birmingham) The development of formal thinking in verbal comprehension. *Brit. J. educ. Psychol.*, 1962, 32(2), 103-111.—Children of both sexes, age 14-18, were studied to see if inferences drawn in history, etc., correspond to Piaget's description of the formal operational stage of reasoning. "Formal thought in language subjects appears to need more than the attainment of a certain Chronological and/or Mental Age." More important is the sequence of stages. Appendix presents one text and questions and specimen answers—B. T. Jensen.

2869. Fisher, Seymour. (State U. New York Medical School, Syracuse) Developmental sex differences in right-left perceptual directionality. *Child Developm.*, 1962, 33(2), 463-468.—"A group of 189 children were studied to determine if they would manifest right-left consistencies in their autokinetic perceptions. It was found that beginning with age 11 male Ss were significantly more often right-directional than female Ss, but there were no significant differences before this age. The question was raised whether a special psychological reorganization in the right-left dimension does not occur in the adolescent period. It was also suggested that the differences in autokinetic directionality between the two sex groups might represent differences in distribution of right vs. left muscle tonus levels."—W. J. Meyer.

2870. Hood, H. Blair. (Cumberland, England) An experimental study of Piaget's theory of the development of number in children. *Brit. J. Psychol.*, 1962, 53(3), 273-286.—In spite of the great weight of theory and speculation they contain, Piaget's books are all founded essentially on experimental work with children, and the purpose of this study was to repeat some of the experiments which Piaget has outlined in the book on number. Piaget has been criticized for not stating the number of Ss who took part in a given experiment from which he has drawn a specific conclusion: for not giving precisely the age range of the Ss, and for not relating their performance to mental age as well as to the chronological age. The aim of this study therefore was to determine whether (a) a group of normal English speaking children, and (b) a sample of mentally retarded children and adults, would show the same general trends in development of pre-number concepts as Piaget's Ss. The factors of mental and chronological age were also considered, as well as the relation of stage of development to ability in arithmetic.—*Journal abstract*.

2871. Horton, Carrell P., & Crump, E. Perry. (Meharry Medical Coll.) Growth and development: XI. Descriptive analysis of the backgrounds of 76 Negro children whose scores are above or below average on the Merrill-Palmer scale of mental tests at three years of age. *J. genet. Psychol.*, 1962, 100(2), 255-265.—Ss consisted of 76 Negro children whose percentile scores on the Merrill-Palmer Scale of Mental Tests fell within 1-19 and 80-99 at 36 months of age. Characteristics of both the child and his family were analyzed descriptively in relation to test performance, and included: sex, birth weight, height and weight at 36 months,

socio-economic status, education of parents, employment of mother, number of siblings, parents' marital status, and occupation of father.—*Author abstract*.

2872. Jones, S. (University Coll.) The Wechsler Intelligence Scale for Children applied to a sample of London primary school children. *Brit. J. educ. Psychol.*, 1962, 32(2), 119-133.—A stratified sample of 240 children, aged 7½-10½, received both the WISC and the Stanford-Binet. For average and above children a higher IQ is found on Binet than on WISC and "... the size of the discrepancy ... is too large to permit the use of the WISC as a substitute ..." Reliability of the WISC is reasonable in this sample and the WISC is "... more valid and reliable at year 10 than at year 8 or 9, for this sample" 8 tables present data on factor loadings and other matters. (18 ref.)—B. T. Jensen.

2873. Landmark, Margrete, & Grinde, Turid. (Sentralinst. Cerebral Parese, Oslo, Norway) Undersøkelse av en gruppe normale barn med forskjellige intelligensprøver. [A group of normal children tested with five intelligence tests.] *Nord. Psykol.*, 1962, 14(4), 171-185.—44 Norwegian children, age 8-9, were each given 5 different intelligence tests: Norwegian Binet; Revised Edition of Columbia Mental Maturity Scale; author adaptation of Leiter International Performance Scale; Raven Progressive Matrices, Sets A, AB, B, revised order; and Goodenough Draw-a-man. The results showed considerable variation from test to test for a given child, indicating the necessity for a combined battery to obtain a comprehensive view of the child's resources. The author suggests adding up the standard scores from all the tests, excluding the Goodenough, and taking the sum as the index of intelligence. A statistical analysis revealed the Binet and the Raven tests as giving the best single measure of IQ for this group of children. The absurdity of comparing IQ's from tests with different means and standard deviations is discussed, and the necessity for establishing adequate age norms in Norway is pointed out.—L. Goldberger.

2874. Nelson, Thomas M., & Bartley, S. Howard. (Michigan State U.) Various factors playing a role in children's responses to flat copy. *J. genet. Psychol.*, 1962, 100(2), 289-308.—The conventional assumption made by those involved in research and testing is that flat copy materials (forms on a 2-dimensional surface), offer unequivocal stimulus materials. The authors assume that flat copy can be reacted to in a number of ways. To test the hypothesis, an outline drawing of a diamond (flat copy) was presented to children from ages 3 to 11, and to 20 female college students. With this flat copy was presented a group of other items ("diamonds") out of which the S was to choose the one perceived to be most like the flat copy sample, next most like, etc. The results showed that areal features are primarily oriented at earlier ages, that perception of edges occurs later, and that formal training influences the visual appreciation. The findings are related to Stanford-Binet Test norm for reproduction of flat copy materials at various age levels.—*Author abstract*.

2875. Russell, David H., Saadeh, Ibrahim Q. (U. California, Berkeley) Qualitative levels in children's vocabularies. *J. educ. Psychol.*, 1962, 53(4), 170-174.—An experimental test of 40 items

given to 257 3rd-, 6th-, and 9th-grade pupils revealed a definite decrease in choice of concrete definitions and increase in functional and abstract choices at each higher level, and especially between the 3rd and 6th grades. Significant differences were obtained between all categories except functional choices in the 6th and 9th grades. When children were classified according to their dominant response on the vocabulary test (at least 40% of the choices in that area) it was found that there was a significant difference between the mixed and both the functional and abstract groups at the 1% level of confidence.—*Journal abstract.*

2876. Shapiro, Herbert. (Albert Einstein Medical Cent., N. Division, Philadelphia) **The development of walking in a child.** *J. genet. Psychol.*, 1962, 100 (2), 221-226.—In a normal child, a latent period of 25 days was observed between independent standing and independent walking. Development proceeded from initial steps to continuous, essentially unaided walking, over a period of 34 days. Once initiated, facility in walking developed at an exponential, not a linear rate.—*Author abstract.*

2877. Shechtman, Audrey M. (U. Minnesota) **The relationship of variability in children's verbal and non-language test performance to current and later behavioral functions.** *Dissert. Abstr.*, 1961, 22(6), 2065-2066.—*Abstract.*

2878. Smedslund, Jan. (U. Oslo, Norway) **The acquisition of conservation of substance and weight in children: VII. Conservation of discontinuous quantity and the operations of adding and taking away.** *Scand. J. Psychol.*, 1962, 3(2), 69-77.—In Experiment I a test of conservation and highly different items of addition and subtraction were given. Conservation was closely related only to an item involving a subtraction of a piece and a subsequent addition of the same piece ($- +$ sequence), followed by an addition of a piece and the subsequent subtraction of the same piece ($+ -$ sequence). In Experiment II a test of conservation was given together with items involving various combinations of simple $- +$ and $+ -$ sequences. It is concluded that $- +$, $+ -$, and conservation seem to form a genetic sequence in this order, thus strengthening the hypothesis that a concept of conservation reflects a complete reversibility of the operation of $+$ and $-$.—*Journal abstract.*

2879. Sokhina, V. P. (Moscow State U., USSR) **O vydelenii figury iz fona doskol'nikami. Soobshchenie II. Chlenenie figury i vydelenie zadannykh chastei.** [Figure-ground discrimination in preschool children. Communication II. Analysis of figures and isolation of given parts.] *Dokl. Akad. Pedagog. Nauk RSFSR*, 1962 No. 2, 71-74.—Ss (age 3-6) were given 3 tasks: (a) to isolate squares and triangles from complex figures, (b) to analyze complex figures into squares and triangles following a drawing, and (c) same as in (b) but without a drawing. The 1st task was solved almost by all Ss. The 2nd was difficult even for the 6 year olds. Task 3 was carried out almost by all Ss in the sense that they were able to identify smaller units in very complex figures.—*A. Cuk.*

2880. Suchman, J. Richard, & Aschner, Mary Jane McCue. (U. Illinois) **Perceptual and cognitive development.** *Rev. educ. Res.*, 1961, 31(5), 451-462.—During the past decade there has been increasing

interest in the effects of central and intervening processes on the act of perceiving. The construction of theories and models of perceptual mediation has not been matched by empirical research, however, and a number of hypotheses have been put forward that are still in need of adequate testing. Developmental studies of form perception have persistently produced the finding that common objects are invariably perceived and discriminated more readily by young children than are Euclidian shapes. The act of making social judgments involves more than simple perceptual discriminations. J. P. Guilford and his associates' tests tap such factors in creativity as ideational fluency, spontaneous flexibility, and originality. The most recent studies on the growth of particular concepts reflect Piaget's influence. (39 ref.)—*F. Goldsmith.*

2881. Varma, P. R. **Ethical discrimination as related to intelligence, age and sex: A study of moral development in children.** *J. psychol. Res., Madras*, 1962, 6(1), 44-51.—The investigation was conducted on 151 children, 92 boys and 66 girls, in the age range of 3+ to 8+. Results show that: no significant relationship exists between intelligence and ethical discrimination, capacity for ethical discrimination improves with age, and there are no significant sex differences in the capacity for ethical discrimination.—*U. Pareek.*

2882. Venger, L. A. (Inst. Preschool Education, RSFS Acad. Pedagogicheskikh Sciences) **Razliche-nie formy predmetov det'mi rannego vozrasta.** [Discrimination of form of objects by children of early age.] *Dokl. Akad. Pedagog. Nauk RSFSR*, 1962, No. 2, 75-80.—4 Ss (age from 2 months and 1 day to 3 months and 10 days) were presented with wooden, solid, and flat objects of different geometrical form. Some were "old" (Ss had previously played with them) and some were new. Discrimination was measured by the duration of visual fixation on the objects. The following conclusions were drawn: (a) Discrimination is possible at this early age. (b) In some cases, even degrees of discrimination between figures can be established. (c) When the old figure is presented in a different spatial arrangement, it is not recognized by Ss.—*A. Cuk.*

2883. Young, H. B., Tagiuri, R., Tesi, G., & Montemagmi, G. (Harvard) **Influence of town and country upon children's intelligence.** *Brit. J. educ. Psychol.*, 1962, 32(2), 151-158.—793 town children and 373 country children in the Florence, Italy, area were given a relatively culture-free intelligence test. Ages ranged from 9 yr. 6 mo., to 14 yr. 6 mo. Town boys scored higher than town girls, but the reverse was true of the country children. No differences were noted between urban and rural girls. Data were also analyzed by social class.—*B. T. Jensen.*

Personality

2884. Alby, J. M. **Identité et rôle sexuels.** [Identity and sexual roles.] *Evolut. psychiat.*, 1962, 27(2), 189-223.—The child adopts a sexual role before being conscious of his sexual identity and without knowledge of anatomical sexual differentiation. The author hypothesizes a preform, engraved in the experienced image of the body, different for boys and girls, which develops this identity through identifications. For examples, distortions in identity and sexual role, such as twins, fetishes, and obesity are

cited, as well as the influence of cultural factors. (45 ref.)—*L. A. Ostlund.*

2885. Argyle, Michael, & Robinson, Peter. (Inst. Experimental Psychology, Oxford) **Two origins of achievement motivation.** *Brit. J. soc. clin. Psychol.*, 1962, 1(2), 107-120.—Previous investigations show that achievement motivation in childhood can be produced by rewards and punishments only under unusual circumstances. The hypotheses that 2 other types of learning may also occur were tested in a correlational study of 500 children. Measuring achievement motivation by means of imaginative stories, questionnaires, and relations with parents by a modified version of the semantic differential, it was confirmed that learning can occur by the introjection of parental exhortation and standards and by identification with achievement-oriented parents and others provided, in both processes, that the parental identification is sufficient. Achievement motivation was also found to be correlated with various measures of self-aggression and guilt.—*C. M. Franks.*

2886. Arkos-Udvardi, Charlotte. (Hungarian Acad. Science) **A barát-választás indokolása ovodáskorban.** [Motives of kindergarten children in their choice of friends.] *Pszicholo. Tanulmányok*, 1958, 1, 161-164.—Motives given by kindergarten children for their choice of friends were compared to answers on a similar topic given by school children. It was found that motives do not change with age, but show differences according to sex and play-communities. The majority of the professed motives come under the heading of (a) conformity (to the motives of adults), (b) solidarity, (c) character. (Russian & English summaries)—*E. Friedman.*

2887. Bronson, G. **Critical periods in human development.** *Brit. J. med. Psychol.*, 1962, 35(2), 127-133.—"Assuming that critical periods represent development stages during which the organism is maximally involved in the initial channelling of a new motivational system, it was predicted that the enduring motivational orientations of an individual could be most sensitively appraised by observations during the appropriate critical periods." Selective predictive efficiency was found for males but not for females. Involvement with people and orientation toward competence at age 9-10½ were predicted, respectively, from observations made during the 1st year of life and the 3rd year.—*C. L. Winder.*

2888. Collins, L. F., Maxwell, A. E., & Cameron, Kenneth. (Maudsley Hosp., London, England) **A factor analysis of some child psychiatric clinic data.** *J. ment. Sci.*, 1962, 108 (Whole No. 454) 274-285.—2 samples, of 268 boys and 98 girls, after elimination of cases of mental retardation, epilepsy, and psychosis, studied on 60 items of clinic information used in assessment of children's problems, revealed little common variance. However, factors identified as rebelliousness and rootlessness typified the boys and also showed up for the girls. A factor of anxiety also characterized the boys, and a factor of "timid school failure" the girls.—*W. L. Wilkins.*

2889. Farnham, Sylvia. (U. Pennsylvania) **Effects of task similarity, preference, difficulty, outcome and goal value on expectancy-generalization.** *Dissert. Abstr.*, 1961, 22(5), 1732.—*Abstract.*

2890. Gasser, Edith Strieter. (New York U.) **An investigation of the body image of boys as**

expressed in self drawings: An intercultural study. *Dissert. Abstr.*, 1962, 22(12), 4425-4426.—*Abstract.*

2891. Gourevitch, Vivian, & Feffer, Melvin H. (City Coll., N. Y.) **A study of motivational development.** *J. genet. Psychol.*, 1962, 100(2), 361-375.—A hierarchy of motivation, following Maslow's general scheme, was formulated in terms of 4 successive levels of development. A total of 104 male Ss, ranging in age from 6 years to adulthood, were given the Role-Taking Task, a projective test based on the MAPS in which the S takes the roles of the actors in his stories. Motivation scores were obtained from a content analysis of the Role-Taking protocols, and were controlled for the Ss' verbal productivity. Ss were also given the WISC or WAIS Vocabulary Test. Comparisons were made between 3 age groups: Adults (mean age 36.0 yr.), older children (10-13), and younger children (6-9 yr.). The results confirmed the motivational hierarchy. Older children differed significantly from younger children at the 2nd level of the hierarchy, and adults differed significantly from older children at the 3rd and 4th levels of the hierarchy. Adults differed increasingly from children at successively higher levels of the hierarchy. The symbolic reinforcement represented by the 3rd and 4th levels of the hierarchy was rarely mentioned by the children, and there were no significant differences between older and younger children at these levels.—*Author abstract.*

2892. Grattarola, F. R., & Rovera, G. G. **Problemi psicopatologico clinici in tema di melancolie dell'età evolutiva.** [Psychopathological and clinical problems in the theme of depressions in the developmental age.] *Arch. Psicol. Neurol. Psichiat.*, 1962, 23(3), 223-248.—Depressions in the developmental age cannot happen prior to 3 or 4 years of age, because a psychological basis for the development of the ethical level of conscience does not exist.—*L. L'Abate.*

2893. Haworth, Mary R. (Nebraska Psychiatric Inst.) **Responses of children to a group projective film and to the Rorschach, CAT, Despert Fables and DAP.** *J. proj. Tech.*, 1962, 26(1), 47-60.—Some consistency was demonstrated in children's responses to individual and group projective techniques. Obsessives' responses corresponded to expectation on Rorschach, CAT, and in recall of punitive film scenes. The group film test may serve as a quick screening device in a school situation.—*A. F. Greenwald.*

2894. Hulek, Jane Elizabeth. (Boston U.) **Peer relations and body-image maturity in children.** *Dissert. Abstr.*, 1961, 22(4), 1252.—*Abstract.*

2895. Johnson, Ronald C. (U. Hawaii, Honolulu) **A study of children's moral judgments.** *Child Developm.*, 1962, 33(2), 327-354.—All of the children in grades 5, 7, 9, and 11 (N = 807) were administered a moral judgment test, and subsamples in grades 7, 9, and 11 were administered a test of abstractness-concreteness. Parents of Ss in the subsamples responded to a parent attitude test. Correlations between moral judgment responses revealed more positive and significant correlations than would be expected by chance. Abstractness-concreteness was slightly related to moral judgment but parental attitudes were significantly related.—*W. J. Meyer.*

2896. Jones, Austin. (U. Pittsburgh) **Sexual symbolic response in prepubescent and pubescent children.** *J. consult. Psychol.*, 1961, 25(5), 383-387.—Prepubescent children designate elongated geomet-

ric figures as male and rounded figures as female. Near puberty the response drops to chance level.—*E. R. Oetting.*

2897. Kagan, Jerome, & Moss, Howard A. (Fels Research Inst., Yellow Springs, O.) **Personality and social development: Family and peer influences.** *Rev. educ. Res.*, 1961, 31(5), 463-474.—Research in personality development has concentrated on 2 particular areas: (a) the motive-related responses of aggression, dependence, achievement, and sex-role identification and (b) the effects of parental control, affection, and personality on the development of the child's needs and patterns of social interaction. The last 3 years have witnessed a dramatic increase in studies on the long-term stability of behavior. The data suggested that measures of selected behaviors of school-age and adolescent children often were predictive of adult functioning, especially when the behavior in question was congruent with traditional sex roles. The delineation of 2 primary dimensions of maternal behavior—love versus hostility and autonomy versus control—was one of the important advances in research in parent-child relations. The effects of separation from the family and the peer-group influence came under closer scrutiny. (75 ref.)—*F. Goldsmith.*

2898. Lebo, Dell. (Child Guidance & Speech Correction Clinic, Jacksonville, Fla.) **Aggressiveness and expansiveness in children.** *J. genet. Psychol.*, 1962, 100(2), 227-240.—It is generally agreed that aggressive children are more expansive, in that they require a greater amount of space, than nonaggressive children. Hypotheses were constructed with regard to room space, number of words used, and drawing size. 80 children, divided chronologically into groups aged 4, 6, 9, and 12 years and categorized according to scores indicating aggressive intermediate, and non-aggressive tendencies on a scale of aggression were used as Ss. As hypothesized, it was found that there was relationship between use of space and words and aggression and age. However, drawing size was not found to be related.—*Author abstract.*

2899. Maskit, Mae Lee. (U. Michigan) **Management of aggression in preadolescent girls: Its effect on certain aspects of ego functioning.** *Disser. Abstr.*, 1961, 22(3), 917.—*Abstract.*

2900. Reese, Hayne W. (U. Buffalo) **Sociometric choices of the same and opposite sex in late childhood.** *Merrill-Palmer Quart.*, 1962, 8(3), 173-174.—5th-grade Ss using a rate sociometric scale (from 1, meaning best friend, to 5 for "dislike") indicate that girls are more favorable toward those boys most accepted by other boys. Girls' acceptance by boys is not related to girls' acceptance by other girls.—*E. L. Robinson.*

2901. Stott, Leland H. (Merrill-Palmer Inst., Detroit, Mich.) **Personality at age four.** *Child Developm.*, 1962, 33(2), 287-311.—"A combination of cluster analysis and factor analysis was used to identify and describe the common social behavior dispositions underlying the observed behavior of a group of four-year-old children. The behavior data were recorded in terms of 220 check-list items. The cluster analysis of the intercorrelations among these items resulted in 51 clusters or surface traits which, in terms of an hierarchical conception of personality organization, represented the first level of generalization. The correlations among the 51 clusters were then factor analyzed. The outcome was 14 factors,

13 of which were adequately portrayed by their constituent items for interpretation."—*W. J. Meyer.*

2902. Tabachnick, B. Robert. (U. Wisconsin) **Some correlates of prejudice towards Negroes in elementary age children.** *J. genet. Psychol.*, 1962, 100(2), 193-203.—This study examines satisfaction with self in each of 10 categories as possible correlates of prejudice towards Negroes in elementary age children. The Ss were 302 children attending the 5th grades of 6 elementary schools in the San Francisco Bay Area. Low, but statistically significant, correlation coefficients revealed satisfaction with personality characteristics and satisfaction with social relations with peers to be correlates of prejudice in children. Slighter, but statistically significant, correlation coefficients suggest that satisfaction with mental abilities, satisfaction with social relations with parents and teachers, and satisfaction with achievement in school subjects may be related to prejudice in elementary age children. Children who were more satisfied with themselves tended to be less prejudiced than children who were less satisfied with themselves. Satisfaction with work habits, satisfaction with physical ability and appearance, and average grade level achievement (with and without intelligence controlled) were found not to be related to prejudice in elementary age children. The results supported Allport's hypothesis (1954) that felt frustration is closely related and objective frustration negligibly related to prejudice.—*Author abstract.*

2903. Torgoff, Irving. (Merrill-Palmer Inst., Detroit, Mich.) **Personality and social development: Societal influences.** *Rev. educ. Res.*, 1961, 31(5), 475-486.—The effect on personality development of the radical social changes characteristic of contemporary life was a matter of much concern and conjecture but of surprisingly rare empirical effort. Wide attention was given both to the process by which social class and ethnic background affected achievement motivation and to the role of parents as mediating agents. The author thinks that much of the research reviewed by him would have benefited from the use of previously obtained base lines by which to assess change. The need for systematic, periodic, extensive assessments of social and personality characteristics cannot be ignored if we are ever to understand the impact of contemporary and future social changes on personality development. (81 ref.)—*F. Goldsmith.*

2904. Tyler Forrest B., & Whisenhut, James W. (Southern Illinois U.) **Motivational changes during preschool attendance.** *Child Developm.*, 1962, 33(2), 427-442.—Descriptive observations from 2 samples of children enrolled in different years in the same preschool were analyzed for changes in the motivational characteristics of the children's behavior. Data for each sample were collected over a 3-month period. The 2 samples became more alike in terms of independence behavior and there was no evidence that preschool functioned to increase homogeneity of behavior.—*W. J. Meyer.*

2905. Unger, Sanford M. (National Inst. Mental Health) **Antecedents of personality differences in guilt responsivity.** *Psychol. Rep.*, 1962, 10(2), 357-358.—A projective test, designed to measure guilt potential, and parts of the Children's Manifest Anxiety Scale judged to measure guilty apprehension were administered to 6th-grade students (N = 328).

Correlations between test scores and questionnaire answers by the children with regard to parental behavior are reported and discussed in relation to a 2-stage theory of guilt consisting of a verbal stage and an autonomic-visceral stage.—*B. J. House.*

2906. Wing, Lucy Florence. (Syracuse U.) The effects of different expectancies followed by failure on the performance, preference, and goals of task-oriented and failure-avoidant children. *Dissert. Abstr.*, 1962, 22(12), 4404.—*Abstract.*

Parent-Child Relations

2907. Ambinder, Walter; Fireman, Laura; Sargent, Douglas, & Wineman, David. Role phenomena and foster care for disturbed children. *Amer. J. Orthopsychiat.*, 1962, 32(1), 32-41.—Interviews with 50 foster parents who care for "hard to place" juvenile court wards indicate vagueness about respective roles of foster parents, caseworkers, and agencies. A clearer role image must be constructed for foster parents and for caseworkers. Foster parents' role must be redefined in a manner consistent with the rehabilitative goal of their tasks. Caseworkers must be prepared to give specific support to foster parents who perform in the redefined role and be available for consultation, advice, and active intervention where these activities are pertinent. Someone should define the role the foster child should play in the system. In the discussion Catherine Berwald suggests that perhaps classes and study groups should be established for child welfare workers so that they could learn what foster parents need to know.—*R. R. Perl.*

2908. Andrieux, Cecile. Association de quelques variables socio-culturelles avec la représentation du rôle de la mère. [Association of some sociocultural variables with the representation of the role of the mother.] *Psychol. Franc.*, 1961, 6(2), 126-136.—216 working women and 184 nonworking women were administered a questionnaire to determine their attitudes concerning the advisability for mothers of preschool children to be employed outside of the home. An analysis of variance was calculated on the responses to determine the effects of employment, profession, educational level, religion, politics, economic level, and number of children.—*C. J. Adkins.*

2909. Bath, John A., & Lewis, Edwin C. (Iowa State U.) Attitudes of young female adults toward some areas of parent-adolescent conflict. *J. genet. Psychol.*, 1962, 100(2), 241-253.—103 college women were administered 2 questionnaires. The first asked for attitudes toward 37 problems regarding parental control of an adolescent girl. The 2nd asked for information concerning personal data, practices in their own home in the same 37 areas, and the amount of conflict occurring between them and their parents in each of these areas when the Ss were adolescents. It was found that the more severe and inconsistent parental practices produced the most conflict, although in general the treatment had not been greatly restrictive. The amount of conflict in the home was unrelated to any of the personal data. Degree of rigidity of attitudes toward parental treatment of an adolescent was found to be positively related to rural background and negatively related to a maternally-dominated authority pattern in the family. Attitudes were found to be unrelated to the degree of conflict experienced in the home in any of the areas. A high degree of

similarity was found between parental practices in the family and present attitudes toward parental treatment of an adolescent.—*Author abstract.*

2910. Bond, Alma Marian. (Columbia U.) Grandmothers' attitudes and mothers' concerns. *Dissert. Abstr.*, 1961, 22(4), 1240.—*Abstract.*

2911. Bowerman, Charles E., & Irish, Donald P. (U. North Carolina) Some relationships of stepchildren to their parents. *Marriage fam. Liv.*, 1962, 24(2), 113-121.—The child-parent adjustment of approximately 29,000 7th-12th graders, 2145 of them stepchildren, was measured through questionnaires administered by classroom teachers. The students were caucasian and preponderately Protestants. Step-relationships showed more stress, ambivalence, and low cohesiveness than did normal homes. Stepmothers had more difficult roles than did stepfathers. Stepdaughters manifested more extreme reactions than did stepsons. The presence of a stepparent tended adversely to influence the adjustment of the child to the natural parent.—*L. Shatin.*

2912. Brock, Helene. Untersuchungen über die Entwicklung der Kinder nervenkranken Mütter. [Investigation of the development of children of mentally ill mothers.] *Acta paedopsychiat.*, Basel, 1962, 29(1), 116-123.—Of 143 women in psychiatric treatment, 67 were seriously neurotic or psychopathic. In most cases the disorder preceded the birth of children or occurred shortly thereafter. Of the 196 children whose mothers fell ill before birth or during the 1st-3rd year, good or average development was noted in 80%. Of the 44 whose mothers fell ill in the 4th-6th year or more, good or average development was noted in 89%. The hypothesis that the character is permanently distorted through constant negative maternal relations is not supported.—*G. Rubin-Rabson.*

2913. Brooks, Melvin S., Rennie, Douglas L., & Sondag, Roger F. (Southern Illinois U.) Sociological variables in the reaction of parents to child-rearing information. *Merrill-Palmer Quart.*, 1962, 8(3), 175-182.—Interviews with 69 mothers who had received public health department letters on child-rearing practices indicated that 58% had read all 12 of the letters. Mothers with 1 year or more of college education reported more reading. A negative relationship was found between reading of the letters and both upward and downward social mobility. Rurally reared women read as much as did those from urban homes.—*E. L. Robinson.*

2914. Camilleri, C. Les rapports familiaux du jeune Tunisien de culture occidentale. [Family relationships of the young Tunisian of occidental culture.] *Enfance*, 1962, No. 1, 35-51.—A questionnaire was submitted to 240 Tunisian young men and 150 young women, mean age 21-3. The total group consisted of 3 subgroups as follows: I, youth and the parents living in Tunis; II, provincial youth attending school in Tunis; III, youth living in and attending school in the provinces. Responses to the questionnaire were scaled in terms of the degree of family integration shown. There is little difference in the mean scale values of the 3 groups. However, items having higher than average scale values were those having to do with personal relations with the parents, the "existential" items. Items having lower than average integration values were those having to do with ideals,—the cultural. In general it is concluded that little disharmony with the family is now present,

but that this generation will do things differently when it has the opportunity.—S. S. Marzolf.

2915. Colwell, James Morrison. (American U.) The relation of controlling and hostile attitudes of mothers to certain personality traits in children. *Dissert. Abstr.*, 1961, 22(4), 1241.—Abstract.

2916. Eisenberg, Leon. The sins of the fathers: Urban decay and social pathology. *Amer. J. Orthopsychiat.*, 1962, 32(1), 5-17.—A study of foster children referred for consultation service indicates that many of them are relatively inarticulate; show poor orientation to time, place, and person; and are apathetic and mistrustful in a clinical interview. Many of them are almost unsocialized when they come into care. Perhaps the insistence on foster care may be an anachronism in an era when the family as an institution is undergoing rapid change. Perhaps a durable group home might be a better solution for some children than a series of inadequate foster homes. Might we not do more for children by enriching A. D. C. programs, public housing, health services, marriage counseling, and family services so as to preserve the family of origin?—R. E. Perl.

2917. Elder, G. H. (U. North Carolina) Structural variations in the child rearing relationship. *Sociometry*, 1962, 25(3), 241-262.—Autocratic authoritarian, democratic, equalitarian, permissive, laissez-faire, and ignoring are 7 types of child rearing relationships identified in this study of (a) the relationship between social class, education, religion of parent, size of family, and the child rearing structures, and (b) the effects of the relationship upon parent and adolescent affective relations and the adolescent's attitude toward the child rearing policy. The data are the responses of 7400 adolescents living in Ohio and North Carolina to a structured questionnaire. "Parental dominance was most common to parents of low SES who are Catholic, and who have large families. Mutual rejection in parent adolescent relations and unfavorable evaluations of parental policy was greatest in autocratically structured relationships."—H. P. Shelley.

2918. Emery-Hauzeur, C., & Sand, E.-A. Enfants désirés et non désirés. [Desired and not desired children.] *Enfance*, 1962, No. 2, 109-126.—Mothers who volunteered participation in researches carried on at the University of Brussels were interviewed shortly after the birth of a child on a variety of subjects. The 215 who admitted not wanting to have a child at that time constituted the sample. Their children were observed at regular intervals beginning when the child was 4 weeks old. Incidence of illness, accidents, developmental quotients, number of visits to the study center, and parent behavior toward the child were compared with data from a similar group of mothers who wanted the child. Statistically significant differences were found and in general it is concluded that the undesired child is more likely to show slower intellectual and motor development, manifest signs of anxiety, desire attention and support, and manifest hostility.—S. S. Marzolf.

2919. Goodstein, Leonard D., & Rowley, Vinton N. (U. Iowa) A further study of MMPI differences between parents of disturbed and nondisturbed children. *J. consult. Psychol.*, 1961, 25(5), 460.—Analysis of MMPI profiles indicates that "par-

ents of disturbed children are themselves more maladjusted than parents of nondisturbed children [see 34: 4393]."—E. R. Oetting.

2920. Hollenbeck, George Penn. (U. Wisconsin) The use of the Relationship Inventory in the prediction of adjustment and achievement. *Dissert. Abstr.*, 1961, 22(6), 2063-2064.—Abstract.

2921. Jones, Eve J. S. The intelligent parents' guide to raising children. New York: Free Press Glencoe, 1962. 288 p. \$4.95.—Originally published in 1959 under the title *Natural Child Rearing*, this is written as a practical manual and guide for parents and is concerned with applications of clinical and child psychology to the everyday problems of rearing children. Major topics covered include: physiological and psychological needs of infancy, comfort and care, independence, freedom-praise-protection, unreasonable expectations, responsibilities, socialization, sexuality, latency period, and adolescence.—D. G. Brown.

2922. Kearsley, R., Snider, M., Richie, R., Crawford, J. D., & Talbot, N. B. (Massachusetts General Hosp., Boston) Study of relations between psychologic environment and child behavior. *Amer. J. Dis. Children*, 1962, 104(1), 12-20.—From a questionnaire answered by parents of 721 children, disturbed children were significantly differentiated from healthy children in terms of 3 indices of parental behavior, viz., contact, authority, and approval. Disturbed children had more parental contact and authority and less approval than did healthy children.—A. B. Warren.

2923. Landis, Judson T. A re-examination of the role of the father as an index of family integration. *Marriage fam. Liv.*, 1962, 24(2), 122-128.—3000 students from college classes in family sociology were surveyed with the Burgess-Wallin marital prediction schedule "to test the general hypothesis that the relationship of children with the father is a more reliable index of family integration than is the children's relationship with the mother, and that the relationship with both parents is an even more accurate index of family integration." Affirmative support was found for both of these hypotheses.—L. Shatin.

2924. Lobrat, M. Sociologie des attitudes éducatives. [Sociology of the educative attitudes.] *Enfance*, 1962, No. 1, 69-83.—A sample of 5000 urban French kindergarten children was selected. For each child information concerning the socio-economic status of his family was obtained. Also responses to questionnaires were obtained from teachers, parents, and the children. Parents were questioned concerning their attitudes toward a variety of management situations and the teachers concerning the child's social maturity. The children's question permitted projective responses. Results were analyzed in relation to the father's occupational level. A smaller sample consisted of 3 groups of children viz. (a) interested in school, (b) apathetic, and (c) turbulent. The major conclusions are that the least desirable parental attitude is the authoritarian and restrictive, and that socialization is fostered by parents who seek to transmit social ideals by persuasion and kindness.—S. S. Marzolf.

2925. McCord, William, McCord, Joan, & Verden, Paul. (Stanford U.) Familial and behavioral correlates of dependency in male children. *Child Developm.*, 1962, 33(2), 313-326.—In using a

sample of boys drawn from the Cambridge-Somerville experiment, it was possible to analyze, through direct observation, some of the antecedents of dependent behavior. The following tentative conclusions were made: Lack of family cohesion and parental rejection of the child heightened the child's overt dependent behavior; frustration of dependency needs can lead to a variety of behaviors dependent upon other experiences within the family; the dependent boys were subject to feelings of inferiority, abnormal fears, sexual anxieties, sadistic tendencies, and were more likely, in adulthood, to experience a psychotic breakdown.—*W. J. Meyer.*

2926. **Mehlman, Benjamin; Volio, Anne M., Jamieson, Betty B., & Gligor, Alice M.** (1015 Robray Dr., Silver Spring Md.) **Childrearing practices in Kent, Ohio.** *Child Developm.*, 1962, 33(2), 391-401.—"The parents of 4-year-old children were interviewed about their child rearing practices. 62 cases were interviewed from the universe of 148 known births during the period July 1, 1950, to June 30, 1951. The data were analyzed in terms of socioeconomic status. 35 of the children were also observed in a permissive situation and given the Stanford-Binet. 'Only the age at which diurnal bladder control training was begun reached a level of statistical significance in our home interview results. Only differences in IQ were statistically significant in our permissive situation results.'—*W. J. Meyer.*

2927. **Missildine, W. Hugh.** (Columbus, O.) **The mutual respect approach to child guidance.** *Amer. J. Dis. Children*, 1962, 104(2), 116-121.—"An approach to problems of child guidance is presented using the concept of mutual respect. It assumes that mental health is facilitated if members of a family unit live in such a way that each pursues his satisfactions in his own unique way and is limited when this pursuit infringes on the rights of the other members. Some of the typical infringements of the culture are discussed. . . . This study (of 97 children) gives some evidence that most families can benefit from just child guidance suggestions alone (without the need for direct therapy).—*A. Barclay.*

2928. **Rheingold, Harriet L., Stanley, Walter C., & Cooley, John A.** (National Inst. Mental Health, Bethesda, Md.) **Method for studying exploratory behavior in infants.** *Science*, 1962, 136(Whole No. 3521), 1054-1055.—An experimental crib has been designed for use in studying the effect of visual feedback upon the exploratory behavior of the human infant. It can be easily adapted to older children, to some animals, and to problems other than the development of exploratory behavior.—*Journal abstract.*

2929. **Sanchez-Hidalgo, Efrain.** (U. Puerto Rico) **La psicología de la crianza.** [The psychology of rearing.] Madrid, Spain: Talleres Tipograficos Ferreira, 1962. 258 p.—In this message to Puerto Rican parents, 33 chapters deal with topics such as: the beginning of life, the family and the socialization process, jealousy, sleep, feeding, elimination, activity and experiences, self-development, maturity, physical activity, egocentrism, negative and aggressive conduct, rejection and protection, discipline, love and praise, punishment, fear and anger, the gang, the emancipation process, moral development, sex identification, puberty and its significance, bodily changes and their significance, adolescence and freedom, and the understanding of adolescence.—*Author abstract.*

2930. **White, Joseph Lewis, Jr.** (Michigan State U.) **Attitudes toward child rearing as related to some psychodynamic factors in mothers.** *Dissert. Abstr.*, 1962, 22(12), 4414-4415.—*Abstract.*

2931. **Winer, Frank.** (New York U.) **The relationship of certain attitudes toward the mother to sex-role identity.** *Dissert. Abstr.*, 1962, 22(12), 4416.—*Abstract.*

2932. **Yarrow, M. R., Scott, P., deLeeuw, L., & Heinig, C.** (National Inst. Mental Health, Bethesda, Md.) **Child-rearing in families of working and nonworking mothers.** *Sociometry*, 1962, 25(2), 122-140.—Interview data were obtained from 50 working and 50 nonworking mothers from comparable, intact, white, economically stable families where employment was a matter of choice. Child rearing practices are not related to work status until maternal motivation and education are taken into account. "Mothers who prefer to work but out of a sense of 'duty' do not work report the most problems in child rearing. Children are under firmer control and are given more responsibilities by working mothers than by nonworking mothers with high school training. This difference does not exist between working and nonworking college-trained mothers. College-trained families tend to compensate for mother's employment away from home by more planned activities with the children."—*H. P. Shelley.*

ADOLESCENCE

2933. **de Trautenberg, Nina Rausch.** **Réactions perceptives d'adolescents de différents groupes cliniques.** [Perceptive reactions of adolescents from different clinical groups.] *Psychol. Franc.*, 1962, 7(1), 42-55.—A group of 70 Ss from 6 clinical groups (schizophrenic, epileptic, neurotic, psychopathic, obsessive, paranoid) were administered a series of perceptual tests (including Pochoirs, Rey, Benton Visual Retention Test, Kohs Block Design Test, Thurstone's Factor S, and some optical illusions). The scores were found to vary both with intelligence and with clinical diagnosis.—*C. J. Adkins.*

2934. **Goldman, Samuel.** (Oklahoma State U.) **Profiles of an adolescent.** *J. Psychol.*, 1962, 54(1), 229-240.—On a questionnaire made up of qualities normally attributed to an adolescent, 153 high school teachers, 224 parents and 956 high school students were asked to rank their perceptions of a real and ideal high school graduate. All 3 groups showed higher within-group agreement on their ideal profile than they did on their real profile. Teachers and parents, and students and parents showed high agreement on their rankings on both the real and ideal profiles. Teachers and students showed higher agreement on the ideal profile than they did on the real profile. A rank order correlation between real and ideal for each group revealed a correlation for teachers of .53, for parents .15, and for high school students .46. These data suggest that adults appear to be more dissatisfied with today's adolescent than the adolescents are of themselves. This difference in level of dissatisfaction emphasizes the conflict which exists between these adults and adolescents.—*Author abstract.*

2935. **Khomenko, K. E.** (Pedagogical Inst., Kharkov, USSR) **Roľ kinestezicheskogo i zritel'nogo kontrolia v vypolnenii dvizhenii det'mi sred-**

nego shkol'nogo vozrasta. [The role of kinesthetic and visual control in the movements performed by children of secondary school age.] *Dokl. Akad. Pedag. Nauk RSFSR*, 1962, No. 2, 85-88.—100 Ss (age 10-14), 50 boys and 50 girls, were instructed to reproduce arm movements of different amplitudes (30°, 45°, and 60°) under the following conditions: visual reproduction of movement, reproduction on the basis of past memory, and production without any reinforcement on the basis of mental representation. It was found that the accuracy increases with age and is affected by the type of control.—*A. Cuk.*

2936. Khon, Alan Robert. (U. Illinois) Self-evaluation as related to evaluations by parents and peers at preadolescence and adolescence. *Dissert. Abstr.*, 1961, 22(5), 1716-1717.—*Abstract.*

2937. Leboutet, Lucie. (Faculté Lettres et Sciences Humaines, Caen, France) Étude génétique de l'acquisition d'un concept scientifique chez des préadolescents et les adolescents. [Genetic study of the acquisition of a scientific concept with preadolescents and adolescents.] *Psychol. Franc.*, 1962, 7(1), 17-25.—2 questionnaire studies (one individual and verbal, the other written and group) were administered to over 800 students in an attempt to investigate the change in understanding of the concept of weight with increasing age from 11 to 18 years. The expected change with age was noted and some of the errors were analyzed.—*C. J. Adkins.*

2938. Miller, Barbara Ann Bowens. (Columbia U.) Effects of father absence and mother's evaluation of father on the socialization of adolescent boys. *Dissert. Abstr.*, 1961, 22(4), 1257.—*Abstract.*

2939. Nelson, E. K. (U. Southern California) Program orientations of a youth studies center. *Sociol. soc. Res.*, 1962, 46(4), 466-474.—The 2 major items considered by the Youth Studies Center of the University of Southern California for program orientations are: (a) the general rationale employed in the selection of program objectives and in developing criteria for assigning priority to potential projects, and (b) the conceptional or theoretical positions that are particularly influential in shaping the content and methodology of the various projects. The 2 main considerations are the integrating themes and the feedback process which provides the basis for integration.—*Journal abstract.*

2940. Stensaasen, Svein. Amerikanske laerebøker i ungdomspsykologi. [American textbooks on adolescent psychology.] *Norsk pedagog. Tidsskr.*, 1962, 46(2), 75-87.—12 texts on adolescence are evaluated in terms of their points of view, coverage, and organization. The books reviewed are by the following authors: G. S. Hall, L. D. & Alice Crow, K. C. Garrison, Elizabeth Hurlock, A. T. Jersild, R. G. Kahlen, P. H. Landis, Marguerite Malm & O. G. Jamison, Ruth Strang, W. W. Wattenberg, and D. P. Ausubel.—*L. Goldberger.*

2941. Winick, Charles. (Columbia U.) Teen-agers, satire and "Mad." *Merrill-Palmer Quart.*, 1962, 8(3), 183-203.—411 regular readers of *Mad* were interviewed to determine attitudes toward the magazine, pattern of reading, and participation in teenage culture. Results were related to content analysis of *Mad* and to current theory on adolescent development.—*E. L. Robinson.*

MATURITY & OLD AGE

2942. Beck, H., Durey, D., & Pacaud, S. Comparaison entre l'auto-jugement du vieillard et le jugement porté sur lui par le personnel le soignant. [Comparison between the self-evaluation of the aged and evaluation of him by the nursing staff.] *Hyg. ment.*, 1962, 51(2), 52-64.—A group of 75 older patients (25 male, 50 female, ages 65-90) evaluated their own condition in regard to general state, appetite, sleep during the night, sleep during the day, tiring, emotional condition, sociability, and leisure occupations. Least accord with evaluations of the nursing staff was found regarding general state, sleep during night, and appetite.—*W. W. Meissner.*

2943. Birren, J. E. (National Inst. Mental Health, Bethesda, Md.) Age differences in learning a two-choice water maze by rats. *J. Gerontol.*, 1962, 17, 207-213.—2 studies were performed to investigate the role of age in rat-learning of a simple 2-choice maze. In the 1st study, "middle-aged and old animals, in comparison with the young, tended to make somewhat more errors on the first trial." In the 2nd experiment, designed "to avoid the problem of position or orientation tendencies raised by the first study," no age differences in learning were observed.—*J. Botwinick.*

2944. Birren, James E., Jerome, Edward A., & Chown, Sheila N. (National Inst. Mental Health, Bethesda, Md.) Aging and psychological adjustment: Problem solving and motivation. *Rev. educ. Res.*, 1961, 31(5), 487-499.—The psychology of aging recently made a considerable advance in organization of information. A significant change in the attitudes of society was shown by the dropping of resistance to research on aging and by movement toward a phase of active encouragement. Aging must be regarded as a basic problem requiring an evolutionary approach, for as early manifestations of aging become understood and controlled, new manifestations will emerge. The results of different test methods indicate that the aged tend to evade, when possible, the analysis of logical forms and the evaluation of arguments on the basis of their logical merits. They prefer to base their conclusions on what they believe to be the truths involved. Data from a large number of cross-sectional investigations encourage the belief that problem-solving abilities of mature persons differ widely with age. (46 ref.)—*F. Goldsmith.*

2945. Boozer, D. Geraldine. (Louisiana State U.) Response sets as indicators of senescence and of psychopathology in old age. *Dissert. Abstr.*, 1961, 22(3), 910.—*Abstract.*

2946. Botwinick, J. (National Inst. Mental Health, Bethesda, Md.) A research note on the problem of perceptual modification in relation to age. *J. Gerontol.*, 1962, 17, 190-192.—Elderly Ss, 69-86 yr., and young Ss, 19-27 yr., were compared "with respect to the point in two series when decisions were reported that an initial percept shifted to a subsequent one." The elderly shifted percepts somewhat sooner in the series than did the younger. This suggests, when viewed in the context of previous studies, "that given appropriate, structured sets, rather than opportunity to develop the sets, older subjects will perform with minimum difficulty."—*J. Botwinick.*

2947. Broadbent, D. E., & Heron, Alastair. (Medical Research Council, Cambridge) Effects of a subsidiary task on performance involving im-

mediate memory by younger and older men. *Brit. J. Psychol.*, 1962, 53(2), 189-198.—"In the present experiment, conducted with groups of young and of old subjects, it was found that the tasks involving memory are very vulnerable to distraction. The older subjects differed greatly among themselves, some being seriously inferior in performance to younger subjects; no such difference in variance appears in the similar task without memory load. When a distracting task is presented together with a main task involving memory, older subjects do very badly at one or the other, whereas young subjects do reasonably at both."—C. T. Morgan.

2948. Caird, William K., Sanderson, Robert E., & Inglis, James. (Queen's U., Kingston, Ontario) Cross-validation of a learning test for use with elderly psychiatric patients. *J. ment. Sci.*, 1962, 108(Whole No. 454), 368-370.—The Inglis paired associates test gives results on Canadian patients much like those on British patients.—W. L. Wilkins.

2949. Carmel, R., Copelman, L.-S., & Copelman, R.-S. Études et recherches en vue de créer les prémisses d'une hygiène mentale adaptée aux différents âges physiologiques de la vieillesse. Le concept d'une crise d'involution physiologique. [Studies and research with a view to creating the premises of a mental hygiene adapted to the different physiological periods of old age. The concept of a crisis of physiological involution.] *Hyg. ment.*, 1962, 51(2), 70-79.—Results of measurement of respiratory capacity, muscular force, erography, motricity, structure of personality (Rorschach), psychogalvanic reflex, and intuition of time are analyzed. The distinction between chronological and biological age is discussed. Experimental indications for preventing biological senility are reviewed briefly.—W. W. Meissner.

2950. Chatagnon, P.-A. (Paris) Organisation social du travail et des occupations pour les personnes âgées. Le prolongation du temps moyen de la vie et les possibilités d'activité du "troisième âge": Revision de la notion de l'âge légal de la retraite. [The social organization of work and occupations for elderly persons. The prolongation of middle-age and the possibilities of activity in the "third age": Revision of the notion of the legal age of retirement.] *Hyg. ment.*, 1962, 51(2), 45-51.—The "3rd age" is considered as a pivotal period between the period of adulthood and retirement. The psychological and social benefits accruing from the gainful employment of this age group are described. The legal age of retirement should be put off 5-10 years (varies in France from 45 to 65).—W. W. Meissner.

2951. Clément, F. Un inventaire d'intérêts pour personnes âgées: Elaboration et résultats. [An interest inventory for the aged: Elaboration and results.] *Rev. Psychol., appl.*, 1962, 12(1), 1-13.—A 2-part interest inventory for work with old people was developed. The 1st part, designed to measure hierarchy of interests, is an elaboration of the Allport-Vernon questionnaire. The 2nd part, based on expert opinion, calls for degree of interest in 33 statements in the past and the present. It was administered to 18 men and women under 45, 9 men and 7 women between 45 and 65, and 9 men and 15 women over 65. Over a 10-day period the test-retest reliability for the 1st part was .62 for the men and .77 for the women; for the 2nd part, .98 and .97. With age there was a

drop in interest for intellectual activities and an increase in interest in their own health.—W. W. Wattenberg.

2952. Jarvik, Lissy, F., Kallmann, F. J., & Falex, A. (Columbia U.) Intellectual changes in aged twins. *J. Gerontol.*, 1962, 17, 289-294.—Longitudinal psychometric data of senescent twins were analyzed with respect to intra-pair correlations, comparisons of twins, general population norms, and age changes. No significant change in intrapair correlations were found, twins performance scores were at least as high as those of the norms of singletons, and the test battery reflected both age decrements and age increments of performance.—J. Botwinick.

2953. Katz, L., & Crook, G. H. (Langley Porter Neuropsychiatric Inst., San Francisco, Calif.) Use of the Kent E-G-Y with an aged population. *J. Gerontol.*, 1962, 17, 186-189.—"Tentative Kent E-G-Y norms for 253 individuals aged 60 and over, matched for education and employment status with the general United States urban population in the same age range, are presented separately for men and women."—J. Botwinick.

2954. Kendall, B. S. (Washington U. School Medicine) Memory-for-designs performance in the seventh and eighth decades of life. *Percept. mot. Skills*, 1962, 14(3), 399-405.—A sample of 36 brain-disordered Ss 61-80 yr. of age was matched with a sample of 36 control Ss for age, education, and occupation, and the 2 groups were compared with respect to performance on the Memory-for-Designs Test. MFD Test scores significantly differentiated between an aged brain-disordered and an aged control group. Qualitative features found earlier in a larger, younger sample also appeared with greater frequency in the work of the brain-disordered sample. However, there was more overlap; the scores of the controls (% of whom were psychotic) tended to be disproportionately higher than those of control Ss aged 16 to 60 yr. Qualitative features suggestive of brain syndrome also occurred more often in the drawings of these control Ss than in those of their younger counterparts.—W. H. Guertin.

2955. Levinson, Boris M. (Yeshiva U.) Positional and figural errors made by the aged or Raven Coloured Progressive Matrices. *J. genet. Psychol.*, 1962, 100(2), 183-192.—Assuming that aging, per se, is not the critical determinant of test performance, a study was made of the positional and figural errors on Raven Coloured Progressive Matrices made by 143 men and women ranging in age from 60-69 and 70-84. Their positional choices are different from those made by children. The medial position was preferred by 40.75%. This was followed by the left lateral, 32.65%, and the right lateral, 26.60%. There is some accentuation of the medial position from 40.13% of choices for aged 60-69 to 41.39% of choices for ages 70-84. There is no difference between the 2 groups in sensible errors. However, there is a statistically insignificant decrease in "repetitive" errors made by the 70-84 group.—Author abstract.

2956. Maddox, G. L. (Duke U. Medical Cent.) Some correlates of differences in self-assessment of health status among the elderly. *J. Gerontol.*, 1962, 17, 180-185.—Data of 251 noninstitutionalized elderly Ss suggest that self-assessment of health status is related to objective state of health, anxiety about

health, and poor adjustments to the environment.—*J. Botwinick.*

2957. Neugarten, Bernice L. (U. Chicago) "Le *satisfaction de vivre*: Une mesure de la santé mentale dans la vieillesse. ["Satisfaction with life": A measure of mental health in old age.] *Hyg. ment.*, 1962, 51(2), 65-69.—A group of 177 elderly men and women of the middle and working classes were interviewed to determine (a) the degree of pleasure in daily activities, (b) the extent to which they felt life had meaning, (c) their feeling of having achieved the principal ends of existence, (d) the extent to which they had a positive self-image, and (e) the degree of humor and optimism they maintained. These were combined into a Life Satisfaction Rating (LSR). LSR does not depend on age, shows a moderate relation to socio-economic status, shows no difference between sexes, tends to be lower in celibate, divorced, or widowed persons. LSR is likewise positively but not strongly related to the level of social interaction.—*W. W. Meissner.*

2958. Obrist, W. D., Busse, E. W., Eisdorfer, C., & Kleemeier, R. W. (Duke U. Medical Cent.) Relation of the electroencephalogram to intellectual function in senescence. *J. Gerontol.*, 1962, 17, 197-206.—"No significant relationships were observed between EEG and intelligence scores in community volunteers. In contrast, hospital subjects and residents from the old age home showed small but significant correlations."—*J. Botwinick.*

2959. Pacaud, S., & La Halle, M.-O. (U. Paris) Quelques données sur les attitudes dans la vieillesse, à l'égard de la profession qui fut exercée au cours de la vie et à l'égard de la profession rêvée dans la jeunesse. [Some thoughts on the attitudes, among the elderly, in regard to the profession they exercised in life and in regard to the profession they dreamed of in youth.] *Hyg. ment.*, 1962, 51(1), 25-40.—A group of 56 men and 52 women (ages 56-86 years) were drawn from a variety of professions and questioned about their professional interest. The 17 Ss who followed the profession of their dream showed the greatest interest in their work. Further, there is a demonstrable relation between psychic equilibrium and the intensity of professional interest shown in the course of life.—*W. W. Meissner.*

2960. Panayotopoulos, D. Influence du milieu hospitalier psychiatrique sur l'évolution des troubles mentaux séniles. [The influence of the psychiatric hospital milieu on the evolution of senile mental disturbances.] *Hyg. ment.*, 1962, 51(1), 13-24.—Our ideas about geriatric psychiatry have been strongly influenced by physiological notions of the aging process. Senile diseases are strongly influenced by other factors. Hospitalization represents an affective shock and a psychological devaluation which the patient strongly resents. Adaptation to the milieu of a psychiatric hospital is especially difficult for older people, and this, together with the shock of hospitalization, often puts them in a terrible depression. Ways of counteracting these effects are discussed.—*W. W. Meissner.*

2961. Reed, H. B., Jr., & Reitan, R. M. (Indiana U. Medical Center) The significance of age in the performance of a complex psychomotor task by brain-damaged and non-brain-damaged subjects. *J. Gerontol.*, 1962, 17, 193-196.—Brain damaged and non-brain-damaged Ss aged 45-65 yr. were compared

to matched Ss 21-44 yr., with respect to level and improvement scores on the Sequin-Goddard form-board. Tentative support was found "for an hypothesis of similarity between the effects on problem-solving behavior of clinically established brain damage and those of the normal aging process."—*J. Botwinick.*

2962. Reichard, Suzanne; Livson, Florine, & Petersen, Paul G. (U. California, Berkeley) Aging and personality: A study of eighty-seven older men. New York: Wiley, 1962. xv, 237 p. \$7.95.—The role of personality in adjustment to aging within a relatively homogeneous socioeconomic group, age range 55-84 (median, 67), and the significance of this life period as a stage in personality development. Both retired and nonretired manual workers were given a series of depth interviews and psychological tests; psychoanalytic interpretations of data were made. Through correlation and cluster analysis, 5 personality patterns emerged identifying differential adjustments to the aging process. Theoretical implications of such patterns were discussed.—*C. W. Page.*

2963. Reiter, Sidney Randolph. (Columbia U.) The relationship of angry and fearful behavior to perception among institutionalized geriatric residents. *Dissert. Abstr.*, 1961, 22(5), 1718-1719.—*Abstract.*

2964. Stein, Carroll I. (U. Minnesota) The GATB: The effect of age on intersample variations. *Personnel Guid. J.*, 1962, 40(9), 779-783.—Based on 1431 job applicants for jobs in Minnesota, Aptitude V(Verbal) showed a sharp increase up to age 40. Intelligence (G) showed little decrease from age 20 to 40. Spatial (S), Form Perception (P), and Manual Dexterity (M) showed steady decline with age. Motor Coordination (K) showed no age effect until age 40, then decreased sharply. Significant sex differences were found on "G," due perhaps to selection factors.—*S. Kavruck.*

2965. Taubenhau, L. J., & McCormick, J. G. (Brookline Health Dept., Mass.) The aging lodging house resident. *J. Gerontol.*, 1962, 17, 310-314.—"In general, lodgers were found to be older widows, living alone, with low income, who made proportionately less use of health services than did non-lodgers."—*J. Botwinick.*

2966. Webb, Wilse B., & Agnew, Harman W., Jr. (U. Florida) Sleep deprivation, age, and exhaustion time in the rat. *Science*, 1962, 136(Whole No. 3522), 1122.—Male rats were maintained on a constantly moving wheel in a study of prolonged sleep deprivation. The results obtained revealed a striking negative relationship between age and resistance to exhaustion.—*Journal Abstract.*

2967. Werboff, Jack, & Havlena, Joan. (Animal Behavior Lab., Lafayette Clinic) Effects of aging on open field behavior. *Psychol. Rep.*, 1962, 10(2), 395-398.—"Male and female Sprague-Dawley rats were evaluated on the open field test at 90, 180, 360, and 540 days of age. The results confirm previous reports that activity and emotionality decline with increasing age, with the females exhibiting higher activity and emotionality scores than the males. The need for additional data at later ages than those reported here was discussed."—*B. J. House.*

2968. Zborowski, M. (Age Cent. New England, Boston) Aging and recreation. *J. Gerontol.*, 1962,

17, 302-309.—"The major conclusion . . . is that aging has a rather insignificant influence upon people's recreational patterns and preferences."—J. Botwinick.

SOCIAL PSYCHOLOGY

2969. Allport, F. H. (Syracuse U.) **A structural-conceptual conception of behavior: Individual and collective: I. Structural theory and the master problem of social psychology.** *J. abnorm. soc. Psychol.*, 1962, 64(1), 3-30.—The 1st of a series of 2 papers discussing a theoretical approach to conceptualization of theory and principles in social psychology. The present formulation, an extension of a theoretical approach begun in 1942 (Allport, 1942) and elaborated elsewhere (Allport, 1954, 1955) involves understanding social phenomena as a function of "collective structuring." Such a concept is offered as a substitute for other terms implying the group as a referent point, e.g., social norm, life space, group mind, etc. This formulation is necessitated by a need to explain the empirically-derived influence on individual behavior in and out of groups without resorting to epiphenomena. Collective structuring implies the interrelating of individual frames of reference with those of others, born out of a personal involvement and "heightened probability of satisfactions through integrated . . . behaviors."—G. Frank.

2970. Davis, F. James; Foster, Henry H., Jr., Jeffery, C. Ray, & Davis, E. Eugene. (Hamline U.) **Society and the law.** New York: Free Press Glencoe, 1962. vi, 488 p. \$6.95.—A "study of the law in the context of society" produced by "the combined labors of two sociologists, a law teacher, and a practicing attorney." Part I Covers "Law and Social Organization" (3 chapters); Part II, "Law and Social Change" (8 chapters); and Part III, "Lawyers as a Professional Group" (2 chapters). Suggested readings and research topics are included with each chapter. (Case, name, and subject indices)—R. S. Harper.

2971. Diesing, Paul. (U. Illinois) **Reason in society: Five types of decisions and their social conditions.** Urbana, Ill.: Univer. Illinois Press, 1962. 262 p. \$5.75.—The main contention of the author is that there are at least 5 types of rationality in decision making in social behavior. 5 types of rationality are identified and given a comprehensive discussion and analysis. They are: technical, legal, economic, social, and political. The application and limitations of the different types are critically explored. One of the distinctions made is that social rationality is almost entirely unconscious whereas economic, technical, and legal are conscious.—E. D. Lawson.

2972. Kuethe, J. L. (Johns Hopkins U.) **Social schemas.** *J. abnorm. soc. Psychol.*, 1962, 64(1), 31-38.—"Unit forming principles in social perception can be regarded as social schemas or response sets to the extent that they function to structure ambiguous situations involving human objects. . . . The present investigation is concerned with those social schemas that determine whether or not objects are thought of as belonging together." Ss grouped 9 different objects on a neutral ground, in any way they wanted. The results indicated that response sets determined the grouping, so much so, that in a 2nd phase of the

experiment the set was strong enough to cause S to deviate from reconstructing E's sorts.—G. Frank.

2973. Nass, Gilbert D. (Presbyterian-St. Luke's Hosp. School Nursing, Chicago) **Literature on measurement of the self concept: A sociologist's addendum.** *J. counsel. Psychol.*, 1961, 8(4), 368.—Reference is made to a considerable body of writing and research on the self-concept within the field of sociology, particularly the work of Kuhn.—E. R. Oetting.

2974. Stephenson, W. (U. Missouri) **"Ideal" types.** *Psychol. Rec.*, 1962, 12, 9-16.—Century old debate exists concerning the possible status of types (society, personality, etc.) as "ideas or hypotheses or acceptable science or not." Another subscribes to Max Weber's point of view that ideal types are conceptual and "primary abstractions from social and historical phenomena . . . at best elements of a social science." The subjective constructions which have subsequently developed in the social sciences "can be brought to terms with truly scientific procedures . . . along Q-methodological lines."—R. J. Seidel.

CULTURE & CULTURAL RELATIONS

2975. Bharucha-Reid, Rodabé P. (U. Oregon) **Appearance and reality in culture.** *J. soc. Psychol.*, 1962, 57(1), 169-193.—A critical appraisal of some cross-cultural methods, utilizing as an example one in a series of studies of foreign students (Indian, Japanese, Mexican, and Swedish) in the United States. It is pointed out that a noncomparative, ahistorical and "hollow man" approach leads to studies wanting in experimental design, a misrepresentation of a foreign culture, and a neglect of significant variables. The responsibility of the social scientist in not permitting misrepresentation of alien cultures which lead to the detriment of student exchange programs, technical assistance, and international relations is discussed. It is argued that those dealing with the "minds of men" can no more afford a lack of responsibility than those experimenting in the biological or physical sciences.—Author abstract.

2976. Clauss, L. F. (Oberursel, Taunus, Germany) **Blick in die arabische Welt.** [A look into the Arabic world.] *Jb. Psychol. Psychother. med. Anthropol.*, 1960, 7(1-2), 174-183.—The observations made during the trip to study various sociological aspects of current Arab countries are reported here in a semi-literary style. Personal impressions are discussed, theoretical speculations advanced concerning the effect upon the geographical, political, and religious factors upon various Arabic nations.—V. J. Bielewskas.

2977. Crowther, Betty. (U. Wisconsin) **Note on religious group differences in interaction profiles: A replication study.** *Psychol. Rep.*, 1962, 10(2), 459-464.—Protestants and Jews were compared on behavior scores during 5-person discussion sessions and on self- and peer-ranking data. Ss were college students: 25 Protestants, 20 Jews, and 5 Catholics. Differences were not significant but were consistent with data reported by Stimson (see 35: 2132). The suggestion is made that Protestants are more socially-oriented and that Jews are more task-oriented.—B. J. House.

2978. Das, J. P. (Utkal U., Cuttack, India) **Ethnocentrism and stereotypes among Santhals.**

J. soc. Psychol., 1962, 57(1), 79-84.—Santhals, an aboriginal tribe inhabiting Midnapore, West Bengal, were interviewed in order to elicit information about their stereotypes, parent-child relationships, authority pattern, etc. It was found that they were quite democratic and rational. They did not like the educated Hindus who live around them. Nevertheless, they have accepted many Hindu ideals and borrowed their dress and ornaments from the Hindus.—*Author abstract.*

2979. Epstein, Charlotte. **Intergroup relations for police officers.** Baltimore Md.: Williams & Wilkins, 1962. ix, 194 p. \$3.25.—Conflicts between groups and between individuals because they are members of groups are analyzed from psychological, sociological, and anthropological viewpoints. The significance of racial, religious, and nationality differences and their effects on prejudice, discrimination, and human nature are explored. Suggestions for further reading, problems to solve, and cases to analyze are given in this basic text and workbook.—*C. W. Page.*

2980. Kardiner, A., & Ovesey, L. **The mark of oppression: Explorations in the personality of the American Negro.** Cleveland, O.: World Publishing (Meridian), 1962. xix, 396 p. \$2.25.—A paperback edition of a book originally published in 1951 (see 26: 233).

2981. Meyer, E. (von Ossietzky-Str. 1, Göttingen, Germany) **Zur Begründung einer völkerpsychologischen Methode.** [A new method for the assessment of national character.] *Psychol. Beiz.*, 1962, 7 (1), 54-72.—Various examples of the necessity for collecting characteristic criteria describing the very essence of a foreign people are given. To avoid indulging in precipitous and subjective judgments, a method is developed capable of systematically assessing the specific forms of behavior and ways of life of foreign people. (English & French summaries)—*H. J. Priester.*

2982. Norbeck, Edward; Walker, Donald E., & Cohen, Mimi. (Rice U.) **The interpretation of data: Puberty rites.** *Amer. Anthropologist*, 1962, 64, 463-485.—A large-scale, cross-cultural comparison of male initiation ceremonies, offering specific interpretation to account for presence and absence of the rites plus generalizations on the significance of the rituals, has recently been published by Whiting and collaborators. Here, Whiting's methods and interpretations are examined, and the question of validity is discussed. There appear to be few accounts of exotic cultures that provide adequate data to go beyond the series of hypotheses as to key assumptions concerning the existence of affective ties and psychological conflicts. It seems evident that the loose category of events included in puberty rites cannot be explained by any single set of circumstances or by reference to any one theory such as the analytic interpretation of the edipus complex.—*R. L. Sulzer.*

2983. Pasamanick, Benjamin. (Columbus Psychiatric Inst. & Hosp., O.) **Comparative psychological studies of Negroes and whites in the United States: A clarification.** *Psychol. Bull.*, 1962, 59(3), 243-247.—Dreger and Miller (see: 35: 4875) criticize a paper by Pasamanick (see: 21: 948) in terms of sampling and skin color estimates. This paper is an answer to these criticisms and a general discussion of the issues involved.—*W. J. Meyer.*

2984. Reynaud, Pierre-Louis. **Psychologie du peuple tunisien.** [The psychology of the people of Tunisia.] *Rev. Psychol. Peuples*, 1961, 16(4), 368-377.—Observations concerning attitudes and abilities of the people of Tunisia with respect to the economic and political development of a new state.—*N. B. Gordon.*

2985. Rosenthal, Erich. (Queens Coll., Flushing, N. Y.) **Jewish fertility in the United States.** *Eugen. Quart.*, 1961, 8(4), 198-217.—The fertility rates of Jews in the United States is compared with Protestants and Catholics and analyzed with respect to urban-rural residence, education of the mother, occupation and income of the father, and compared with Canadian and British statistics. The article concludes with some discussion of family planning practices.—*S. G. Vandenberg.*

2986. Schwitzgebel, R. (Brandeis U.) **The performance of Dutch and Zulu adults on selected perceptual tasks.** *J. soc. Psychol.*, 1962, 57(1), 73-77.—12 Dutch-speaking and 12 Zulu Ss were tested in a laboratory situation on several perceptual tasks. All Ss were male residents of South Africa between the ages of 19 and 25 with less than 6 years of formal education. The tasks included: length estimation of simple geometric figures, matching size of circles, estimation of time passage, reporting autokinetic effects, and locating Gottshalt embedded figures. Zulus were shown to underestimate figures and time significantly more than Dutch Ss. Most notable, however, was the relative inability of Zulus to locate embedded figures. The author concludes "... that certain perceptual organizations are characteristic of cultural groups, that even relatively 'simple' processes may be affected by environmental conditions, and furthermore that some of the perceptual skills may not be reacquired even after extensive education."—*Author abstract.*

2987. Wolfe, John B., & Horn, Paul. (U. Mississippi) **Racial friction in the deep south.** *J. Psychol.*, 1962, 54(1), 139-152.—In an attempt to ascertain how racial tension originates, detailed descriptions of personal involvement in inter-racial altercations were obtained from more than 1000 Negroes and whites. The Ss were native to a region wherein the 2 races were about equally numerous. The data were categorized and presented in frequency tables showing race and sex comparisons. Occurrence of friction at the individual level was not sufficient to explain racial animosity.—*Author abstract.*

SOCIAL STATUS & STRUCTURE

2988. Coleman, J. (Johns Hopkins U.) **Comment on Harrison White, "Chance Models of Systems of Casual Groups."** *Sociometry*, 1962, 25(2), 172-176.—"White [see 37: 3000] has made explicit a wide range of processes, all giving rise to the same equilibrium distribution as our initial process, for systems of freely-forming groups. His paper also clarifies and corrects a number of confusions and inaccuracies in our paper. We believe the process we postulated more nearly conforms to what goes on in many systems of freely-forming groups than do the alternative processes he proposes. But our view is a biased one, and clearly it is necessary to carry out some detailed observations, to learn just what processes are in fact operative. By direct estimation of joining and leaving rates for different-sized groups

and in different population densities, it would be possible to learn what kinds of parameters do in fact govern systems such as these."—*H. P. Shelley.*

2989. Haller, A. O., & Wolff, Carole Ellis. (Michigan State U.) **Personality orientations of farm village, and urban boys.** *Rural Sociol.*, 1962, 27(3), 275-293.—"The results of the present study provide a clear demonstration of the hypothesis that personality orientations are related to residence."—*H. K. Moore.*

2990. Kammeyer, Kenneth. (U. California, Davis) **A comparative study of decision making in rural communities.** *Rural Sociol.*, 1962, 27(3), 294-302.—Analysis of attitudes in 110 small communities toward school district reorganization proposals that would have led to their losing their local high school, suggested that distance to be traveled by the children to the new school did not influence opposition, but that they were swayed by a feeling that their children would be less likely to win scholastic and athletic honors.—*H. K. Moore.*

2991. Photiadis, John D. (U. Minnesota) **Motivation, contacts, and technological change.** *Rural Sociol.*, 1962, 27(3), 316-326.—183 South Dakota farmers were motivated to seek contacts with agricultural agents and directly learn agricultural technology, more by social status than by money.—*H. K. Moore.*

2992. Queen, Stuart A. (Washington U.) **The function of social stratification: A critique.** *Sociol. soc. Res.*, 1962, 46(4), 412-415.—Some contemporary writers on social stratification discuss its "function" as "integrative, instrumental, and adaptive." Supporting evidence is usually lacking or unconvincing. Examination of historical data warrants challenging this current sociological orthodoxy.—*Journal abstract.*

2993. Sinha, A. K. P., & Upadhyaya, O. P. (Patna U., Bihar, India) **Eleven ethnic groups on a social distance scale.** *J. soc. Psychol.*, 1962, 57(1), 49-54.—This study was undertaken to find out the reactions of 400 male and 100 female students towards Indians, Americans, Burmese, Chinese, English, French, Germans, Japanese, Negroes, Pakistanese, and Russians, with respect to 6 categories of relationship on a modified form of the Bogardus Social Distance Scale. The findings were as follows: (a) According to favorable marriage reactions, the Indians secured the highest position, and the Chinese the lowest. The French, the Americans, and the English occupied 2nd, 3rd and 4th positions, respectively. (b) According to extreme negative reactions no S showed attitudes of antipathy toward the Indians. The attitude of maximum antipathy was displayed toward the Chinese. (c) The average social distance score of the female Ss was lower than that of the male Ss for all 11 ethnic groups. Male students, however, showed favorable and unfavorable attitudes toward the different ethnic groups in about the same preferential order as the females.—*Author abstract.*

2994. Smith, M. G. **West Indian family structure.** Seattle, Wash.: Univer. Washington Press, 1962. vii, 311 p. \$6.00.—From age and sex composition of sample households and other data gathered in 5 communities of the Caribbean area, both urban and rural, 3 types of family organization appear according to definition of mating and parenthood obligations: (a) marriage with male responsibility for

support of wife's offspring but not male residential obligation, (b) sexual union with female responsibility for children and no residential obligation for male, (c) consensual cohabitation with joint responsibility for issue during period of cohabitation. The presence or absence of each form depends on local cultural definition rather than ecological factors.—*L. M. Hanks.*

2995. Strauss, Murray A. (U. Minnesota) **Work roles and financial responsibility in the socialization of farm, fringe, and town boys.** *Rural Sociol.*, 1962, 27(3), 257-274.—Farm boys did more home chores than the other 2 groups, but fewer had outside jobs and were less often given the responsibility of providing for their own needs with the money they had.—*H. K. Moore.*

2996. Tannenbaum, Arnold S. (U. Michigan) **An event-structure approach to social power and to the problem of power comparability.** *Behav. Sci.*, 1962, 7(3), 315-331.—Power is defined within the framework of the event-structure theory of Allport. The relevance of this definition for comparing power manifest in a wide variety of situations is noted. The theoretical and empirical implications of this analysis are presented. (30 ref.)—*J. Arbit.*

2997. Taylor, Grady W. (Alabama Extension Service, Tuskegee Inst.) **An analysis of certain social and psychological factors differentiating successful from unsuccessful farm families.** *Rural Sociol.*, 1962, 27(3), 303-315.—Both successful and unsuccessful groups possess the same characteristics but in varying degrees.—*H. K. Moore.*

2998. Vaughan, Graham M. (Victoria U., Wellington, New Zealand) **The social distance attitudes of New Zealand students towards Maoris and fifteen other groups.** *J. soc. Psychol.*, 1962, 57(1), 85-92.—80 white, New Zealand-born students were tested for their social distance attitudes towards Maoris and 15 other national groups. It was found that the Ss' scores on a social distance scale correlated significantly with the extent to which the groups were judged to be physically similar to white New Zealanders. More social distance was accorded to Maoris than to members of groups of Northwestern European stock. This distance was increased when marriage preferences in particular were considered. These trends were attributed to the importance of race as a determinant of social distance.—*Author abstract.*

2999. Verma, R. M. **Development of a tool to appraise socio-economic status.** *J. psychol. Res., Madras*, 1962, 6(1), 35-38.—The schedule devised gives respondent's position on a 5-point scale. The reliability correlations (correlations between different parts and of the parts with the total schedule) range from .46 to .62. Correlation between scores on the schedule and assessors' ratings (validity indicator) was .289.—*U. Pareek.*

3000. White, H. (U. Chicago) **Chance models of systems of casual groups.** *Sociometry*, 1962, 25(2), 153-172.—"A wide variety of assumptions about arrival and departure processes are shown to lead to the same shape of equilibrium size distributions (the truncated Poisson) for a system of groups of people in casual interaction. Individual arrivals at and departures from groups are always assumed to be independent and to follow negative exponential

distributions in time. . . . we assume single-member groups can join other groups in the system, but we distinguish several mechanisms. We derive exact equations in state probabilities and develop approximate solutions for expected numbers of groups of given sizes. The subtle relations between model parameters and fitting constants are discussed in detail. Simons' paper on the Yule distribution has a different goal from ours, while Coleman and James' paper is misleading."—*H. P. Shelley.*

3001. **Williamson, Robert C.** (Los Angeles City Coll.) **Social class determinants of perception and adjustment in an adolescent and adult sample: El Salvador.** *J. soc. Psychol.*, 1962, 57(1), 11-21.—2 Salvadorean urban samples, adolescent ($N = 352$) and adult ($N = 97$), each divided into a lower and middle or upper socio-economic group, were given a questionnaire. In addition to social characteristics, the results for the adolescents included: (a) The upper group significantly estimated a larger income as necessary for membership within a given class. (b) Prestige ratings of 20 occupations agreed with other national samples and showed no class differences. (c) Projections of happiness to individuals and marriages about which the S knew showed significantly lower ratings by the lower class and by females. Marriages were rated as being unhappier than individuals. Similar differences were found for the adult sample but not significantly so. (d) Differences, although insignificant, were found in the images of the past, present, and future. The study is possibly most important for its apparently successful application of the questionnaire method in a culture previously considered off-limits to this technique because of the supposed lack of integrity in Ss' responses.—*Author abstract.*

ATTITUDES & OPINIONS

3002. **Berger, Peter L.** (Hartford Seminary, Conn.) **The precarious vision.** New York: Doubleday, 1961. 238 p. \$3.95.—The solid structure of social existence is usually taken for granted until some experience may alter the perspective to see this society as a fragile tissue of man-made conventions. Looking at our society with this precarious vision, sociologist Berger shows how this view may liberate us from bondage to the social fictions so staunchly upheld by the institutions of our society. Religion as a social institution gives an illusion of certainty to the dramatic fictions, adding its sanction to the bad faith of moral self-deception as in capital punishment, segregation, and war. The Christian faith is not religion in this sense, but joins with the anti-religious critique of atheism in unmasking the social fictions with truer perception. Christian faith because it is redemptive reveals society as comedy, in which men are stripped of their social roles and pretensions to transcend deadly earnestness in hope and joy.—*P. E. Johnson.*

3003. **Blood, Robert O., Jr., & Nicholson, Samuel O.** **International dating experiences of American women students.** *Marriage fam. Liv.*, 1962, 24(2), 129-136.—99 female students at the University of Michigan who had dated a foreign student at any time in the past, were interviewed to ascertain their motivation for this dating. Neither parental rebellion nor a crusade against prejudice were impor-

tant motivational factors in these students' international dating.—*L. Shatin.*

3004. **Brenner, Leon Oscar.** (Boston U.) **Hostility and Jewish group identification.** *Dissert. Abstr.*, 1961, 22(4), 1248.—*Abstract.*

3005. **Brown, L. B.** (U. Adelaide, England) **A study of religious belief.** *Brit. J. Psychol.*, 1962, 53(3), 259-272.—In an empirical study of religious belief, measures of strength of belief in an Australian student population were compared with beliefs in other areas and with personality and attitudinal variables. The correlation matrix shows that the religious belief measures belong together and that religious belief has its best relationships with institutionalization and denomination on the one hand and with authoritarianism on the other. The personality measures of anxiety were found to be related to dogmatism in opinionative and factual matters. In this way Thouless' finding that religious belief statements are ascribed to more strongly than are statements of fact has been confirmed, and extended. It is concluded that religious belief is a relatively isolated cognitive system requiring strong social support for its maintenance.—*Journal abstract.*

3006. **Dean, D. G., & Reeves, J. A.** (Dennison U.) **Anomie: Comparison of a Catholic and a Protestant sample.** *Sociometry*, 1962, 25(2), 209-212.—"Some 60 years ago Durkheim suggested that Protestants exhibited a greater degree of anomie than Catholics. A sample of 160 Catholic college women and 160 Protestant college women was drawn, with 75.6 per cent ($N = 121$) and 84.4 per cent ($N = 135$) responses, respectively. The mean anomie or normlessness score of Catholic women was 3.77, the Protestant 8.63, CR 11.55 (far beyond the .01 level of significance). Slight differences in the mean North-Hatt prestige score of the respondents' fathers apparently minimized the observed differences between the two groups."—*H. P. Shelley.*

3007. **Goldman, Morton; Warshay, Leon H., & Biddle, Ellen H.** (U. Kansas City) **Residential and personal social distance toward negroes and non-negroes.** *Psychol. Rep.*, 1962, 10(2), 421-422.—A modification of the Bogardus Social Distance Scale was administered to 13 samples, differing in age, education, sex, religion, and minority group membership, from the population of a midwestern city. All 13 samples preferred personal over residential contacts with Negroes, and residential over personal contact with Protestant, Catholic, and Jews. A possible interpretation of the results is suggested.—*B. J. House.*

3008. **Gorfein, David S., & Anderson, Larry M.** (Utah State U.) **A note on the validity of the Bernberg Human Relations Inventory.** *J. Psychol.*, 1962, 54(1), 65-68.—Bernberg has presented the Human Relations Inventory (HRI) as an instrument to measure conformity. In an attempt to validate the instrument, scores on the inventory were compared to the results of 2 influence experiments. Results only partially supported the HRI as a measure of conformity. The instrument failed to correlate with a measure of Social Desirability. It is suggested that since there is a need for a good paper-and-pencil test of conformity, further study of this instrument is warranted.—*Author abstract.*

3009. Isherwood, Stanley. (Dalhousie U., Canada) Effects of a clergy examiner on responses to a religious attitude questionnaire. *Bull. Maritime Psychol. Ass.*, 1962, 11(1), 7-10.—One group of 9th grade students who knew the examiner was a clergyman did not score differently from another group who did not know. Significant differences between sexes on the lie score found girls giving a better impression of themselves.—C. W. Page.

3010. Kundu, Gorachand. Recent method for attitude measurement. *J. psychol. Res.*, Madras, 1962, 6(1), 15-24.—The method devised by the author and called factor-dividing-rating is illustrated to show the utility of the weightage method, the graphic conditions, and the deduction of the formula.—U. Pareek.

3011. Levonian, Edward (U. California, Los Angeles) The use of films in opinion measurement. *Audiovis. Commun. Rev.*, 1962, 10(4), 250-254.—"To measure opinions about India, a film-questionnaire was prepared, with each item consisting of a motion picture scene of India in color, and an associated question. . . . This film-questionnaire was administered to 252 college students. A factor analysis of the items revealed 10 major factors." 8 factors were composed of depictive items and 2 of interpretive items. "Situations in which the film-questionnaire may have advantages over the conventional paper-questionnaire" are described.—R. E. Schutz.

3012. Lindenfeld, Frank. (Columbia U.) An analysis of political involvement. *Dissert. Abstr.*, 1962, 22(12), 4426-4427.—Abstract.

3013. Maslow, Albert R. (American U.) Some relationships between social conformity and self perception. *Dissert. Abstr.*, 1961, 22(4), 1285.—Abstract.

3014. La Fave, Lawrence. (U. Oklahoma) Humor judgments as a function of reference groups: An experimental study. *Dissert. Abstr.*, 1961, 22(4), 1284.—Abstract.

3015. Middleton, R., & Putney, S. (Florida State U.) Religion, normative standards and behavior. *Sociometry*, 1962, 25(2), 141-152.—Questionnaires administered anonymously to 260 male and 294 female, predominantly Protestant, white, middle class college students provide data assessing the relationship between religion and morality. S indicated if he felt he would violate his ethical principles if he violated each of a list of traditional and common social standards. Believers more than skeptics regard anti-ascetic actions as wrong and are less likely to engage in them. "They do not differ in how often they believe anti-social actions are wrong, or in how likely they are to engage in them. Nor do they differ in the frequency with which they violate their own standards—ascetic or social—by engaging in actions which they . . . regard as wrong." The assumption that religious sanctions are essential for basic social norms is not supported.—H. P. Shelley.

3016. Miner, J. B. (U. Oregon) Conformity among university professors and business executives. *Admin. Sci. Quart.*, 1962, 7(1), 96-109.—The upper strata of the business and academic worlds are considered in this paper. Using the Tomkins-Horn Picture Arrangement Test the author finds that conformity and deviance occur in both occupa-

tional groups, and that both are on the average less conforming than the typical college graduate. This relative nonconformity seems to be an artifact associated with age differences. Professors and executives are, in general, no less conforming than others when age is held constant.—V. S. Sexton.

3017. Rosenthal, R., & Persinger, G. W. (U. North Dakota) Let's pretend: Subjects' perception of imaginary experimenters. *Percept. mot. Skills*, 1962, 14(3), 407-409.—14 Ss were asked to pretend they had participated in an experiment in person perception and were asked to rate their imaginary E on 26 variables. Correlations between pretending Ss' ratings of their imaginary E and real Ss' ratings of their Es suggested the operation of a stereotype effect in Ss' perceptions of Es. Additional evidence suggested that stereotyping alone could not account for the obtained data and that use of ratings of Es by Ss was a meaningful and useful procedure.—W. H. Guertin.

3018. Schultz, Duane Philip. (American U.) Primacy-recency as a function of time and of level of awareness of manipulatory intent. *Dissert. Abstr.*, 1962, 22(12), 4428.—Abstract.

3019. Sherif, Carolyn Rose Wood. (U. Texas) Established reference scales and series effects in social judgment. *Dissert. Abstr.*, 1961, 22(6), 2083-2084.—Abstract.

3020. Shuval, Judith T. (Israel Inst. Applied Social Research) Ethnic stereotyping in Israeli medical bureaucracies. *Social. soc. Res.*, 1962, 46(4), 455-465.—The problem concerns a certain conflict between an assumed societal norm of relatively mild prejudice expressed by widespread stereotyping of North African immigrant, and the universalistic norm of the medical profession which proscribes a differential orientation to patients in terms of their ethnic background. Negative stereotyping is shown to increase when the strain of the medical bureaucratic system on the physician increases. It appears to be easier to maintain a universalistic norm within the context of a smaller bureaucracy, probably because the strain on the professional is less marked.—*Journal abstract.*

3021. Thompson, Daniel C., & Lief, Harold I. Development of attitudes in respect to discrimination. *Amer. J. Orthopsychiat.*, 1962, 32(1), 74-88.—A follow-up study of the 197 negro children representing all social classes in the urban south that were reported on in 1940 in Davis and Dollard's *Children of Bondage*. The assumption of the importance of "social class" and "color caste" as the principal explanatory factors is not sufficient. Rather, the ethos of each social world (middle class, matriarchy, gang, nuclear family, etc.) articulates a cardinal social value that tends to color the basic social attitudes of the individuals socialized in it. Because the real social worlds of the New Orleans negroes are closer to the white social worlds than to common stereotypes, desegregation and integration should proceed more easily.—R. E. Perl.

3022. Tiedemann, John George. (American U.) An investigation of the influence of group standards and deviate member behavior on the exhibited racial prejudice of an individual. *Dissert. Abstr.*, 1961, 22(4), 1288.—Abstract.

3023. Tisdale, John R. (Boston U.) *Psychological value theory and research: 1939-1960. Dissert. Abstr.*, 1961, 22(4), 1244.—*Abstract.*

3024. Toch, H. H., Rabin, A. I., & Wilkins, D. M. (Michigan State U.) *Factors entering into ethnic identifications: An experimental study. Sociometry*, 1962, 25(3), 297-312.—52 Jewish Ss and 60 non-Jewish Ss were asked to identify 60 systematically grouped portraits. Sortings were by intelligence, age, likability, and religion. Jewish pictures were comparatively accurately identified by all Ss, but more so by Jews. "Pictures classified as Jewish also tended to be sorted as bright, especially by Jewish Ss. There was less evidence of ethnocentricity in other sortings, apparently in part because of relatively stereotyped classifications by brightness and likability. These two evaluative dimensions were also highly correlated. Jewish pictures tended to be judged through the use of physiognomic cues, whereas Catholicism was frequently inferred from other categories (nationality); Protestantism tended to be a residual category."—H. P. Shelley.

3025. van den Bergh, Pierre L. (U. Natal, Durban, South Africa) *Race attitudes in Durban, South Africa. J. soc. Psychol.*, 1962, 57(1), 55-72.—A questionnaire study conducted among 383 urban middle-class South African students shows that racialism is strongest among Whites, though not absent among Africans and Indians. Whites express more social distance and less actual contact (particularly in situations implying equality) with non-Whites than non-Whites do with Whites. Stereotypes reveal a similarity between anti-Semitism and anti-Indian feelings. Africans and Indians are politically more radical than Whites, but all groups expect considerable political change, mostly through violence, and think that the racial situation has worsened in the last 20 years. The present study confirms previous studies by Pettigrew and MacCrone in showing that, of the Whites, Jews are least prejudiced and Afrikaners most prejudiced. All 3 studies indicate that anti-non-White attitudes of Whites are not generalized to the White out-groups.—*Author abstract.*

GROUP INFLUENCES

3026. Bennis, Warren G., & Peabody, Dean. (Massachusetts Inst. Technology) *The conceptualization of two personality orientations and sociometric choice. J. soc. Psychol.*, 1962, 57(1), 203-215.—Ss were rated on dependency (orientation to authority) and personalness (orientation to intimacy). It had been found that (a) the 2 extremes of these qualities may be combined in conflicted behavior, and (b) the 2 qualities are related, primarily through the relation of Dependents and Counterpersonals. Ss made a series of sociometric choices to test the hypothesis that people tend to select rather than reject those of similar personality. Results were in the predicted direction; the poorest results were obtained in the choices of the Counterpersonals and the Dependents.—*Author abstract.*

3027. Birney, Robert C., & Houston, John P. (Amherst Coll.) *The effects of creativity, norm distance, and instructions on social influence. J. Pers.*, 1961, 29(3), 294-302.—"Using a multivariate design, Ss were subjected to social influence by a two-man majority of their peers. Sixty freshman expressed their preference for paintings and were sub-

jected to uniform degrees of disagreement by the majority. Neither the size of discrepancy between the individual's prior judgment and that of the majority nor instruction differences had any effect on yielding. Ss high on creativity, as measured by Barron's devices, yielded least. All Ss showed considerable yielding, however, in direct opposition to the findings reported by Crutchfield . . . even though personal esthetic preferences were involved."—G. T. Lodge.

3028. Blake, Robert R., & Mouton, Jane Srygley. (U. Texas) *Comprehension of own and of out-group positions under intergroup competition. J. conflict Resolut.*, 1961, 5(4), 304-310.—193 Ss participated in a standard sequence of ingroup and intergroup activities. "During competition groups formed solutions to a problem. Adversaries were allowed sufficient time for clarification to produce the subjective feeling that they understood the two solutions equally well before an intergroup knowledge test was administered. The results demonstrate that misunderstandings in objective properties of solutions are directly related to one's membership affiliation. . . . We are suggesting, therefore, that win-lose judgments are difficult to accept in an emotionally mature manner, partly due to distortions in understanding which are closely linked to 'membership.'"—G. T. Lodge.

3029. Borah, Lee A., Jr. (U. Minnesota) *An investigation of the effect of threat upon interpersonal bargaining. Dissert. Abstr.*, 1961, 22(6), 2089.—*Abstract.*

3030. Borgatta, Edgar F. (Cornell U.) *A systematic study of interaction process scores, peer and self-assessments, personality and other variables. Genet. psychol. Monogr.*, 1962, 65, 219-291.—A revision of the Bales interaction scoring method is analyzed in a sample of 175 male college Ss observed in 5-person groups. Data replicating the analysis on 114 of the Ss in independently composed 3-person groups are then presented. The findings appear to indicate stability of the structure of interaction variables. Peer rankings (previously analyzed) appear to predict only in the area of dominance (activity or assertiveness), and self-rankings and self-ratings also predict in this area. Personality inventories have first order correlations that indicate significant relationship to activity or assertiveness, but in factor analysis this is minimized. Self-ratings are well related to the personality inventory scales, but self-rankings are not. In appendices, a frame of reference for research in the field of behavioral description is outlined, and detailed description of the revised category system and a protocol are presented.—*Author abstract.*

3031. De, B., & Sinha, J. P. *Topography of a group. J. psychol. Res., Madras*, 1962, 6(1), 9-14.—Results of sociometric choice data for a class of students of psychology are analyzed both for frequency and intensity of like and dislike judgments. Communication patterns and attractiveness of the group are also indicated.—U. Pareek.

3032. Fox, David J., & Lorge, Irving. (Columbia U.) *The relative quality of decisions written by individuals and by groups as the available time for problem solving is increased. J. soc. Psychol.*, 1962, 57(1), 227-242.—Lorge and others have reported that with 50 minutes available, individuals wrote better solutions to human relations problems than ad hoc groups. This study investigated whether or not this generalization is supported when more

time is available. The new data indicate that with more time, ad hoc groups write solutions as good as those written by individuals, before instruction in group dynamics and problem solving; and solutions better than those written by individuals after such instruction. The data also indicate a discrepancy between the ideas initially available, those discussed, and those included in the written group decision. This suggests the need for better techniques of problem solving, of evaluating ideas presented, and of reporting results, in group deliberation.—*Author abstract.*

3033. Goslin, D. A. (Russell Sage Found.) **Accuracy of self perception and social acceptance.** *Sociometry*, 1962, 25(3), 283-296.—"The theoretical position taken in this study is that social interaction is based on the accuracy of the participants' expectations about one another's behavior. Data from 19 groups of adolescent boys and girls tended to support the hypothesis that children who perceived themselves differently from the way they were perceived by the other members of the group, and/or were unable to predict how the other members of the group perceived them, would tend to be isolated from the group." Data were also gathered indicating that the rejected tended to overestimate themselves more, to show more self-conflict, and to have more variance in their received ratings.—*H. P. Shelley.*

3034. Heiss, J. S. (U. Connecticut) **Degree of intimacy and male-female interaction.** *Sociometry*, 1962, 25(2), 197-208.—Sex role differentiation was studied in 54 unmarried couples of varying degrees of intimate relationship. Each couple discussed their disagreements on certain issues attempting to come to some agreement. "As expected, males tended to dominate in the task sections of the Bales system, and females dominated in the positive reactions section. Contrary to expectations, the distribution of sections within the male group was not very different from that in the female group. With increasing intimacy the dominant sex in each section became less dominant. This trend reflects the fact that females who are opposed to male dominance act more consistently with this attitude in intimate groups than they do in casual relationships. Another relevant factor is that more people in the casual groups hold attitudes favoring male dominance."—*H. P. Shelley.*

3035. Hoffman, L. R. (U. Michigan) **A note on ratings versus choices as measures of group attraction.** *Sociometry*, 1962, 25(3), 313-320.—"Ratings and choices were compared for their equivalence as sources of data on members' attraction to their groups. Each member of four-person homogeneous and heterogeneous (with respect to personality) groups rated the other members of his group on liking and problem-solving ability and chose three people each from among his group and others on the same two bases at three different times. Correlations among the four derived indexes of attraction were higher between methods than between base of attraction for both individuals and groups and showed no regular changes over time."—*H. P. Shelley.*

3036. Hood, William Robert, & Sherif, Muzafer. (U. Oklahoma) **Verbal report and judgment of an unstructured stimulus.** *J. Psychol.*, 1962, 54(1), 121-130.—The question was raised as to whether the convergence of judgments toward a common norm obtained from Ss in an autokinetic situation was

merely a verbal compliance or it reflected their judgment of the extent of movement. An experiment was conducted in which Ss did not "commit" themselves in the presence of the plant, removing immediate "social pressure." Ss were exposed, as though accidentally, to the prescribed judgments (1"-5" range under one condition and 6"-10" range under the other). Ss gave judgments, after the social influence was removed, which were preponderantly within the respective range to which they were initially exposed thus showing the anchoring effect of conceptual categories under the stimulus condition of the experiment. This situation is contrasted with those at an opposite pole, in which determinants in the physical stimulus situation are predominant and discrepant social standards are introduced.—*Author abstract.*

3037. Kassarian, Waltraud M., & Kassarian, Harold H. (U. California, Los Angeles) **Conformity of judgment in a group situation.** *Psychol. Rep.*, 1962, 10(2), 491-494.—Perceptual judgments were indicated privately with paper and pencil by 97 undergraduates while 10 informed Ss attempted to influence judgments by publicly indicated choices including 67% wrong answers. Significantly more errors were made than by a control group of 20 Ss who performed the task without attempted influence. "The degree of conformity varied among individuals from no conformity to total yielding. However, . . . the greater percentage of the total group did not conform. This group approach proved workable and yielded results comparable to those obtained by Asch's individual approach."—*B. J. House.*

3038. Lutzker, Daniel R. (Norwich Hosp., Conn.) **Sex role, cooperation and competition in a two-person, non-zero sum game.** *J. conflict Resolut.*, 1961, 5, 366-368.—"Twenty pairs of subjects, heterogeneous in regard to sex, played a 30-trial, two-person, non-zero sum game. The game permitted both cooperation and competition to occur. It was hypothesized that sex role would influence the choices of Red (competitive) and Black (cooperative). . . . It was concluded that sex role did not influence cooperative and competitive behavior in this game."—*G. T. Lodge.*

3039. Myers, Albert Edward. (U. Illinois) **The effect of team competition and success on the adjustment of group members.** *Dissert. Abstr.*, 1961, 22(5), 1710-1711.—*Abstract.*

3040. Oeser, O. A., & Harary, Frank. (U. Michigan) **A mathematical model for structural role theory. Part I.** *Hum. Relat.*, 1962, 15(2), 89-109.—The basic concepts, postulates, elements, and relations sufficient for setting up a digraphic mathematical model for analysis of role structures as a collection of sets of relations on sets of persons, positions, and tasks respectively, are proposed. The context of role behavior is regarded as the total set of relations embodied in a structural role digraph. Appendices on the terminology of digraphs and a glossary are included.—*W. W. Meissner.*

3041. Olmsted, D. W. (Michigan State U.) **A developmental model of the social group.** *Sociol. Quart.*, 1962, 3, 195-207.—In a brief theoretical paper, Olmsted discusses the processes of model building, proposes a sequence of development for social groups, and evaluates his model against recognized criteria of model-building. He sees "the existence of a socially defined need for the product . . . of a social group"

and "the presence of potential members" as the necessary conditions of group formation. The important factor in group development is continuity of interaction which leads to mutual awareness, shared experiences, and stable relations—all of which eventually give rise to the properties of a mature group: group goals, interpersonal structures, perceptual consensus, group norms, and syntality.—*K. E. Davis.*

3042. Seaborne, A. E. M. (Brunel Coll., England) **Group influence on the perception of ambiguous stimuli.** *Brit. J. Psychol.*, 1962, 53(3), 287-298.—An attempt was made to relate the judgments made by Ss in a social pressure situation to the ambiguity of the stimulus being judged. Ambiguity values were assigned to the various stimuli on the basis of responses made by Ss to the stimuli when not exposed to social influence. It was found that conformity was not related to the ambiguity of the stimulus although individual certainty of correctness varied inversely and response time varied directly with ambiguity. It seems possible that this can be accounted for by assuming that the S's assessment of the difficulty of the judging task was used to rate the value of the group's opinion so that where it seemed that the possibility of arriving at a correct answer was less, the group's influence was less effective. The results indicate that conformity can only be expected to vary directly with ambiguity where the social influence is seen to derive from a source external to the immediate stimulus situation.—*Journal abstract.*

3043. Shears, Loyda Ada Mosier. (U. Hawaii) **The effect of variation in power pattern on the formation of coalitions in tetrads.** *Dissert. Abstr.*, 1961, 22(6), 2091.—*Abstract.*

3044. Shure, G. H., Rogers, M. S., Larsen, I. M., & Tassone, J. (System Development Corp., Santa Monica, Calif.) **Group planning and task effectiveness.** *Sociometry*, 1962, 25(3), 263-383.—"Newly formed groups, performing in a communication-restricted environment, are assigned a pressing task which requires group coordination and planning for efficient performance. Three conditions of opportunity for planning are analyzed for their effects on task efficiency, organizational development, and message interaction. When planning must take place concurrently with task activity, group members give up planning efforts although they may be in possession of suitable plans and be aware of their ultimate advantage. The mechanism by which task pressure seems to produce this result is generalized to account for some forms of panic behavior not adequately explained by existing concepts." Ss were 150 freshman and sophomore college students.—*H. P. Shelley.*

3045. Stotland, Ezra, & Cottrell, Nickolas B. (U. Washington) **Self-esteem, group interaction, and group influence on performance.** *J. Pers.*, 1961, 29(3), 273-284.—147 Ss received a Q sort measure of self-esteem. Then seated 6 at a time around a "Lazy Susan," Ss collected words by pairing syllables from lists provided. Each S collected a different category. By design, in $\frac{1}{2}$ the groups there was much interchange of words via the Lazy Susan, and but little interchange in the other $\frac{1}{2}$. Ss were then given a task of mentally counting recurrences of a designated syllable in a spoken passage of Hindi. Findings: (a) "Ss expected to do better on the syllable counting task actually performed better on it, and evaluated their performances higher when the first

S performing . . . was perceived to do well" (b) "This difference obtained more for Ss of low self-esteem." (c) "The difference did not occur significantly more under conditions of high interchange of words than low."—*G. T. Lodge.*

3046. Suppes, Patrick, & Krasne, Franklin. (Stanford U.) **Applications of stimulus sampling theory to situations involving social pressure.** *Psychol. Rev.*, 1961, 68(1), 46-59.—An interaction situation is conceived of as one in which each member of a group provides stimuli and reinforcements for every other member of the group. Pressure on an individual to modify his choices is treated as a stimulus discrimination situation. A Markovian model is presented to account for the transitional effects of stimulus and reinforcement events on probability of response. An experiment provides data with which the predictions from the model can be compared, and close agreement is found.—*C. N. Uhl.*

3047. White, David Glen. (U. Maryland) **Sex bias in experimental juries.** *Dissert. Abstr.*, 1961, 22(6), 2092.—*Abstract.*

3048. Wolfe, Donald McCreery. (U. Michigan) **Social influence toward unanimous group decision in various group authority structures.** *Dissert. Abstr.*, 1961, 22(4), 1289.—*Abstract.*

3049. Zajonc, Robert B. (U. Michigan) **The effects of feedback and probability of group success on individual and group performance.** *Hum. Relat.*, 1962, 15(2), 149-161.—140 members of the Strategic Air Command were divided into 20 groups of 7 members. The Group Reaction Time Apparatus was used to measure success under conditions of direct feedback (10 groups) or confounded feedback (10 groups). Results indicate that individual performance improves on a group task and that improvement is greatest for a difficult group task when information on performance of all members and the group as a whole is fed back. Confounded feedback gives only slight improvement. Individuals performing at high rates were more sensitive to feedback than to task difficulty, but the opposite was found for members performing at low rates.—*W. W. Meissner.*

3050. Zajonc, Robert B. (U. Michigan) **A note on group judgments and group size.** *Hum. Relat.*, 1962, 15(2), 177-180.—Statistical problems related to estimation of relation between the validity of group judgments and group size are discussed. Mean correlation between individual rankings, when negative, decreases with increases in group size as long as the average intercorrelation among the judges is positive.—*W. W. Meissner.*

3051. Zander, A., & Curtis, T. (U. Michigan) **Effects of social power on aspiration setting and striving.** *J. abnorm. soc. Psychol.*, 1962, 64(1), 63-74.—"Individual Ss were observed in a situation similar to the one used by Rotter (1942) for studying the level of aspiration, while they were to perceive themselves as members of a team which was not physically present. In two experimental conditions . . . the Ss were provided standards of individual performance, for a series of trials, said to originate in others members of their team. Events were so arranged that Ss . . . did not attain the performance levels put before them by the others. . . . Assumptions were made that: (a) scores are evaluated in terms of internal levels of aspiration; (b) referent social pres-

asures more strongly influence . . . internal levels of aspiration than do coercive . . . and (c) a discrepancy between an internal level of aspiration and an obtained score generates forces to reduce this discrepancy." Results confirmed the hypotheses.—G. Frank.

LEADERSHIP

3052. Kipnis, David, & Lane, William P. (USN Personnel Research Activity, Washington, D. C.) **Self-confidence and leadership.** *J. appl. Psychol.*, 1962, 46(4), 291-295.—The object of this study was to examine the relationship between lack of confidence in one's leadership ability and reliance upon passive leadership techniques to cope with supervisory problems. 77 Navy petty officers were given a questionnaire containing 20 supervisory problems and were asked to evaluate the desirability of each of 5 ways of solving each problem. Ss also evaluated how satisfied they were with their leadership abilities. Principal findings were: (a) Ss were highly consistent in the extent to which they endorsed each of 5 approaches to correcting performance, (b) there was a correlation of .52 between endorsing the use of administrative procedures to solve the problem and informally asking a superior to solve the problem, and (c) Ss who lacked confidence in their leadership abilities were significantly less willing to hold face-to-face discussions with subordinates and significantly more often endorsed both referring the subordinate to a superior and relying upon the use of administrative rules to solve the supervisory problems.—*Journal abstract.*

3053. Lowry, Richie P. (Chico State Coll.) **The functions of alienation in leadership.** *Sociol. soc. Res.*, 1962, 46(4), 426-435.—Recent studies of mass society have often implicitly assumed a connection between alienation and the breakdown of effective leadership processes. A study of changing public life in a small northern California community indicated that alienation is a complex result of social and ideological factors. A typology of leadership was devised utilizing the varying forms of alienation from local community life. This typology suggested that alienation is ultimately functional in providing for the heterogeneous leadership types necessary to maintain effective leadership interaction in a rapidly changing small community in mass society. Ineffective leadership results from disequilibrium in the community's leadership structure rather than from alienation, per se.—*Journal abstract.*

3054. Maier, N. R. F., & Hoffman, L. R. (U. Michigan) **Group decision in England and the United States.** *Personnel Psychol.*, 1962, 15(2), 75-87.—Student groups in England and the United States and groups of English supervisors were compared on a role-playing case involving the group decision method of leadership. Results indicated that English students tend to dominate the discussion more, and to consider seniority less important than the Americans; the English supervisory groups tend to fall between both. English groups felt greater satisfaction with the solution when group decision was used, as contrasted to the foreman's domination of the discussion. It is concluded that "the opportunity offered by group decision to participate in making decisions affecting one's life has appeal for all peoples, regardless of cultural differences in prevailing practices."—A. S. Thompson.

LANGUAGE & COMMUNICATION

3055. Cohen, A. M., Bennis, W. G., & Wolkon, G. H. (Case Inst. Technology) **The effects of changes in communication networks on the behaviors of problem-solving groups.** *Sociometry*, 1962, 25(2), 177-196.—The effects of changes in the communication networks of problem-solving groups on efficiency, organization, and satisfaction were studied using 40 5-member groups randomly formed from paid, volunteer, undergraduate students. Under one condition the group was changed from a more efficient to a less efficient but more satisfying network; in the other condition the reverse obtained. "The results revealed that prior experience influenced how groups organized for solving problems, how certain they were of their answers, how satisfied they were, and whether or not leadership was continuous from one network to another."—H. P. Shelley.

3056. Dietze, Alfred G. (Michigan State U.) **Meaning clusters of common adjectives in the Finnish language.** *J. soc. Psychol.*, 1962, 57(1), 33-48.—Cross cultural comparisons of semantic structures have used material translated from the language of the E into the comparison language. This may lead results in favor of the hypothesis of isomorphy. The present study attempts comparison under the restriction that test materials are independently generated in the languages compared. From 16,000 adjectives given as responses to 80 nouns by Finnish Ss, 60 pairs of bipolar adjectives were selected on the basis of frequency. These were used with 280 Finnish Ss in a forced-choice paired-comparison experiment in which all pairs of adjectives were judged in terms of all other pairs as to similarity of meaning. The results formed an order 60 matrix of agreement indices of Ss marking items in the same direction. Estimates of phi for 40 variables were subjected to factor analysis rotated to simple structure. Results of the word association experiment compared with Thorndike-Lorge frequency indices and Osgood's similarly derived scales support isomorphy in the similarity of descriptive concepts between the 2 languages. The factor analysis yielded 5 factors, the dominant one clearly evaluative, but the Finnish overtones. Others bear less resemblance to previous findings.—*Author abstract.*

3057. Drieman, G. H. J. **Differences between written and spoken language.** *Acta psychol., Amsterdam*, 1962, 20(1), 36-57.—8 psychology students spoke and wrote on analogous themes. Analysis shows written language to contain: shorter texts, longer words, fewer words of one syllable, more words of more than one syllable, more attributive qualities, a more varied vocabulary. The results support other studies.—G. Rubin-Rabson.

3058. Dubois, Jean, & Guilbert, Louis. **La notion de degré dans le système morphologique du français moderne.** [The expression of degree in the morphology of modern French.] *J. Psychol. norm. pathol.*, 1961, 58(1), 57-64.—A discussion of social and lexical aspects of prefixes denoting degrees of intensity, e.g., hyper-, hypo-, quasi-, ultra-, super-, etc.—M. L. Simmel.

3059. Jacobson, E., Deutschmann, Paul J., Kato, Hidetoshi; Girard, Alain; Noelle, Elisabeth; Schmidtchen, Gerhard; Brouwer, Marten; Ander-

son, Bo; Eisenstadt, S. N. **Communication and information.** *Int. soc. Sci. J.*, 1962, 14(2), 251-348.—A series of loosely interrelated articles on the current status of communication research, together with some reports of research. In general, there is a continuing interest in the processes of group communications deriving, in large measure, from American research and theory in this field, and from extending this research into other cultures.—*A. Barclay.*

3060. Kern, Karl Robert. (U. Wisconsin) **Effects of economic value orientation upon perceptual and attitudinal responses to a persuasive written communication.** *Dissert. Abstr.*, 1961, 22(6), 2079-2080.—*Abstract.*

3061. Peel, E. A. (U. Birmingham) **Learning and meaning.** *Bull. Brit. Psychol. Soc.*, 1962, 48, 1-9.—In his Presidential address to the British Psychological Society the author outlines a vectorial theory involving a type of meaning, distinguished from semantic and syntactic meaning, which is named "conceptual meaning." Such meaning is defined as "the relation between the sign and other signs of similar significates." Experimental evidence in support of the theory is detailed.—*C. C. Kiernan.*

3062. Sines, J. O. (Washington U. School Medicine) **An indication of specificity of denotative meaning based on the semantic differential.** *J. gen. Psychol.*, 1962, 67, 113-115.—One aspect of semantic differential ratings is studied which significantly reflects the differences in frequency of usage and, therefore, the number of dictionary meanings which are attributable to several English language words. It is suggested that the semantic differential measure discussed (deviation from the midpoint) is a useful measure of specificity of denotative meaning.—*Author abstract.*

3063. Swank, Theron Edwin. (Indiana State U.) **An analysis of the social diffusion of an audio-visual message through a church congregation.** *Dissert. Abstr.*, 1961, 22(4), 1287.—*Abstract.*

3064. Turbayne, Colin Murray. (U. Rochester) **The myth of metaphor.** New Haven, Conn.: Yale Univer. Press, 1962. viii, 224 p. \$6.00.—Metaphor as a semantic device is inspected in terms of its psychological and philosophical implications. It is shown to be an artificial language, often misleading, and psychologically unsound. The author attempts to expose categorical confusion. The book has a twofold aim: to "explode the metaphysics of mechanism by exposing mechanism as a case of being victimized by metaphor," and to show that "the metaphysics of mechanism can be dispensed with." In lieu of metaphor the author proposes an alternative model which treats the events of nature as elements of language, and shows how the linguistic metaphor sheds light on the concrete problem of vision and visual perception, left obscure by the mechanical metaphor. The main theme of the book is "that we should constantly be aware of the presence of metaphor, avoiding being victimized by our own as well as by others," with a secondary theme, that because of the infusion of metaphor into our psychological orientation to problems the distinction between the bona fide problem and the "mythology" relating to the problem are so tenuous, that a distinction is drawn only with the greatest difficulty.—*Paul D. Leedy.*

Speech & Linguistics

3065. Duijker, H. C. J. **Spreekssituatie en taalstructuur.** [Speech situation and language structure.] *Gawein*, 1962, 10(4), 191-203.—Language should be conceived as a normative system. Methods of speech study rather than language psychology include: speech behavior resulting from the situation in which the S finds himself, the Osgood technique, careful or stereotyped speech, and the individual choice of speech symbols. The aim is a special psychological code based on mathematics, measurement of meaning, stressing rather than evaluating facts, and using quantitative terms. This code would describe man as a collection of scale point positions in an n-dimensional space.—*J. A. Lückner.*

3066. Fletcher, Samuel G. (Utah State U.) **Speech as an element in organization of a motor response.** *J. speech hear. Res.*, 1962, 5(3), 292-300.—By means of tests of simple reaction time, 6 adult and 6 child Ss were separated into 2 matched groups at each age level. One group at each level was instructed to release a response key when a correct stimulus light was lit. The other group was instructed to release the key and say "Go" when the correct stimulus was given. Results showed no significant differences within age level or among age levels. When a decision element was imposed, reaction time was extended. Comparisons with speech as the independent variable demonstrated speech to be a significant asset for the child subjects and an apparent deterrent for the adults.—*M. F. Palmer.*

3067. Hollien, Harry. (U. Florida) **Vocal fold thickness and fundamental frequency of phonation.** *J. speech hear. Res.*, 1962, 5(3), 237-243.—3 males and 3 females chosen on the basis of age, absence of vocal disorders, ability to produce specified vocal tone, and representing low, medium, and high pitched voices were required to produce 6 vocal frequencies with a normal pitch register while lamina-grams were made. 3 of these levels were common to the men only, 3 to the women only, and the remaining 3 to all Ss. The mean thickness of vocal folds was systematically reduced as the fundamental frequency of phonation was raised. Vocal fold thickness constitutes an important determinant of fundamental frequency of phonation.—*M. F. Palmer.*

3068. Matoré, G. **Les dimensions dans le vocabulaire français d'aujourd'hui.** [Spatial dimensions in modern French vocabulary.] *J. Psychol. norm. pathol.*, 1961, 58(2), 157-169.—A phenomenological analysis of spatial concepts, based in part on the writings of modern French novelists and journalists.—*M. L. Simmel.*

3069. Munson, W. A., & Karlin, J. E. (Bell Telephone Lab., Murray Hill, N. J.) **Isopreference method for evaluating speech-transmission circuits.** *J. Acoust. Soc. Amer.*, 1962, 34(6), 762-774.—This paper describes a modification of the paired comparison technique for deriving a 1-dimensional scale for rating speech transmission systems on the basis of listener preferences. Experiments have been conducted for a large number of speech transmission conditions on the transmission preference unit (TPU) scale. Equal preference contours were determined on speech level-noise level planes for several different frequency bands. The data suggest that the basic

requirements of transitivity may be satisfied for many types of transmission conditions.—*A. M. Small, Jr.*

Mass Communication

3070. Hess, Robert D., & Goldman, Harriet. (U. Chicago) Parents views of the effect of television on their children. *Child Develpm.*, 1962, 33(2), 411-426.—A nonrandom sample of 99 mothers were interviewed to elicit attitudes and feelings toward various aspects of television program content, tele-viewing, and the effect of television upon children. A small proportion of the mothers were enthusiastic about children's programs or were significantly worried about the effects of television on their children. There was a general feeling that the TV networks have basic standards and good intensions. Recommendations are made for greater concern in the parents about TV.—*W. J. Meyer.*

3071. Tannenbaum, Percy H., & Lynch, Mervin D. Sensationalism: Some objective message correlates. *Journalism Quart.*, 1962, 39(3), 317-323.—An attempt was made to uncover the message attributes that appear to be linked to sensationalism. 61 Ss read 24 passages and rated each passage against semantic differential scales representing 3 dimensions of the judgment of sensationalism. Each S also judged the concept "Sensational news" against the same set of scales. Factor analysis of the 41 resultant variables indicated one general sensationalism factor. 3 stylistic variable clusters were also found.—*D. E. Meister.*

ESTHETICS

3072. Adcock, C. J. (Victoria U., Wellington, New Zealand) Aesthetics. *J. gen. Psychol.*, 1962, 67, 83-87.—An attempt is made to explain aesthetic enjoyment as based on affective experiences of a particular type. The distinguishing features of the experiences are that they are not directly related to survival utility and that they attach to perception (perceptual pleasure for its own sake). The experiences depend upon innate sensory factors, the achievement of perceptual meaning, the nature of our form concepts, and conditioning. Although beauty is not regarded as an absolute attribute, the view taken here does not preclude the acceptance of aesthetic standards by the human species and does not require that such standards be simply current majority opinion.—*Author abstract.*

3073. Alluisi, E. A. (Human Factors Research Dept., Lockheed-Georgia Co.) Rater-rater reliabilities in judging musical performances. *Percept. mot. Skills*, 1962, 14(1), 145-146.—Rater-rater reliability coefficients were computed from the over-all performance grades given woodwind students by different music instructors. Instructors of woodwinds and brass agreed quite well with each other (average r about +.850), but not so well with instructors of strings and percussion (r s ranging between -.338 and +.599).—*W. H. Guertin.*

3074. Beldoch, Michael. (Columbia U.) The ability to identify expressions of feelings in vocal, graphic, and musical communication. *Dissert. Abstr.*, 1961, 22(4), 1246.—*Abstract.*

3075. Beranek, L. L. (Bolt Beranek & Newman, Cambridge, Mass.) Seeking communication: Musical-acoustic vocabulary. *Sound*, 1962, 1(4), 22-26.

—Phrases used in the subjective description of musical sound are defined in terms of physical parameters.—*A. M. Small, Jr.*

3076. Ekman, Goesta, & Kuennapas, Teodor. (U. Stockholm) Scales of aesthetic value. *Percept. mot. Skills*, 1962, 14(1), 19-26.—An aesthetic variable was measured by the "direct" psychophysical method of ratio estimation and the "indirect" method of pair comparisons. In addition, a category scale was obtained. Both the interval scale constructed from pair comparisons on the assumption of Thurstone's Case V, and the category scale, are logarithmic functions of the ratio scale. In the case of the indirect method, the result means that the assumption of constant variability should be replaced by an assumption of proportional variability, if the ratio scale is regarded as a criterion.—*W. H. Guertin.*

3077. Farnsworth, Paul R. (Stanford U.) Elite attitudes in music as measured by the Cattell space method. *J. Res. music Educ.*, 1962, 10, 65-68. "... the best way to learn elite attitudes is still to question the elite. The Cattell space method, when employed with the Britannica, was shown to be quite invalid. Even when used with musical encyclopedias, it must be regarded as a rather inferior method for studying such attitudes. Yet it does select the musicologists' top choices reasonably well in this specialized type of encyclopedia."—*D. S. Higbee.*

3078. Knapp, R. H., & Ehlinger, H. (Wesleyan U.) Stylistic consistency among aesthetic preferences. *J. proj. Tech.*, 1962, 26(1), 61-65.—"There seems to be a general stylistic consonance among (1) restless and troubled music, (2) turbulent and diffuse abstract art, and (3) curvilinear architectural forms." A 2nd constellation is composed of elements essentially opposed to the aforementioned.—*A. F. Greenwald.*

3079. Knapp, Robert H., McElroy, Lowell R., & Vaughn, James. (Wesleyan U.) On blithe and melancholic aestheticism. *J. gen. Psychol.*, 1962, 67, 3-10.—This study examines the hypothesis that the tendency to prefer joyous as opposed to melancholic aesthetic expressions is directly related to attitudes toward conscience and the severity of conscience as seen by the individual. Testing instruments consisted of the Knapp-Green Abstract Art Test, a collection of 40 modern abstract art paintings, and 3 "metaphor scales" for Death, Conscience, and Self Image, taken from the Knapp Metaphor Scales. A moderate but highly significant correlation was obtained between preference for melancholic paintings and tendency to describe Conscience in hostile, ego-alien terms. Significant correlations were also obtained between preference for images describing Death and Self Image.—*Author abstract.*

3080. Kozina, T. M. (Mechnikov State U., Odessa, USSR) Rol' obratnoi afferentatsii v slukhovom vospriatii ritma. [Role of back "afferentation" in the auditory perception of rhythm.] *Dokl. Akad. Pedag. Nauk RSFSR*, 1962, No. 2, 81-84.—Study of the effect of motor accompaniment, which is out of tune with a rhythmic stimulus, on the perception and reproduction of rhythm. Ss were 20 college students (age 18-28). Auditory rhythm was provided by a metronome and the motor accompaniment consisted in pressing a telegraph key. The main result was that under these conditions both the perception and the reproduction of rhythm are quite

inaccurate. The motor accompaniment when in phase with the rhythm is indispensable for the accuracy of the perception and reproduction of a rhythmic stimulus.—*A. Cuk.*

3081. Malrieu, P. **Témoignages du romancier sur la psychologie ouvrière.** [The novelist's contribution to the psychology of the worker.] *J. Psychol. norm. pathol.*, 1961, 58(2), 171-191.—The personality, every day life, and problems of the worker as depicted in the novels of the last 100 years.—*M. L. Simmel.*

3082. Neher, A. (East Los Angeles Coll., Calif.) **A physiological explanation of unusual behavior in ceremonies involving drums.** *Hum. Biol.*, 1962, 34(2), 151-160.—A comparison of reports of behavior occurring in drum ceremonies with observations from laboratory studies on the effects of rhythmic stimulation reveals the 2 situations to be apparently similar in respect to stimulus conditions and responses.—*P. Swartz.*

3083. Saunders, F. A. **Violins old and new: An experimental study.** *Sound*, 1962, 1(4), 7-15.—Attempts to measure physical parameters which relate to the perception of musical tones produced by violins are reported. An effort is made to discern what factors differentiate between "good" and "bad" instruments.—*A. M. Small, Jr.*

3084. Ward, W. Dixon. (Subcommittee on Noise, Los Angeles, Calif.) **On the perception of the frequency ratio 55:32.** *J. Acoust. Soc. Amer.*, 1962, 34(5), 679.—"The fact that untrained listeners categorize the musical interval between two tones having a frequency ratio of 55:32 as being a major sixth is shown to be a most reasonable outcome on the basis of present knowledge.—*A. M. Small, Jr.*

3085. Wing, Herbert D. (Sheffield Training Coll., England) **A revision of the Wing Musical Aptitude Test.** *J. Res. music Educ.*, 1962, 10, 39-46.—". . . how a test was subjected to an intensive critical survey, how this led to a revision, and further, how the revision has been and is still being subjected to critical investigation to determine its limits of accuracy."—*D. S. Higbee.*

3086. Wright, Benjamin, & Rainwater, Lee. (U. Chicago) **The meanings of color.** *J. gen. Psychol.*, 1962, 67, 89-99.—A semantic differential and regression study of the connotative meanings of color among 3660 West German adults. Judgments of 50 3-inch squares of surface color were obtained on 48 adjective pairs with 20-70 Ss rating each color. Raw score principal component analysis of the 48 × 50 matrix of average ratings gathered 80% of the covariation into 6 meaning dimensions, "happiness," "showiness," "forcefulness," "warmth," "elegance," "calmness." The effects of hue, lightness, and saturation on these meanings were estimated by linear regression. Multiple correlations of color connotations with perceptions ranged from .57 to .87. Saturation had the most, and hue the least linear effect. Greater saturation and lightness both increased "happiness" and "showiness." Greater saturation also increased "forcefulness," "warmth," and "elegance," while greater lightness decreased "forcefulness," "warmth," and "calmness." For hue, greater blueness increased "elegance" and "calmness" but decreased "warmth."—*Author abstract.*

3087. Zeraffa, Michel. **Thèmes psychologiques et structures romanesques dans l'oeuvre de Marcel Proust.** [Psychological themes and the structure of the novel in the writings of Marcel Proust.] *J. Psychol. norm. pathol.*, 1961, 58(2), 193-216.—The author analyzes Proust's aim, as reflected in *Remembrance of Things Past*, and the means which he employs to achieve this aim. Special consideration is given to language as a mediator of temporal relationships.—*M. L. Simmel.*

PERSONALITY & ABILITIES

3088. Dunnette, Marvin D., & Kirchner, Wayne K. (U. Minnesota) **Validities, vectors, and verities.** *J. appl. Psychol.*, 1962, 46(4), 296-299.

3089. Friedman, C. J., Johnson, C. A., & Rosenthal, R. (Oklahoma State U.) **Further refinements for the modal technique.** *Percept. mot. Skills*, 1962, 14(1), 119-122.—The interesting composite of portraits called the "modal technique" was employed. Student judges reported degrees of "relatedness" between the portraits that differed only in the number of superimposed portraits used. Increasing the number of superimpositions beyond 45 did not increase the similarity of the modals.—*W. H. Guertin.*

3090. Honigfeld, Gilbert Howard. (Temple U.) **A factorial study of "neurological efficiency", perception and personality.** *Dissert. Abstr.*, 1961, 22(3), 908.—*Abstract.*

3091. Kenoyer, Marie Francis. (Fordham U.) **The influence of religious life on three levels of perceptual processes.** *Dissert. Abstr.*, 1961, 22(3), 909.—*Abstract.*

3092. Merenda, Peter F., & Clarke, Walter V. (U. Rhode Island) **Rejoinder to "Validities, Vectors, and Verities" by Marvin D. Dunnette and Wayne K. Kirchner.** *J. appl. Psychol.*, 1962, 46(4), 300-302.—(See 37: 3088)

3093. Secord, Paul F., & Backman, Carl W. **Personality theory and the problem of stability change in individual behavior: An interpersonal approach.** *Psychol. Rev.*, 1961, 68(1), 21-32.—An interpersonal theory is advanced according to which the locus of behavioral stability and change lies in an interpersonal matrix of 3 components: an aspect of the self-concept of S, S's interpretation of those elements of his behavior related to that aspect, and S's perception of related aspects of the person with whom he is interacting (O). Congruency among these components is threatened by the changing nature of interpersonal relations due to normative patterns of change, fortuitous changes, and the fact that O's means of establishing congruency for himself often create incongruencies for S. When incongruencies arise, a variety of interpersonal processes act either to restore congruency without change in self or behavior, or to form a new congruent matrix which does involve a change in self or behavior.—*P. Rempel.*

NEW TESTS & TEST CONSTRUCTION

3094. Birkman, Roger Winfred. (U. Texas) **Development of a personality test using social and self-perception inventories.** *Dissert. Abstr.*, 1961, 22(6), 2061-2062.—*Abstract.*

3095. Kameny, Aaron. (Montefiore Hosp., NYC) **50 Card Test: Clerical Task as a screening device for organic brain damage. Report on preliminary findings.** *Arch. phys. Med. Rehabil.*, 1961, 42, 785-790.—A clerical task is described involving the alphabetic filing of cards (50 Card Test or the Clerical Task). It is a short, easily scored test which may prove of potential value as: (a) a screening device for patients suspected of having organic brain disease, (b) an objective measure of recovery from organic disease, the patients' clinical improvement to be correlated with scores obtained on the Clerical Task, (c) a means of assessment of intellectual functioning in children beginning with the age of 10 years and the 5th elementary grade.—J. R. Royce.

3096. Lord, Frederic M. (Educational Testing Service) **Estimating norms by item-sampling.** *Educ. psychol. Measmt.*, 1962, 22(2), 259-267.—Norms may be better obtained through item-sampling instead of sampling examinees. Data supporting this thesis were obtained through the use of 70 items from a vocabulary test given to 1000 college seniors. The items were divided into 10 subtests, which were then given to 10 different groups of students. The item-sample estimate of the mean was closer to the mean than were 7 of the 10 examinee-sample estimates. Lord acknowledges that the method assumes that performance on an item does not depend on the context in which it occurs. This assumption can not apply to speeded tests. Other information that is needed to determine the value of item-sampling is discussed.—W. Coleman.

3097. Rey, André. (U. Geneva) **Interprétation de dessins et développement psychologique.** [Sketch interpretation and psychological development.] Neuchâtel, Switzerland: Delachaux & Niestlé, 1962. 374 p.—A new test termed "The Sketch Interpretation Test" is described and analyzed at length. It is a projective test of meaning as differentiated from a projective test of affective state and is claimed to be useful in investigating the significance and the structure that individuals give to certain visual material that allows a wide latitude of organization. The visual material, included in an appendix, consists of 20 black and white line diagrams graded somewhat in degree of ambiguity. The test is said to be useful for any age from 2 years upwards and for any degree of intellectual development. Extensive norms are provided for both adults and children. Also included is a voluminous glossary of themes ordered according to substance and quality. Detailed instructions for administration and scoring are given.—G. H. Mowbray.

3098. Rosen, Albert. (U. Maryland) **Development of the MMPI scales based on a reference group of psychiatric patients.** *Psychol. Monogr.*, 1962, 76(8, Whole No. 527), 25 p.—A total group of 714 patients were grouped into several diagnostic categories with $\frac{1}{3}$ of the total categorized as psychiatric patients-in-general. These groups were used in an effort to reduce the positive correlation between the MMPI scales by means of a new scale based on selective items from the MMPI that provides significant differentiation between the heterogeneous "psychiatric patients-in-general" and a homogeneous group with a specific diagnosis. A 2nd phase was concerned with the comparison of the new scales with the original MMPI in differentiating general normal

Ss from those with clinical mental disability. The new scales developed were labelled Conversion Reaction (Cr), Anxiety Reaction (Ar) and Paranoid Schizophrenia (Pz). Cr, Sm, and Pz were highly intercorrelated; Pz + 1 K was relatively independent of the others; and Pz, Dr, and Ar overlapped very little with other scales. The use of an abnormal reference group does reduce the positive intercorrelation in the MMPI.—M. A. Seidenfeld.

3099. Taylor, Frederick Richard. (U. Utah) **Two new psychological tests for diagnosing brain damage.** *Dissert. Abstr.*, 1962, 22(12), 4414.—Abstract.

3100. Waters, L. K., & Wherry, R. J., Jr. (USN School Aviation Medicine) **The preference index and responses to forced-choice pairs.** *Personnel Psychol.*, 1962, 15(2), 99-102.—Self-descriptive responses of 164 flight students to 30 forced-choice pairs, matched on an index of job importance but differing on discrimination values, were available from an earlier study. Differences between index values for statements in each pair were obtained for the preference index, job importance index, and discrimination index, and were correlated with frequency of choice of the nondiscriminating statements. A substantial relationship was found between PI differences and frequency of choice, even when the effects of apparent and real validity differences were removed. Comparison of results with previous studies suggests that the degree of bias in the situation plays an important role in the value of the PI as a matching index.—A. S. Thompson.

3101. Webster, Harold. (U. California, Berkeley) **Item sampling as a sufficient but unnecessary requirement for precise mental testing.** *Educ. psychol. Measmt.*, 1962, 22(2), 321-324.—In psychological measurement, the data used is not the item itself but rather numbers derived from the responses. To increase the measurement variance between persons, uniform item scoring and valid item content are needed. Increasing the heterogeneity of the item means does not appear to help improve test reliability.—W. Coleman.

3102. Wolfson, W., & Bachelis, L. (Middletown State Hosp.) **An abbreviated form of the WAIS Verbal scale.** *J. clin. Psychol.*, 1960, 16(4), 421.—The Verbal scale records of the WAIS test results of 100 patients, age 16-72, were examined. "By using selected items on each of the subjects of the verbal scale of the WAIS it was shown that a considerable saving of time could be had while yet retaining the reliability of the variety of functions of the original verbal scale."—V. J. Bieliauskas.

TEST STANDARDIZATION & EVALUATION

3103. Alimena, B. (Manhattan Coll.) **A note on norms for scatter analysis on the Wechsler intelligence scales.** *J. clin. Psychol.*, 1961, 17(1), 61.—The earlier published method by the same author dealing with the analysis of scatter on the Wechsler scales was brought up to date in this paper in view of the revision of the Wechsler test. A table is presented showing the method of establishing norms for the study of scatter, taking in consideration Wechsler's method of deviation IQs, and providing z scores.—V. J. Bieliauskas.

3104. Bodwin, R. F., & Bruck, M. (Child Guidance Clinic, Flint, Mich.) **The adaptation and validation of the Draw-A-Person Test as a measure of self concept.** *J. clin. Psychol.*, 1960, 16(4), 427-429.—In an attempt to devise a quantified self-concept scale for the DAP Test, 13 characteristics of drawings thought to reveal the self-concept of the drawer were devised on the basis of inspection of many drawings. The DAPs of 60 Ss, age 10 through 17 were rated on a 5 point scale for each of the 13 characteristics. The Ss were also rated on self-concept in a psychiatric interview. The DAP ratings were correlated with the interviewer ratings. The DAP self-concept scale was found to be valid (.01 level of confidence).—*V. J. Bielianskas.*
3105. Bouvard, C. **Le Test des Pyramides de Couleurs de Pfister: Comparaison des résultats d'une population française avec ceux d'une population allemande correspondante.** [The Pfister Colored Pyramids Test: Comparison of results of a French population with those of a corresponding German population.] *Rev. Psychol. appl.*, 1961, 11(4), 269-278.—The Pfister Colored Pyramids Test was given to a French population of 76 girls aged 13 and 14, and to a German population of 100 girls of 13-15. In percentage of utilization of each of the colors, for 7 there was no significant differences, for 3 there were differences significant at the .02 level; and for 1, at the .05 level. Rank order correlations between the lists of colors by frequency of use was .90. The 2 distributions were judged similar in view of the differences in composition and culture of the samples. Additional data are given as to syndromes, number of colors used, and structure.—*W. W. Wattenberg.*
3106. Callahan, R. J. (Detroit, Mich.) **Validity of the Children's Anxiety Pictures.** *Percept. mot. Skills*, 1962, 14(1), 166.—Children's Anxiety Pictures responses of children in a psychiatric hospital were compared with those from school children. The mean total of threatening objects perceived was higher for the psychiatric group.—*W. H. Guertin.*
3107. Corman, Michel. **Étude clinique des formes réduites de l'échelle d'intelligence de Wechsler pour enfants.** [Clinical study of short forms of the WISC] *Rev. Psychol. appl.*, 1962, 12(1), 33-48.—The protocols for 19 girls and 81 boys, aged 6-15, examined at Corman's Centre Médico-Pédagogique were studied to determine the correlation of various short forms with the global IQs of the WISC. The results for several 4-scale and 5-scale versions are given. It is concluded that the best short form would consist of 3 subtests from the verbal section and 3 from the performance section, as follows: Information, Arithmetic, Similarities, Block Design, Object Assembly, and Picture Completion. Profiles for a number of clinic cases are presented. This short form gives a saving between 20 and 40 minutes. Its use is contra-indicated with remedial reading cases or where there is excessive scatter.—*W. W. Wattenberg.*
3108. Eysenck, S. B. G. (U. London, England) **The validity of a personality questionnaire as determined by the method of nominated groups.** *Life Sci.*, 1962, No. 1, 13-18.—"A study is reported of the validity of the Maudsley Personality Inventory, using the method of nominated groups. Judges nominated persons of their acquaintance whose behaviour showed them to be outstandingly high or low on either one or both of the dimensions of extraversion-introversion and stability-neuroticism. Questionnaire answers of these subjects on the Maudsley Personality Inventory, which purports to measure these two dimensions were found to be related at very high levels of significance to the nominations they had received indicating considerable validity for the Inventory in question."—*C. T. Morgan.*
3109. Knapp, Robert R. (USN, San Diego, Calif.) **The validity of the objective-analytic personality test battery in Navy settings.** *Educ. psychol. Measmt.*, 1962, 22(2), 379-387.—The O-A Battery yielded higher predictive validity *r*'s than the MMPI and the Guilford-Zimmerman for 2 samples. The 1st consisted of 315 Navy enlisted men and the 2nd was a group of 81 Marine Corps officer pilots. Several different criteria were employed. The O-A Battery did not add significantly to a Mult. R for predicting cognitive criteria.—*W. Coleman.*
3110. Kodman, F., Jr., & McDaniel, E. (U. Kentucky) **Further investigation of the reliability of an MMPI scale for auditory malingerers.** *J. clin. Psychol.*, 1960, 16(4), 451.—"Sixty-five suspected malingerers, (selected on the basis of poor response reliability and a threshold elevation 15 db. or greater on a battery of hearing tests), were matched with 65 hard of hearing nonmalingerers. The subjects were administered the 68 (MMPI) items of the unvalidated malingering scale. A total of 19 significant items remained in the scale as a result of the cross-validation."—*V. J. Bielianskas.*
3111. Koppitz, Elizabeth. (Endicott Public Schools, N. Y.) **The Bender Gestalt Test for children: A normative study.** *J. clin. Psychol.*, 1960, 16(4), 432-435.—A normative study was undertaken to examine the Revised Scoring System for the Bender Gestalt Test for children and to observe certain development trends in Bender Gestalt drawings by children, ages 5.10 to 10.5. The drawings of 1055 school children were evaluated and mean scores and standard deviations were given for each age group. The results suggested that, "the Bender Gestalt differentiates both outstanding and immature visual motor perception up to age 8, thereafter it no longer discriminates at the upper end." Girls appeared to mature a little earlier than boys in visual motor expression, but this observation was not supported statistically. The revised scoring system was included.—*V. J. Bielianskas.*
3112. Kramer, Josefina. (Gurzelnasse 14, Solothurn, Switzerland) **Die Zuverlässigkeit des Kramer-Tests.** [Reliability of the Kramer test.] *Heilpädagog. Werkbl.*, 1962, 31(3), 100-108.—The Kramer Intelligence Test was repeated, usually after 3-3 years, on 220 Swiss school children. In 159 relatively stable children the average change was 2.49 IQ points, either up or down; in 61 difficult children the mean change was 6.04 points. Changes tended to be greater when test and retest were not administered by the same person. The author concludes that of the 220 Ss 79.09% showed a stable IQ (changing 5 points or less), 14.55% showed losses and 6.36% rises in IQ.—*D. F. Mindlin.*
3113. Lachmann, F. M., Bailey, M. A., & Berrick, M. E. (VA, New York Regular Office) **The relationship between manifest anxiety and clinicians' evaluations of projective test responses.** *J. clin.*

Psychol., 1961, 17(1), 11-13.—10 psychologists were given the Bender-Gestalt Test and the Draw-a-Person Test productions of 10 patients to rank in terms of the magnitude of anxiety which they observed in the drawings. Judgments of the psychologists were compared with the findings of the MA scale which had also been administered to the patients. "An inverse relationship between the psychologists' rankings from the projective tests and the MAS was noted. The results suggest either a lack of a unitary concept of anxiety among these clinical psychologists or that the two projective tests used in this study do not measure anxiety along the same continuum as the MAS."—*V. J. Bieliauskas*.

3114. Locke, E. A., & Hulin, C. L. (Cornell U.) **A review and evaluation of the validity studies of Activity Vector Analysis.** *Personnel Psychol.*, 1962, 15(2), 25-42.—The 18 available validation studies of Activity Vector Analysis, a short personality measure widely used for personnel selection in industry, were examined to see whether any of them demonstrated predictive validity. Various methods of validation were used in the studies. Analysis of weaknesses in procedures or interpretations of the data led the authors to conclude that the AVA has failed to demonstrate any practical utility as a selection device in industry.—*A. S. Thompson*.

3115. McGuirl, D., & Moss, C. S. (State Hosp. No. 1, Fulton, Mo.). **An indirect validation study of the Draw-A-Person Test through the cartoons of William Steig.** *J. proj. Tech.*, 1962, 26(1), 88-95.—Groups of normals, deaf Ss, and clinical psychologists matched Steig cartoons with captions and selected those matches about which they were most and least confident. The drawings were selected as highly meaningful caricatures of "body language." Ss correctly made a significant number of matches, although this appears to be correlated with intelligence. Psychologists did not demonstrate a greater capacity for this type of behavior. The implications is that the meanings of figure drawings are not universally understood even by a group sophisticated in projective assessment.—*A. F. Greenwald*.

3116. Maxwell, A. E. (Maudsley Hosp., U. London) **Inadequate reporting of normative test data.** *J. clin. Psychol.*, 1961, 17(1), 99-101.—Wechsler failed to include in the WISC manual the means, standard deviations, and frequency distributions for his raw scores. A study was conducted with the purpose of illustrating that such an omission presents a problem in the practical usage of the WISC. A group of psychiatric patients, children 9½-10½ years of age, 49 boys and 36 girls, were given the WISC. Although the results were roughly alike for boys and girls, the tabulation of means and standard deviations of the scaled scores suggested a greater dispersion than the expected value of 3 on the WISC. But since this data is not available in the manual, a direct check to verify this hunch was not possible. A detailed study confirmed the assumption that the transformation from raw to scaled scores on the psychiatric population was not linear. The author criticizes the inadequate reporting of normative data of tests.—*V. J. Bieliauskas*.

3117. Moreigne, F., & Senecal, J. **Résultats d'un groupe d'enfants africains au Terman-Merrill.** [Results of a group of African children on the Merrill-Terman.] *Rev. Psychol. appl.*, 1962, 12(1),

15-32.—During a period of 3 years the authors used a modification of Cesselin's French adaptation of the Merrill-Terman with African children. They tested 67 at 3, 202 at 4, 258 at 5, and 114 at 6 years of age. Average IQ's were 95 at 3, 93 at 4, 89 at 5, and 87 at 6 years of age. Details of the distributions are given. The correlations of IQs at 3 with those at 4 was .68; between 4 and 5, .76; between 5 and 6, .79; between 3 and 5, .62. Additional tables present longitudinal results for several Ss. The test, with minor adjustments, proved useful in an African milieu.—*W. W. Wattenberg*.

3118. Pandey, R. E. **Standardisation of Jalota's General Mental Ability Test on the Nepalese population.** *J. psychol. Res., Madras*, 1962, 6(1), 39.—The distribution of test scores and the reliability coefficients (.83-.89) shows that the test is applicable to Nepalese conditions. Grade norms for Classes 8, 9, and 10 are given.—*U. Pareek*.

3119. Wiens, A. N., & Banaka, W. H. (Oregon State Hosp.) **Estimating WAIS IQ from Shipley-Hartford scores: A cross validation.** *J. clin. Psychol.*, 1960, 16(4), 452.—Cross-validation of Sines and Simmons data reported earlier. 140 Ss comparable to their Ss were given the WAIS and the Hartford Test. The diagnostic categories of the group included all major psychiatric classifications. The correlation obtained between the scores of the 2 tests was .80, significant at .01 level. The regression equation and conversion table proposed by Sines and Simmons were also supported by this study. "It can be concluded that the Shipley-Hartford Scale may be used profitably in a hospital setting as a substitute for WAIS when economy of administration is desired."—*V. J. Bieliauskas*.

INTELLIGENCE & CREATIVITY

3120. Ammons, R. B., & Ammons, C. H. **How to foster genius: McCurdy extended.** *Proc. Mont. Acad. Sci.*, 1962, 21, 138-144.—"A learning analysis was made of the conditions found by McCurdy to characterize the childhoods of male geniuses. Applications of these principles were then made, suggesting ways to facilitate the development of genius. It is not at all surprising that genius develops so seldom in our current cultural environment."—*C. H. Ammons*.

3121. Ammons, C. H., & Ammons, R. B. **How to prevent genius: McCurdy revisited.** *Proc. Mont. Acad. Sci.*, 1962, 21, 145-152.—An evaluation of the results of a survey of cultural attitudes judged by McCurdy to be closely related to the development of genius in pre-adult years is given. Means of rewarding intellectually-creative behavior were contrasted with pressures toward conformity.—*Author abstract*.

3122. Ammons, R. B. **Toward a technology of intellectual originality and creativity.** *Proc. Mont. Acad. Sci.*, 1962, 21, 153-159.—Examination of 4 assumptions basic to a technology of creativity and work done in the laboratory, in classes, and in the general professional area at Montana State University supports the feasibility of developing a technology of creativity.—*C. H. Ammons*.

3123. Biggs, J. B. (National Found. Educational Research) **The relation of neuroticism and extraversion to intelligence and educational attainment.** *Brit. J. educ. Psychol.*, 1962, 32(2), 188-195.—The

article criticizes Eysenck's theory of condition-ability and a study supposedly based upon it by Lynn and Gordon. (30 ref.)—*B. T. Jensen.*

3124. Clément, F. (Centre de Gérontologie de l'Association Claude Bernard, Paris, France) **Réflexions a propos de la prétendue supériorité des femmes dans les épreuves de vocabulaire.** [Considerations as to the presumed superiority of women on vocabulary tests.] *Rev. Psychol. appl.*, 1962, 12 (2), 83-96.—From an aged population composed of 465 men and 307 women, groups were matched as to age, cultural level, intellectual ability, and memory. The vocabulary test from the Wechsler scale and the Binois-Pichot Vocabulary Test were administered. The results of the many comparisons led to the conclusion that on neither test was there any superiority for either sex. Correlations on the order of .65 were found between the vocabulary tests on the one hand and cultural level, intellectual ability, and memory on the other. Finally, a table was developed showing the IQ's corresponding to scores on the 2 vocabulary tests for populations similar in age and cultural level to the population used in the study.—*W. W. Wattenberg.*

3125. Digiammo, J. J., & Ebinger, R. D. (Fergus Falls State Hosp., Minn.) **The net-weighted H-T-P score as a measure of abstraction.** *J. clin. Psychol.*, 1961, 17(1), 55.—30 psychiatric patients of the receiving ward of a mental hospital, including schizophrenics neurotics, emotionally unstable personalities, and a few dull normal were given the House-Tree-Person Test (H-T-P) and the multiple-choice Proverbs Test. Both tests were scored according to the usual procedures and were correlated by the Spearman rank order correlation method. Correlations between the various H-T-P test scores and the Proverbs Test scores ranged from .67 to .55, the highest scores being net weighted, raw G, and good score. These findings suggested a positive correlation between the H-T-P scores and the Proverbs Test but they failed to support the hypothesis that the H-T-P net weighted score could be used as a specific indicator of abstraction.—*V. J. Bieliauskas.*

3126. Elley, W. B., & MacArthur, R. S. (U. Alberta) **The Standard Progressive Matrices as a culture-reduced measure of general intellectual ability.** *Alberta J. educ. Res.*, 1962, 8(1), 54-65.—For a representative sample of 271 Edmonton Grade 7 pupils, the Standard Progressive Matrices (1956) was found to: correlate significantly less with socioeconomic status than the CTMM—Language, have a high loading of 0.78 on a general intellectual ability factor and no loading on group factors emerging from the tests used, have a moderate relationship with school marks (.56) and achievement tests (.38 to .44), have reliability (internal consistency) of .87, and was as stable and predictive of school marks from Grades 3 to 7 as the CTMM.—*G. M. Della-Piana.*

3127. Estes, Betsy Worth; Curtin, Mary Ellen; DeBurger, Robert A., & Denny, Charlotte. (U. Kentucky) **Relationships between 1960 Stanford-Binet, 1937 Stanford-Binet, WISC, Raven, and Draw-a-Man.** *J. consult. Psychol.*, 1961, 25(5), 388-391.—Scores on the 1937 S-B, the 1960 S-B, and the WISC, were found to be comparable in an above-average group of school children. Age factor did not account for test discrepancies but there were highly significant discrepancies at superior level. Raven and

DAM estimates relate moderately well to the other tests.—*E. R. Oetting.*

3128. Hayes, Keith, J. (Loma Linda U. School Medicine) **Genes, drives, and intellect.** *Psychol. Rep.*, 1962, 10(2), 299-342. (Monogr. Suppl. No. 2-V10)—A review of "the literature relevant to a motivational-experiential theory [of intelligence] which proposes that: (a) manifest intelligence is nothing more than an accumulation of learned facts and skills, and (b) innate intellectual potential consist of tendencies to engage in activities conducive to learning, rather than inherited intellectual capacities, as such. These tendencies are referred to here as experience-producing drives (EPDs)." Among topics discussed in relation to the theory are brain damage, synthetic intelligence, language, mental growth, and some traditional views of intelligence. (155 ref.)—*B. J. House.*

3129. Hersch, C. (Cambridge Guidance Cent.) **The cognitive functioning of the creative person: A development analysis.** *J. proj. Tech.*, 1962, 26 (2), 193-200.—Findings support the hypothesis that both relatively mature and primitive processes are more available to the creative individual as compared with noncreative normals. Primitive operations among creators are more adaptive and capable of productive expression while primitive thinking among schizophrenics serves pathological ends.—*A. F. Greenwald.*

3130. Lessing, Elise Elkins. (Illinois Inst. Juvenile Research) **A note on the significance of discrepancies between Goodenough and Binet IQ scores.** *J. consult. Psychol.*, 1961, 25(5), 456-457.—". . . the discrepancy between Goodenough IQ's and IQ's on a standard test of intelligence can be as dramatically large in a nonclinic population as in the disturbed groups studied by Hinrichs [see 9: 4712] and Hanvik [see 27: 7773]."—*E. R. Oetting.*

3131. Lynn, R. (U. Exeter) **Comments on the article by J. B. Biggs.** *Brit. J. educ. Psychol.*, 1962, 32(2), 196-199.—Biggs misunderstands Eysenck's theory of conditionability as well as some of Lynn's work.—*B. T. Jensen.*

3132. Remondino, C. **Recherche sur la signification du facteur numérique.** [Study of the meaning of the numerical factor.] *Rev. Psychol. appl.*, 1962, 12(2), 63-81.—Thurstone and Coombs have given contrasting conceptions of the nature of Factor N. The former regards the factor as measuring ability to execute arithmetical operations; the latter, to work with any symbolic systems if they are perfectly known. A factor analysis was conducted on a battery of tests already known to measure the numerical factor plus a specially constructed test involving operations with non-numerical symbols. The tests were given to 5 populations in Italy representing groups ranging widely as to age, education, and class, and totaling 1130 Ss. Tables give the correlational matrices, the details of the factor analyses, and data on the populations. The results are interpreted as confirming Coombs' position.—*W. W. Wattenberg.*

3133. Solomondis, D. **Contribution a l'étude de l'efficiencia intellectuelle des malades mentaux.** [Contribution to the study of intellectual ability of mental patients.] *Rev. Psychol. appl.*, 1962, 12(2), 97-104.—2 tests, one similar to the Progressive Matrices and the other to Bennett's mechanical com-

prehension were administered to 3 populations: 164 normal individuals, 164 having motoric weaknesses, and 95 with mental disorders. Tabulations were made comparing the groups for each test on number of responses, number and percentage of omissions, good answers, and poor answers. In the mentally disordered population there was a high frequency of inadequate responses. Their intellectual dysfunctioning appeared to be characterized by relative inertia and incompleteness. Hypotheses are advanced as to causes of this situation.—*W. W. Wattenberg.*

PERSONALITY MEASUREMENT

3134. **Arnhoff, Franklyn N., & Damianopoulos, Ernest N.** (U. Miami) **Self-body recognition: An empirical approach to the body image.** *Merrill-Palmer Quart.*, 1962, 8(3), 143-148.—21 male college students recognized with 100% accuracy their own bodies, devoid of clothing, facial and situational cues, from among a series of 7 photographs, matching each other and ranging from maximal to minimal similarity. Degree of certainty as to correctness of choice varied.—*E. L. Robinson.*

3135. **Bauer, Raymond A.** (Harvard U.) **London revisited.** *Psychol. Rep.*, 1962, 10(2), 348.—A discussion of criticisms of the author's work by I. D. London (see *Psychol. Rep.*, 1961, 9, 615-621).—*B. J. House.*

3136. **Bendig, A. W.** (U. Pittsburgh) **Improving the factorial purity of Guilford's restraint and thoughtfulness scales.** *J. consult. Psychol.*, 1961, 25(5), 462.—". . . the moderate correlation between the regular R and T scales was due to the factorially impure item content of the scales."—*E. R. Oetting.*

3137. **Carlson, Earl R.** (Michigan State U.) **Motivation and set in acquiring information about persons.** *J. Pers.*, 1961, 29(3), 285-293.—Ss in 2 experimental groups responded to the Edwards Personal Preference Schedule (EPPS) and read 3 personality descriptions composed of items related to the EPPS need scales. One group read the descriptions to choose which they would "most like as a friend," while the 2nd group read the same descriptions to choose which "would make the best leader in a social group on campus." Ss then wrote as complete a description of each personality as they were able, and the responses were scored for accuracy of recall for each need. Results: (a) Ss recalled more characteristics related to their high intensity needs; (b) the number of Ss recalling each characteristic was positively related to the perceived desirability of the characteristic for the set; (c) high-recall Ss were significantly higher in Affiliation and Heterosexuality scores than low-recall Ss; (d) information related to Dominance or Heterosexuality was recalled more frequently than that related to Change, Succorance, or Intraception.—*G. T. Lodge.*

3138. **Centers, R.** (U. California, Los Angeles) **An examination of the Riesman social character typology: A metropolitan survey.** *Sociometry*, 1962, 25(3), 231-240.—A personal interview survey was conducted with a cross section of adults in greater Los Angeles to study the distributive characteristics of the Riesman social character typology. Respondents were administered a test of inner-other-directedness (see 37: 3148), and their scores were related to several variables to test the validity of Riesman's asser-

tions that other-directedness is most prevalent in the middle-class and is increasing. "Inner-other-directedness was found to be normally distributed, without appreciable correlation with socio-economic indices, but with other-directedness being more common in younger people ($r=.16$). The latter finding . . . [supports] Riesman's claim that other-directedness is becoming more prevalent in America."—*H. P. Shelley.*

3139. **Cerbus, G., & Nichols, R. C.** (Purdue U.) **Personality correlates of picture preferences.** *J. abnorm. soc. Psychol.*, 1962, 64(1), 75-78.—Preference for certain structural dimensions of pictures (color, degree of abstract representation, human-non-human content) was related to personality factors (as measured by 3 inventories). Ss were VA psychiatric patients and college students. Of the 189 intercorrelations of variables for the 224 Ss, 22 were statistically significant; these are presented and discussed.—*G. Frank.*

3140. **Crokes, T. G., & Keller, Anna.** (St. John's Hosp., Aylesbury, England) **Rorschach card rejection and IQ.** *J. clin. Psychol.*, 1960, 16(4), 424-426.—A replication of Tamkin's report of negative correlation between IQ and number of Rorschach cards rejected by male patients. 293 adult female psychotic patients and 217 children were included. The IQ's were obtained with the Wechsler-Bellevue, Form I, WISC and the Revised Stanford-Binet tests. The results confirmed Tamkin's findings for all Ss, children and adults.—*V. J. Bieliauskas.*

3141. **Cunningham, Anne.** (U. Kentucky) **Relation of sense of humor to intelligence.** *J. soc. Psychol.*, 1962, 57(1), 143-147.—The relation of humor (as measured by the Raley Cartoon Test) to intelligence (as measured by the Thurstone Test of Mental Alertness) was examined. Ss were 70 freshmen high school girls, all within a one-year age range. The only significant correlation was a $-.25$ with the total score of the Thurstone Test. These results do not agree with previous studies on the relationships between humor and intelligence. A possible explanation as to this discrepancy may be that the Raley Cartoon Test is a more exact test of sense of humor than previous tests and, therefore, less influenced by intelligence. The disagreement may also be due to the variety of procedures utilized as measurements of intelligence and humor in other studies. The relations of the Raley test with other types of intelligence tests should be studied.—*Author abstract.*

3142. **Dale, C., Logan, R., & Ammons, R. B.** **Some interview characteristics of persons placing high value and persons placing low value on intellectual activity.** *Proc. Mont. Acad. Sci.*, 1962, 21, 113-119.—"Sixteen highly selected Ss participated in an interview study of correlates of extremely high and extremely low scores on the Cultural Information Survey, a scale measuring level of value placed on intellectual activity. Each S answered 35 questions. No important differences related to two different interviewing methods were detected. A number of differences between Ss who scored high (placed high value on intellectual activity) and Ss who scored low (placed little value on intellectual activity) were found. The definite differences between Ss scoring extremely high and those scoring extremely low on the CIS suggest that interviewing can provide a great deal of useful information about the experiential cor-

relates of value placed on intellectual activity."—C. H. Ammons.

3143. Diers, Carol Jean. (U. Washington) Social desirability and acquiescence in response to personality items. *Dissert. Abstr.*, 1961, 22(5), 1709.—Abstract.

3144. Dightman, C. R., & Fahrion, S. L. An experimental approach to the study of empathy. *Proc. Mont. Acad. Sci.*, 1962, 21, 124-131.—"The results of this experiment demonstrate that this empathy quiz . . . measures some significant factor in interpersonal relations. Future work is planned to validate the quiz further, making sure that empathy, as it is objectively defined, is the factor actually being measured."—C. H. Ammons.

3145. Dunnette, M. D., McCartney, Jean; Carlson, H. C., & Kirchner, W. K. (U. Minnesota) A study of faking behavior on a forced-choice self-description checklist. *Personnel Psychol.*, 1962, 15(2), 13-24.—This study of the Adjective Checklist investigated the extent to which it could be faked, the extent to which it actually is faked in employment settings, and the effect of faking on validity of the Checklist scores for assertiveness, sales effectiveness, cooperativeness, calmness, reasoning, conscientiousness, and imaginativeness. Administered to salesmen and sales applicants, scores were distorted in the direction of the sales stereotype, when the testees were told to fake. In employment situations, few applicants tend to fake. Directed faking seriously distorts validities of scores for predicting selling effectiveness; scales with greatest potential validity are those which are likely to be most distorted by sales applicants.—A. S. Thompson.

3146. Hokanson, J. E. (Florida State U.) The effects of guilt arousal and severity of discipline on adult aggressive behavior. *J. clin. Psychol.*, 1961, 17(1), 29-32.—In using Siegal Manifest Hostility scale, 3 TAT cards and the impressions rating of 2 specially designed protocols, 80 white male undergraduate students were selected from a pool of 375 males. $\frac{1}{2}$ of these Ss were classified as high test hostility Ss and the other $\frac{1}{2}$ as low test hostility Ss. Aggressive behavior towards the experiment was tested by using special findings, indicating among other things, that Ss admitting strong feelings of aggressiveness on psychological tests perceive their fathers as having been significantly less punitive than either their mothers or the parents of the low test hostility Ss.—V. J. Bieliauskas.

3147. Kamano, D. K. (State Research Hosp., Galesburg, Ill.) An investigation on the meaning of human figure drawing. *J. clin. Psychol.*, 1960, 16(4), 429-430.—45 institutionalized women diagnosed as schizophrenics, age 18-38, were instructed to "draw a woman." After the drawings were completed each S was asked to rate her own drawing on the semantic differential scale devised according to the criteria of Osgood, et al. 4 concepts were included to compare the meaning or associations assigned by each S: to My Ideal Self, My Actual Self, and My Least Liked Self. "The Ss tended to draw a figure that represented themselves much more than an ideal or an unfavorable one. This was interpreted as supporting the hypothesis that human figure drawings do represent the drawer's perception of self."—V. J. Bieliauskas.

3148. Kassarian, W. M. (U. California, Los Angeles) A study of Riesman's theory of social character. *Sociometry*, 1962, 25(3), 213-230.—"An empirical test of Riesman's theory of social character was carried out by constructing a five-point rating scale made up of 36 two choice items on inner-other-directedness, using undergraduate college students. Satisfactory reliability was obtained by the test-retest method, while validity was established both by predicting performance of predetermined groups of graduate students and by a comparison with actual social behavior. Application of a modified version of the scale to the general population yielded findings generally in accord with the theory. The study found Riesman's theory amenable to testing by means of an objective instrument, and the results constitute a support of his propositions." The complete inner-other-directedness scale is published.—H. P. Shelley.

3149. Kerr, M., Maki, B., & Ammons, R. B. Personality, values, and "intellectualism." *Proc. Mont. Acad. Sci.*, 1962, 21, 132-136.—"Comparisons were made of MMPI and Allport-Vernon scores of male and female college Ss placing relatively high, moderate, or relatively low value on intellectual activities. There were 39 Ss in each of the three male groups, and 17 Ss in each of the three female groups. A number of within-sex differences were found among the groups in mean MMPI and AV scores. The validity and utility of the MMPI in research studies for measuring fundamental dimensions of personality were questioned . . . [and] research problems . . . noted. Persons placing high value on intellectual activities differ markedly in personality characteristics from those placing low value on intellectual activities, but the exact nature of these differences must be explored."—C. H. Ammons.

3150. McGee, Richard Keith. (Vanderbilt U.) The relationship between response style and personality variables: Acquiescence and social orientation. *Dissert. Abstr.*, 1961, 22(4), 1257.—Abstract.

3151. Liggett, J. (King's Coll. Newcastle upon Tyne, 1, England) Eine neue Methode zur Untersuchung der Social Perception und der Selbsteinschätzung. [A new method for the assessment of social perception and self evaluation.] *Psychol. Beitr.*, 1962, 7(1), 101-120.—A short method, the Self-Evaluation Test (SVT), is described. This test is designed to collect information about the concepts which arise in an individual's perception of the social world around him and to assess his evaluation of the qualities that he perceives in himself and others. 7 human portraits were ranked by paired comparisons according to several different sorting qualities, and the correlation between any 2 rank orders was used as a measure of the phenomenal identity of the 2 ranking qualities. (English & French summaries)—H. J. Priester.

3152. McGreevey, J. C. (Clark County Mental Health Cent.) Interlevel disparity and predictive efficiency. *J. proj. Tech.*, 1962, 26(1), 80-87.—Questionnaire tests for non-ego-threatened traits more accurately predict selfconcept while predictions of peer concept are equally accomplished by questionnaire tests for ego-threatened tests. Clinical predictions from projective tests differed significantly from defensive Ss conscious descriptions. It appears that nondefensive Ss are consistent in their test behavior on direct and projective methods while defensive Ss

reveal something different of themselves on each type of device.—A. F. Greenwald.

3153. Phares, E. J. (Kansas State U.) **A note on authoritarianism and attitudes toward parents.** *J. clin. Psychol.*, 1960, 16(4), 389-390.—A modification of the California F scale was used to test the hypothesis that when the Ss scoring high and low on this scale were asked to list both positive and negative characteristics of their parents the low F Ss will list a higher proportion of negative qualities than will the high F Ss. 31 female and 33 male students in psychology classes were used as Ss for this study. Their responses were evaluated by 2 judges who were not cognizant of the F scale scores. The average agreement among the judges was 98% and the results provided support for the hypothesis at a statistically significant level.—V. J. Bieliauskas.

3154. Reel, Windle Delmar. (U. Nebraska Teachers Coll.) **A study of the relationship between personal information and social skills rating.** *Dissert. Abstr.*, 1961, 22(4), 1286.—Abstract.

3155. Renner, K. Edward; Maher, Brendan A., & Campbell, Donald T. (U. Pennsylvania) **The validity of a method for scoring sentence-completion responses for anxiety, dependency, and hostility.** *J. appl. Psychol.*, 1962, 46(4), 285-290.—A scoring-by-example manual was developed for use with the Rotter Incomplete Sentence Blank for scoring 3 variables. The aim was to provide an objective scoring technique for the variables and to examine validity and discriminant scorer reliability by means of a multitrait-multimethod matrix. Validity data were obtained from a college population, the criterion being peer reputation measures of the variables. Self-descriptions provided a minimum competitive standard against which to judge the value of sentence-completion scoring. Discriminant scorer reliability was demonstrated and internal consistency reliability examined. The validity coefficients were modest but promising and provide a background against which future multitrait-multimethod examinations of other tests and keys can be evaluated.—Journal abstract.

3156. Rimland, Bernard. (USN Personnel Research Activity, San Diego) **A scoring technique for reducing the effects of response bias in personality tests.** *Psychol. Rep.*, 1962, 10(2), 546.—The use of artificially skewed score distributions which magnify differences among low scorers is advocated as a method of reducing the advantage of falsifiers.—B. J. House.

3157. Rosenberg, Marshall B. (U. Wisconsin) **Situational structure and self evaluation.** *Dissert. Abstr.*, 1961, 22(6), 2072-2073.—Abstract.

3158. Santostefano, S. (U. Colorado, School Medicine) **An exploration of performance measures of personality.** *J. clin. Psychol.*, 1960, 16(4), 373-377.—An attempt was made in this study to devise tasks, "eliciting unitary, easily identified acts, judged to have psychological meaning in which satisfied criteria of space and time were involved." 5 factors were obtained which appear to be significant and which tend to describe the personality on a basis of certain overt actions. These findings suggested that it might be advisable to develop more extensive performance testing for personality evaluation.—V. J. Bieliauskas.

3159. Santostefano, Sebastian. (U. Colorado School Medicine) **Performance testing of personality.** *Merrill-Palmer Quart.*, 1962, 8(2), 83-97.—A survey of situational testing techniques from Galton to the present "suggests that much of the groundwork has already been laid for the development of promising techniques." (72 ref.)—E. L. Robinson.

3160. Schaie, K. Warner. (U. Nebraska) **On the equivalence of questionnaire and rating data.** *Psychol. Rep.*, 1962, 10(2), 521-522.—"The equivalence of Cattell's basic personality factors for the questionnaire and behavior rating domains was tested by conducting a multiple group factor analysis on the correlations among questionnaire and rating data on a group of 43 delinquent institutionalized girls. Equivocal results suggest that factor matching may depend on the specific characteristics of questionnaire responders and their raters."—B. J. House.

3161. Shanan, J. (Hadassah U. Hosp., Jerusalem) **Intraindividual response variability in figure drawing tasks.** *J. proj. Tech.*, 1962, 26(1), 105-111.—Greater consistency in DAP performance seems to be associated with clarity of external stimuli. Intraindividual variability is greatest when instructions are ambiguous (e.g., "draw a person"). Anxiety arousing situations apparently contribute to higher levels of variability.—A. F. Greenwald.

3162. Shultz, Meyer. (American U.) **Competence and stress: An analysis of individual differences in test performance.** *Dissert. Abstr.*, 1961, 22(4), 1243.—Abstract.

3163. Theiner, E. C. (Lackland AFB) **The magnitude of four experimental needs as expressed by two projective techniques.** *J. proj. Tech.*, 1962, 26(3), 354-365.—A group of 80 male students displayed a greater number of unacceptable needs (Successance and Agression) and a lesser amount of acceptable needs (Affiliation and Achievement) on the TAT than on the Incomplete Sentences Blank.—A. Greenwald.

3164. Tóth, Béla. **A beszédanalízis, mint a személyiségvizsgálat módszere.** [Speech analysis as a method of personality research.] *Pszichol. Tanulmányok*, 1958, 1, 71-75.—The phenomenon of audible speech is regarded as being closely connected with personality. A new method of speech analysis of the static and dynamic factors of speech is designed to shed light on these connections. At this point, however, speech analysis can only be used as an adjunct to other methods of personality assessments. References are made to the author's book entitled *Speech, Character and Personality*. (Russian & English summaries)—E. Friedman.

3165. Weinberg, G. H., Fluckiger, F. A., & Tripp, C. A. (Handwriting Inst., N. Y.) **The application of a new matching technique.** *J. proj. Tech.*, 1962, 26(2), 221-224.—A modification in the procedure for matching personality sketches with handwriting samples permitted judges initially to relate a number of sketches to each sample and then to narrow their final selection to a one-to-one relationship as would have been accomplished directly using the old procedure. Judges using both the old and new methods of matching performed significantly better with the new matching procedure.—A. F. Greenwald.

3166. Willingham, W. W., & Ambler, R. K. (USN School Aviation Medicine, Pensacola, Fla.) **Comparison of methods for deriving peer nomination scores.** *USN Sch. Aviat. Med. res. Rep.*, 1962, Proj. MR005.13-3003, Subtask 1, Rep. No. 35, ii, 5 p.—The purpose of this study was to determine by empirical means the optimal method for scaling peer nomination scores for groups of unequal size. Within-section peer nominations for the traits of Cautiousness, Original Thinking, Personal Relations, and Vigor were obtained for 208 naval aviation cadets divided into 11 sections of unequal size. These nominations were scaled by 6 methods. These distributions then were correlated with the Gordon Personal Inventory scales for the same traits. It was concluded that the type of score typically used is inferior. Relatively simple modifications will result in more precise measurement.—*USN SAM*.

Inventories

3167. Adams, G. S. (Los Angeles State Coll.) **Techniques de minimisation et d'exploitation des tendances de réponse dans les inventaires structurés d'auto-évaluation.** [Techniques for minimizing and exploiting response tendencies in structured self-evaluation inventories.] *Rev. Psychol. appl.*, 1961, 11(4), 303-341.—The problem posed by response tendencies is to exploit them when the effect is to improve validity and to eliminate their influence when it is undesirable. The methods for constructing and choosing tests to minimize distortion of responses are reviewed. Attention is then given to procedures for developing corrective scales to be used in discounting response tendencies. Another procedure is to develop inventories where the structure is disguised. (272 item bibliogr.)—*W. W. Wattenberg*.

3168. Amati, G., Ragozzino, D., & Procaccini, S. **Rilievi e considerazioni sulla validità dell'impiego del Minnesota Multiphasic Personality Inventory (M.M.P.I.) nella pratica psichiatrico-forense.** [Notes and considerations on the validity for the use of the Minnesota Multiphasic Personality Inventory in Psychiatric legal practice.] *Arch. Psicol. Neurol. Psichiat.*, 1962, 23(3), 249-273.—There is a high frequency of agreement between psychiatrically conclusive judgment and psychodiagnostic profile obtained by applying the MMPI to 30 individuals guilty of various crimes.—*L. L'Abate*.

3169. Bendig, A. W. (U. Pittsburgh) **Factor analyses of the Guilford Zimmerman Temperament Survey and the Maudsley Personality Inventory.** *J. gen. Psychol.*, 1962, 67, 21-26.—The Guilford Zimmerman Temperament Survey and the Maudsley Personality Inventory were administered to 2 samples of male Ss (N 's = 54 and 58) and scores from the 12 scales included in the 2 inventories were separately intercorrelated for each sample. Centroid factor analyses of each correlation matrix yielded 4 significant factors which after oblique rotation were identified as the Extraversion-Introversion (EI), Emotionality (EM), Social Activity (SA), and friendliness (Fr) factors previously found in the GZTS. Although the MPI Neuroticism scale was heavily loaded on the Emotionality factor as expected, the MPI Extraversion scale was loaded on the Social Activity factor rather than on the Extraversion-Introversion factor. It was suggested that, because of the pool of items used by Eysenck in constructing

the MPI Extraversion scale, this scale does not measure the factor it was originally intended to measure.—*Author abstract*.

3170. Chyatte, C., & Goldman, I. J. (DePaul U.) **The willingness of actors to admit to socially undesirable behavior on the MMPI.** *J. clin. Psychol.*, 1961, 17(1), 44-47 actors were given the MMPI and their responses were evaluated in terms of the Subtle-Obvious scales of this test. The differences on the Subtle-Obvious scores failed to support the hypothesis that actors tend to show willingness to admit to unfavorable characteristics of their own; the K correction indicated that they tended to deny some aberrant tendencies.—*V. J. Bieliauskas*.

3171. Comrey, Andrew L., & Schlesinger, Beth. (U. California) **Verification and extension of a system of personality dimensions.** *J. appl. Psychol.*, 1962, 46(4), 257-262.—This study continues a program devoted to the development of a system of factored homogeneous item dimensions (FHIDs) in the area of personality questionnaires. 6 multiple choice items were used for each of 32 personality dimensions and 4 validation scales. These items were dispersed in a questionnaire and administered to 506 volunteer male and female Ss, preponderately college students. 3 factor analyses of items, each with 72 items from 12 of the 36 dimensions, revealed 14 FHIDs for which every item had a loading of .5 or more. Factor analysis of the 36 total FHID score variables plus 9 background data variables resulted in the major personality factors: shyness, dependence, dominance, hostility, and compulsiveness.—*Journal abstract*.

3172. Eckhardt, W. (Western State Hosp., Hopkingsville, Ky.) **Piotrowski's signs: Organic or functional?** *J. clin. Psychol.*, 1961, 17(1), 36-38.—750 Rorschach records of the North Carolina State Hospitals were evaluated in terms of Piotrowski's signs. "These results suggested that 5 or more signs were statistically reliable indicators of intellectual impairment, although this impairment might be congenital or functional as well as organic in origin." Other evaluation of the data suggested in North Carolina state hospitals, Piotrowski's signs are more likely to diagnose mental deficiency and schizophrenic reaction than brain disorder.—*V. J. Bieliauskas*.

3173. Gibson, H. B. **The Lie Scale of the Maudsley Personality Inventory.** *Acta psychol., Amsterdam*, 1962, 20(1), 18-23.—The majority of items intended to reveal lying do in fact do so. "Liar" respondents award themselves low N (neurosis) scores but differ little from the population in E (extraversion) scores. The former carries social stigma, the latter does not. Personal, social, or business advantage may also influence lie responses.—*G. Rubin-Rabson*.

3174. Gocka, E. F. (VA Hosp., American Lake, Wash.) **The introversion-extraversion factor and social desirability.** *J. clin. Psychol.*, 1960, 16(4), 380-383.—84 hospitalized male patients with former diagnosis of schizophrenia who were scheduled for a discharge at the time of this study were given the MMPI. Their responses were evaluated in terms of the Social Desirability scale, and the Introvert-Extravert scale. The findings were essentially the same as those reported by Edwards et al. However, when the introversion-extraversion dimensions were divided into sub scales made up totally of X type or O type items and a correlation with the MMPI scales at-

tempted, findings did not support the idea that X-O balance accounts entirely for a low correlation between a total scale and SD. The suggestion was made that possibly the introversion-extraversion factor is not as independent of the SD factor in the MMPI as some authors tend to assume.—V. J. Bieliauskas.

3175. Gocka, E. F., & Marks, J. B. (VA Hosp., American Lake, Wash.) **Second-order factors in the 16 PF test and MMPI inventory.** *J. clin. Psychol.*, 1961, 17(1), 32-35.—The study represents a replication of Cattell's 2nd-order personality factor studies with an attempt to co-ordinate the Sixteen Personality Factor Questionnaire (16 PF) factor scales with comparable MMPI factors. 84 hospitalized patients who had a former diagnosis of schizophrenia but who were at the point of being discharged were used as Ss. They were given the MMPI and the 16 PF—Form C tests. The degree of replication (of previous studies) was directly related to the amount of variance accounted for by each factor, such that the 1st factor had maximum correspondence with previous findings while the 4th factor had least.—V. J. Bieliauskas.

3176. Karson, S. (Dade County Child Guidance Clinic, Miami, Fla.) **Second-order personality factors in positive mental health.** *J. clin. Psychol.*, 1961, 17(1), 14-19.—In order to clarify the meaning of the primary factors in the Cattell Sixteen Personality Factor Questionnaire and to identify the 2nd-order personality factors, a replication of the Cattell study was attempted on United States Air Force airmen undergoing recruiting training. Forms A and B of the 16 P-F study were administered to a sample of 96 recruits. The test scores were then evaluated following the technique suggested by Cattell. The factors of extraversion vs. introversion, anxiety vs. dynamic integration, and obsessive-compulsivity vs. sociopathic deviance appeared to be a clear replication of a previously identified 2nd-order factor. It was suggested that other factors may need additional studies for further application.—V. J. Bieliauskas.

3177. Langer, Philip. (Utah State U.) **Sex differences in response set.** *J. Psychol.*, 1962, 54(1), 203-207.—The Gough Adjective Checklist was administered to 110 Ss at Trenton State College, who were told to give a "real self-image." Scores were analyzed to yield the agree-disagree and desirability-undesirability dimensions of response set. 4 groups were formed; male agree-set ($N=17$), male disagree-set ($N=18$), female agree-set ($N=47$), and female disagree-set ($N=48$). 2 weeks later the Ss gave an "ideal self-image" on the Gough. Both male subgroups showed significant trends toward increased agreeing sets. Both female groups showed significant variability within each subgroup, but the direction of change was about equally divided.—*Author abstract.*

3178. Lewin, Mark Henry. (U. Wisconsin) **Change in social desirability responses as a function of direct instructions, verbal reinforcement, role playing, and counter-conditioning.** *Dissert. Abstr.*, 1961, 22(3), 916.—*Abstract.*

3179. Pichot, P., Perse, J., & Zimbardo, N. **Étude sur la fidélité de l'Inventaire Multiphasique de Personnalité du Minnesota (M.M.P.I.) par la méthode du partage par moitié.** [Study of the reliability of the MMPI by the split-half method.] *Rev. Psychol. appl.*, 1961, 11(4), 297-301.—Previous studies of the MMPI have used the test-retest method. In

this study, 2 subscales for each of the original scales were obtained by choosing an equal number of items from each and placing them in a subtest. (Because of the small number of items this could not be done for the L Scale.) The subtests were both administered to 50 men and 50 women unselected psychiatric patients. Coefficients of correlation were computed and corrected for attenuation by the Spearman-Brown formula. The weakest correlations were .63 on the K scale for the men and .49 on the MA scale for the women. Most correlations were in the .70's. It is concluded that the scales have a satisfactory homogeneity.—W. W. Wattenberg.

3180. Saltz, Eli; Reece, Michael, & Ager, Joel. (Wayne State U.) **Studies of forced-choice methodology: Individual differences in social desirability.** *Educ. psychol. Measmt.*, 1962, 22(2), 365-370.—The forced-choice technique is useful in eliminating group standards of social desirability for a test, but it does not solve the problem of evaluating the consequences of individual social desirability. However, individual social desirability was found to be a source of reliable variance in a study using the Edwards Personal Preference Schedule. A factor analytic study now in progress is intended to assess the relative contribution of individual social desirability to total test variance.—W. Coleman.

3181. Stricker, G. (U. Rochester) **A comparison of two MMPI prejudice scales.** *J. clin. Psychol.*, 1961, 17(1), 43.—"The group form of the MMPI was administered to 390 male college freshmen. Their scores on the Gough and Altus and Tafejian scales of prejudice were compared, and a correlation of .59 was discovered. Alternative methods of using these scales were recommended."—V. J. Bieliauskas.

3182. Walker, Jerald Neil. (U. Washington) **An examination of the role of the experimentally determined response set in evaluating Edwards' Social Desirability scale.** *Dissert. Abstr.*, 1961, 22(5), 1712-1713.—*Abstract.*

3183. Wiggins, Jerry S. (Stanford U.) **Strategic, method, and stylistic variance in the MMPI.** *Psychol. Bull.*, 1962, 59(3), 224-242.—"Strategic variance arises in the assessment of an S's communality with respect to a normative group on a dimension defined by contrast with a criterion group. Method variance is due to the idiosyncratic nature of the total item pool in regard to the proportion of true and false keyings and the distribution of item popularity values. (Stylistic variance includes dispositions to agree (acquiescence) or disagree (cautiousness) with neutral statements, independently of item content." In these terms, relevant research with the MMPI is reviewed.—W. J. Meyer.

3184. Willingham, W. W., & Ambler, R. K. (USN School Aviation Medicine, Pensacola, Fla.) **The relation of the Gordon Personal Inventory to several external criteria.** *USN Sch. Aviat. Med. res. Rep.*, 1962, Proj. MR005.13-3003, Subtask 1, Rep. No. 34. ii, 5 p.—This investigation studied the relationship between 4 personality traits as measured by the Gordon Personal Inventory (GPI) and several external criteria consisting of peer nominations of the same traits. Peer nominations and GPI scores for 208 naval aviation cadets divided into 11 sections of unequal size were analyzed. 3 of the GPI scales showed moderate correlations with external criteria.

A 4th was not significantly correlated with a criterion which it supposedly should predict well. Implications of the findings are discussed.—*USN SAM*.

Projective Methods

3185. **Berger, L., & Everstine, L.** (Franklin D. Roosevelt VA Hosp., Montrose) **Test-retest reliability of the Blacky Pictures test.** *J. proj. Tech.*, 1962, 26(2), 225-226.—Analysis of Blacky test records of 50 male college students revealed significant test-retest correlations on all 13 test dimensional scores and all 4 patterns of conflict.—*A. F. Greenwald*.
3186. **Block, W. E.** (Yeshiva U.) **Psychometric aspects of the Rorschach technique.** *J. proj. Tech.*, 1962, 26(2), 162-172.—"Viewing the Rorschach psychometrically, we find a plethora of mixed, sometimes contradictory psychometric methods operating, crude application of measurement principles, quasi-objective scoring, low reliability because of unknown triadic interactions among testee-tester, and groping, sometimes naive, sometimes sophisticated, for a valid rationale." The author suggests acceptance of Rorschach as a purely empirical technique with a shift in emphasis to how the S adjusts to the contemporary test situation. Revision of the present scoring procedures is also suggested.—*A. F. Greenwald*.
3187. **Bloom, B. L.** (Hawaii State Hosp.) **The Rorschach popular response among Hawaiian schizophrenics.** *J. proj. Tech.*, 1962, 26(2), 173-181.—Hospitalized Hawaiian schizophrenics produced 9 popular responses previously found among a normal reference group. Degree of popularity was presented as a relevant factor, and no ecological influence on development of P was found. "There may be a non-linear relationship between degree of psychopathology and frequency of perception of P."—*A. F. Greenwald*.
3188. **Blum, G. S.** (U. Michigan) **A guide for research use of the Blacky Pictures.** *J. proj. Tech.*, 1962, 26(1), 3-29.—A factor analysis of Blacky responses elicited from 210 male undergraduates produced 30 factors which are given dynamic interpretations. Significant relationships between factors along with their relationship to criterion variables are presented. This approach to evaluating Blacky responses clarifies already existing scoring procedures and provides a guide for the systematic interpretation of test records.—*A. F. Greenwald*.
3189. **Dana, R. H.** (West Virginia U.) **The validation of projective tests.** *J. proj. Tech.*, 1962, 26(2), 182-186.—Construct validity should be established as a base from which further empirical and content validation studies of projective techniques may be launched. The importance of clarifying clinical concepts prior to attempting predictions of outcome variables is stressed.—*A. F. Greenwald*.
3190. **Davis, Harold Bernard.** (Michigan State U.) **Some symbolic meanings of the Rorschach inkblots.** *Dissert. Abstr.*, 1962, 22(12), 4405-4406.—*Abstract*.
3191. **Exner, J. E., Jr.** (Depauw U.) **The effect of color on productivity in Cards VIII, IX, X of the Rorschach.** *J. proj. Tech.*, 1962, 26(1), 30-33.—Results with 40 college students tend to indicate that color does affect Rorschach productivity on Cards VIII, IX, and X. Achromatic cards do not appear to affect the development of popular responses "animal" and "spider" or "crab" on VIII and X respectively.—*A. F. Greenwald*.
3192. **Filmer-Bennett, G., & Klopfer, W. G.** (Winnebago State Hosp.) **Levels of awareness in projective tests.** *J. proj. Tech.*, 1962, 26(1), 34-35.—Psychologists using TAT and Sentence Completion responses attempted to predict selfratings of 20 junior college women who rated themselves along continua for communication, intellect, conventionality, and sensitivity. Only TAT data bearing on communicability contributed to significant predictions. The notion that Sentence Completion elicits material closer to consciousness than does the TAT is not substantiated by the findings.—*A. F. Greenwald*.
3193. **Fisher, S.** **Relationship of Rorschach human percepts to projective descriptions with self reference.** *J. proj. Tech.*, 1962, 26(2), 231-233.—Ss with high H scores on Rorschach tended to project significantly more positive self-descriptions while fearing a series of masks than did Ss with low H scores.—*A. F. Greenwald*.
3194. **Gill, Harwant Singh.** (Boston U.) **Delay of response in problem solving and color response to Rorschach stimuli.** *Dissert. Abstr.*, 1961, 22(4), 252.—*Abstract*.
3195. **Glymour, C., Ammons, C. H., & Ammons, R. B.** **Projective test protocols of students placing extreme (high or low) value on intellectual activity.** *Proc. Mont. Acad. Sci.*, 1962, 21, 105-112.—Comparisons of TAT and Rorschach responses were made for male and female students placing extremely high or extremely low value on intellectual activity, as measured by the Cultural Information Survey (CIS). Analyses were based on protocols obtained by individual and by group administration of the TAT and by group administration of the Rorschach. Analysis of the 2 sets of TAT protocols revealed no important differences between the extreme CIS scorers, with the possible exception that high CIS females in both cases used explicitly stated reasoning to develop their story lines. There was no cross validation of differences between the 2 pairs of male Ss. Rorschach responses of females suggested that high CIS scorers were somewhat more anxious, impulsive, abstraction-oriented, and potentially creative. Some possible reasons for the meagre results with the TAT were discussed, and further studies suggested.—*C. H. Ammons*.
3196. **Goldfried, M. R.** (U. Rochester) **Some normative data on Rorschach developmental level "card pull" in a psychiatric population.** *J. proj. Tech.*, 1962, 26(3), 283-287.—The level of perceptual organization usually elicited by each card among a group of 110 male psychiatric patients is presented. The blot with the highest developmental level was Card III, the lowest D L was Card IX. A correlation between Rorschach D L and IQ was demonstrated in this psychiatric population and suggests further investigation among other populations.—*A. Greenwald*.
3197. **Levine, M., & Spivack, G.** (Devereux Found. Inst.) **Human movement responses and verbal expression in the Rorschach test.** *J. proj. Tech.*, 1962, 26(3), 299-304.—A positive relationship was found to exist between an index of repression score and movement responses. It is suggested that the Rorschach elicits a characteristic style of verbal

expression which reflects the level of personality differentiation.—*A. Greenwald.*

3198. Levitt, E. E., Lubin, B., & Zuckerman, M. (Indiana U. Medical Cent.) A simplified method of scoring Rorschach content for dependency. *J. proj. Tech.*, 1962, 26(2), 234-236.—Evidence is offered as to the reliability of scoring Rorschach content for dependency. Construct validity is suggested by findings that volunteers for an hypnosis experiment score significantly higher on dependency than do nonvolunteers.—*A. F. Greenwald.*

3199. Lindzey, Gardner. Projective techniques and cross-cultural research. New York: Appleton-Century-Crofts, 1961. ix, 339 p. \$6.00.—Written primarily for applications in anthropological research. Definitions, theoretical foundations, varieties, and the interpretive process of projective techniques are explored.—*C. W. Page.*

3200. Marks, P. (U. Kansas Medical Cent.) Effects of texture and form on the popular response to Card VI of the Rorschach. *J. clin. Psychol.*, 1961, 17(1), 38-41.—An attempt was made to study the determinants of the popular response to the standard blot, Card VI, on the Rorschach test. 71 Ss were given the standard and experimental Card VI of the Rorschach test in counterbalanced order. No significant differences were found between the total number of responses on both cards. "A significantly greater number of Ss responded to texture rather than form, but form was a sufficient stimulus for the popular response.—*V. J. Bieliauskas.*

3201. Moos, R. H. (U. California School Medicine) Effects of training on students' test interpretations. *J. proj. Tech.*, 1962, 26(3), 310-317.—A seminar combining instruction in MMPI with introduction to Q-sorting resulted in closer agreement between student and expert interpretations. A semester's exposure to Rorschach without Q-sort instruction produced no significant improvement in students' interpretations. "The findings clearly emphasize the large amount of error variance in test interpretations, and support the often cited superiority of the inter-sorter agreement which can be achieved in the interpretations of empirical objective tests, such as the MMPI, in which the rules of interpretation are made explicit and are relatively easily communicated.—*A. Greenwald.*

3202. Murstein, B. I., & Collier, H. L. (Interfaith Counseling Cent.) The role of the TAT in the measurement of achievement as a function of expectancy. *J. proj. Tech.*, 1962, 26(1), 96-101.—Results fail to confirm the hypothesis that the group with maximum uncertainty would be more highly motivated and thus produce more achievement fantasy. The role of TAT fantasy in relation to the achievement motive remains unclear.—*A. F. Greenwald.*

3203. Neuringer, C. (U. North Dakota) Manifestations of anxiety on the Rorschach test. *J. proj. Tech.*, 1962, 26(3), 318-326.—Equivocal results reported in studies on Rorschach anxiety are discussed and reviewed. The value of the Rorschach Content Test in assessing anxiety is upheld. Rorschach determinants are found to differ in their relationship to laboratory-induced and real-life anxiety.—*A. Greenwald.*

3204. Palmer, J. O., & Lustgarten, B. J. (U. California Medical Cent., Los Angeles) The predic-

tion of TAT structure as a test of Rorschach's experience-balance. *J. proj. Tech.*, 1962, 26(2), 212-220.—Rorschach intratensives tend to emphasize internal feelings of their heroes on TAT stories, but extratensives do not stress external personality characteristics nor environmental pressures in their stories. TAT stories of the coarctate group bore the highest ratings for "violence." As expected, ambiequals tend to mention both internal and external characteristics of their TAT heroes.—*A. F. Greenwald.*

3205. Pine, Fred. (New York U.) Creativity and primary process: Sample variations. *J. nerv. ment. Dis.*, 1962, 134(6), 506-511.—A group of actors was compared with undergraduates on the manifestation of primary process thinking in the Rorschach test. Hypotheses regarding creativity and primary process were tested for the actors. "The results, in contrast to the earlier ones, showed no clear relationships between the primary process variables and quality of created productions. Sample differences in the handling of primary process, and their implications for relations between primary process and creative quality, were explored.—*N. H. Pronko.*

3206. Sacks, H. (U. California, Los Angeles) The effect of preliminary verbal conditioning on inkblot test responses. *J. proj. Tech.*, 1962, 26(3), 332-336.—2 sets of Wickes' inkblots were administered to a group. Verbal reinforcement of human movement responses failed to influence the subsequent development of M, thus indicating the relative stability of this type of response.—*A. Greenwald.*

3207. Victor, F. (4 East 81st St., NYC) Ist die Graphologie eine Ausdrucks oder eine Projektive Methode? [Is graphology an expressive or projective method?] *Jb. Psychol. Psychother. med. Anthropol.*, 1960, 7(3-4), 351-357.—Discussions for and against graphology as a projective method are presented, in the end suggesting that scientifically founded graphology could be considered a projective method. If the dynamic expression of handwriting analysis is considered and the individual is as familiar with psychology as one who is using Rorschach, TAT, or other projective methods, the application of the handwriting analysis as a projective technique is possible. Actually the expressive methods and projective methods are not in contradiction but have much in common. Some graphologists would themselves, particularly in the United States, put a special emphasis on expressive rather than projective side of this method of personality interpretation.—*V. J. Bieliauskas.*

3208. Weisskopf-Joelson, E., & Foster, H. C. (Purdue U.) An experimental study of the effect of stimulus variation upon projection. *J. proj. Tech.*, 1962, 26(3), 366-370.—CAT pictures were modified to include both a chromatic and human figure series. The authors report no significant differences in productivity when animal-human or chromatic-achromatic stimuli are presented.—*A. Greenwald.*

PERSONALITY DIAGNOSIS

3209. Alvarez, R. R. (Western Reserve U.) Comparison of depressive and brain-injured subjects on the trail making test. *Percept. mot. Skills*, 1962, 14(1), 91-96.—The Trail Making Test was administered to 32 reactive-depressives and 32 brain damaged patients matched in pairs for age, sex, and education. The performance-times of the reactive-

depressive group were significantly better than those of the brain damaged. The incidence of misclassified depressive patients is comparable to that reported by Reitan for unselected patients without brain damage. The results are interpreted as indicating that deficits in performance-time scores on the Trail Making Tests are more likely to be a function of the effects of cerebral lesions on perceptual and motor integrations than of lowered motivation due to depressive mood in the absence of organic involvement.—*W. H. Guertin.*

3210. Anker, James M. (VA Hosp., Perry Point, Md.) **Chronicity of neuropsychiatric hospitalization: A predictive scale.** *J. consult. Psychol.*, 1961, 25(5), 425-432.—Construction of a new MMPI scale for neuropsychiatric hospital chronicity by item analysis and cross validation. The scale discriminates well up to 18 months, with a minimum of false positives.—*E. R. Oetting.*

3211. Beck, Aaron T. (U. Pennsylvania) **Reliability of psychiatric diagnoses: I. A critique of systematic studies.** *Amer. J. Psychiat.*, 1962, 119(3), 210-216.—"Pertinent systematic studies of the reliability of psychiatric diagnosis were critically examined. It was pointed out that each of these studies presented certain methodological problems which made their findings inconclusive. An experimental design was presented to meet these problems and thus yield a more informative index of reliability. By systematically varying the important variables, such as the level of experience of the psychiatrists, the time interval between interviews, the use of ancillary information, and the degree of refinement of the nosological categories, it will be possible to determine their effects on reliability."—*N. H. Pronko.*

3212. Chatham, Lois Rommel. (U. Houston) **A quantitative system for assessing the intensity of psychiatric complaints.** *Dissert. Abstr.*, 1961, 22(3), 911.—*Abstract.*

3213. Fisher, Barbara E. (Provincial Hosp., Lancaster, New Brunswick, Canada) **Block-design rotation by brain-damaged, schizophrenic and normal subjects.** *Bull. Maritime Psychol. Ass.*, 1962, 11(1), 20-27.—Groups were compared on a modified form of Shapiros Block-Design Rotation Test. Evidence for lawful relationships between amount of rotation and organization of stimulus properties was found. Patient groups did not differ; they did differ from normals. Negative relationship between intelligence and amount of rotation noted in normals only.—*C. W. Page.*

3214. Fisher, G. M. (Fairview State Hosp., Costa Mesa, Calif.) **Discrepancy in Verbal and Performance IQ in adolescent sociopaths.** *J. clin. Psychol.*, 1961, 17(1), 60.—Wechsler's hypothesis that sociopaths usually have higher Performance than Verbal IQs was examined on 177 white, 55 Mexican-American, and 42 Negro adolescent sociopaths. The mean Performance IQ was significantly greater than the mean Verbal IQ in the white and Mexican-American groups, but not in the Negro group.—*V. J. Bieliauskas.*

3215. Foulds, G. A. (Runwell Hosp., Wickford, Essex, England) **A quantification of diagnostic differentiate.** *J. ment. Sci.*, 1962, 108(Whole No. 455), 389-405.—The diagnostic function of the interview should be distinguished from the etiological—perhaps such difference functions cannot be served by a single psychiatric interview. Symptoms can be

frequent in different nosologies without being differentiating. A symptom or groups of symptoms are differentiae if they distinguish, at least at the 5% level, between the class in question and any other class. Specific differentiae are symptoms which distinguish, at least at the 5% level, between the class in question and 70% or more of all classes with which it is being compared. Anxiety should be compared with all other symptom clusters singly as well as collectively. For 80 psychotic and 140 neurotic women agreement with clinical diagnosis obtained with the Runwell Symptom-Subjective-Sign Inventory was 67%. A clear distinction between symptoms and signs on one hand and personality traits on the other will aid progress in constructing instruments which can help diagnoses.—*W. L. Wilkins.*

3216. Frost, B. P. (Child Training Guidance Cent., London, England) **An application of the method of extreme deviations to the Wechsler Intelligence Scale for Children.** *J. clin. Psychol.*, 1960, 16(4), 420.—107 WISC records from a child guidance clinic population were evaluated by the method of extreme deviation in order to determine the diagnostic-psychiatric meaning of high-low profiles. Results failed to support any psychiatric category. However, some statistically significant findings were observed in profile trends of certain diagnostic groups.—*V. J. Bieliauskas.*

3217. Geiser, Robert Lee. (Boston U.) **The psychodiagnostic efficiency of WAIS and Rorschach scores: A discriminant function study.** *Dissert. Abstr.*, 1961, 22(3), 915.—*Abstract.*

3218. Gilbertstadt, Harold, & Farkas, Edwin. (VA Hosp., Minneapolis, Minn.) **Another look at MMPI profile types in multiple sclerosis.** *J. consult. Psychol.*, 1961, 25(5), 440-444.—The MMPI indicates severe depression more frequently in MS patients, particularly those with lower IQs (Wechsler-Bellevue) than in controls. Younger, more intelligent patients tend to obtain nondepressed profiles. "... the importance of a longitudinal approach to MS was indicated."—*E. R. Oetting.*

3219. Goldfried, M. R. (U. Rochester) **Rorschach developmental level and the MMPI as measures of severity of psychological disturbance.** *J. proj. Tech.*, 1962, 26(2), 187-192.—No significant relationship was found between Rorschach and MMPI estimates of severity of pathology. A scoring system for Rorschach based on Werner's developmental theory and Meehl-Dahlstrom's rules for classifying MMPI profiles were used. The possibility that different levels of personality functioning are being tapped by these tests is discussed.—*A. F. Greenwald.*

3220. Hunt, W. A., Walker, R. E., & Jones, N. F. (Northwestern U.) **The validity of clinical ratings for estimating severity of schizophrenia.** *J. clin. Psychol.*, 1960, 16(4), 391-393.—"Twelve schizophrenic patients, rank ordered on the basis of severity of their disorder by three experienced clinicians, were given the Vocabulary and Comprehension subtests of the Wechsler intelligence scale. The test responses were then rated independently by other clinicians using a seven-point scale in rating for amount of schizophrenic pathology present, potential intelligence exhibited, communicability, and concreteness of thinking." Statistically significant-high agreement was found in the rating between judges and in terms of

the categories on which the rating took place. These findings that subjective ratings by clinicians particularly in regard to the evaluation of patients' intelligence have some merit.—*V. J. Bieliauskas.*

3221. Karson, S. (Dade County Child Guidance Clinic, Miami, Fla.) **Validating clinical judgments with the 16 P. F. test.** *J. clin. Psychol.*, 1960, 16(4), 394-397.—Psychiatric social work staff members of a child guidance clinic were given the task of rating personality traits of mothers of emotionally disturbed children. The profile sheet of the 16 Personality Factor Questionnaire was used as a rating scale. "The results showed a significant amount of agreement among the entire staff with regard to their stereotypes of the clinic mothers' personality traits." The results indicated that the most valid ratings were made on 8 factors on which the staff as a whole showed the most agreement, and the least valid ratings were made on 8 other factors on which the staff showed the least agreement.—*V. J. Bieliauskas.*

3222. Klopfer, W. G. (U. Portland) **The role of diagnostic evaluation in clinical psychology.** *J. proj. Tech.*, 1962, 26(3), 295-298.—The author critically evaluates 6 major agreements for diminishing the diagnostic role of the clinical psychologist. He concludes that diagnostic functions present the greatest challenge and require the most scientific resourcefulness.—*A. Greenwald.*

3223. Korner, A. F. (Mt. Zion Hosp., San Francisco) **Developmental-diagnostic dimensions as seen through psychological tests.** *J. proj. Tech.*, 1962, 26(2), 201-211.—Psychological test results are discussed as they contribute to the detection of developmental arrest in childhood. Evenness of development, flexibility, and capacity for further development may be assessed. A case is presented to illustrate the diagnostic clues available from cognitive test data.—*A. F. Greenwald.*

3224. Leventhal, T., Slepian, H. J., Gluck, M. R., & Rosenblatt, B. P. (Worcester Youth Guidance Cent.) **The utilization of the psychologist-patient relationship in diagnostic testing.** *J. proj. Tech.*, 1962, 26(1), 66-70.—A case is made for patient-oriented test sessions which contribute increased data as to the patient's perception of problem areas and provide therapeutic as well as diagnostic benefits. Case illustrations are provided to demonstrate the use of test behavior and productions in establishing a relationship with the patient.—*A. F. Greenwald.*

3225. Lipsher, David Harold. (Stanford U.) **Consistency of clinicians' judgments based on MMPI, Rorschach and TAT protocols.** *Dissert. Abstr.*, 1962, 22(12), 4409-4410.—*Abstract.*

3226. Mahesh, M. D. (Belmont Hosp., Sutton, England) **Intelligence and verbal knowledge in relation to Epstein's Overinclusion Test.** *J. clin. Psychol.*, 1960, 16(4), 417-419.—Epstein's Overinclusion Test, Raven's Progressive Matrices, and the Mill Hill Vocabulary (Synonyms) Test were given to 217 male psychiatric cases at Belmont Hospital. Special attention was given to 120 cases with psychiatric diagnosis primarily of neurosis or personality disorders. The relationship between intelligence and overinclusion appeared to be negative and significant. "The study points out the need for caution in the use of Epstein's Test for differential diagnosis."—*V. J. Bieliauskas.*

3227. Norman, R. P., & Wilensky, H. (Franklin Delano Roosevelt Hosp., Montrose, N. Y.) **Item difficulty of the WAIS Information subtest for a chronic schizophrenic sample.** *J. clin. Psychol.*, 1961, 17(1), 56-57.—"The Information scores of 100 schizophrenics who had taken the WAIS were compared on an item basis with the scores obtained by 1700 normal subjects in Wechsler's standardization group. Eight of the 29 items differentiated the two groups significantly at the .01 level. These differences suggested that schizophrenic deficit may be greater in items that call for reasoning as contrasted with those requiring pure recall."—*V. J. Bieliauskas.*

3228. Payne, R. W., & Friedlander, D. (Queen's U., Kingston, Ontario) **A short battery of simple tests for measuring overinclusive thinking.** *J. ment. Sci.*, 1962, 108(Whole No. 454), 362-367.—A combined score from correct sortings in an object classification test, total number of words used in explaining the Benjamin proverbs, and the average number of objects per group selected during the handing-over-part of the Goldstein Object Sorting Test, differentiates acute schizophrenics from normals, neurotics, and endogenous depressives.—*W. L. Wilkins.*

3229. Petersen, Robert Carl. (U. Minnesota) **The effect of item content and distribution instructions upon reliability in the rating of psychiatric patients.** *Dissert. Abstr.*, 1961, 22(6), 2071-2072.—*Abstract.*

3230. Porteus, S. D. (U. Hawaii) **Maze test reports.** *Percept. mot. Skills*, 1962, 14(1), 58.—The author reviews several reported research investigations employing the Porteus Maze Test. Perseveration upon retesting was greater for cases on chlorpromazine. Cultural variables and Conformity-Flexibility scores are reviewed. 2 studies show the sensitivity of the mazes to detecting psychosurgery and aging effects.—*W. H. Guertin.*

3231. Prado, W. M., Peyman, D. A., & Lacey, O. L. (U. Alabama) **A validation study of measures of flattened affect on the Bender-Gestalt Test.** *J. clin. Psychol.*, 1960, 16(4), 435-438.—Some authors suggest that "flattened affect" is indicated on Bender Gestalt drawings by flattened curves and/or a decrease in angulation. 120 Ss were included in this investigation which aimed to determine the objective value of these specific signs in Bender Gestalt drawings; 40 were flattened affect psychotics, 40 were non-flattened affect psychotics, and 40 were firemen. The mean angulation and curvature scores were obtained for the 3 groups. "The Bender Gestalt test does not appear to distinguish adequately between 'flattened affect' and 'non-flattened affect' groups."—*V. J. Bieliauskas.*

3232. Quast, Wentworth. (U. Minnesota Medical Cent.) **The Bender-Gestalt: A clinical study of children's records.** *J. consult. Psychol.*, 1961, 25(5), 405-408.—100 patients aged 10-12 were divided into suspected brain damaged and suspected emotionally disturbed groups. Of 17 preselected attributes, 12 discriminated significantly. Inter-correlation of attributes is low.—*E. R. Oetting.*

3233. Sarbin, Theodore R. **A new model of the behavior disorders.** *Gauein*, 1962, 10(6), 324-341.—Contrary to the traditional model based primarily on work of medical practitioners, this model was introduced and developed by social psychologists. It

consists of 3 components: alarm, adaptive phase, and exhaustion or depletion. The 2nd component is subdivided into noneffective and tranquilizing techniques, change in beliefs or values, redeployment or redirection of attention, and instrumental acts. Actually an extension of the "stress-model," it originates from the theory that the behavior S manifests in an effort to reduce tensions becomes fixed by the behavior of other persons. It is contended that people who have been in mental hospitals for many years are the products of the antecedent conditions which led to their hospitalization and of the social organization of this hospital.—*J. A. Lucker.*

3234. Sarbin, Theodore R. The present status of the clinical-statistical prediction problem. *Garwein*, 1962, 10(6), 315-323.—A series of tests showed the truth-value of statistical prediction to be superior to the clinical method, essentially because the clinician is free to apply untested biases of doubtful or unknown validity, whereas the statistician can use only major premises of known credibility. Utilizing intuition, idiographic-nomothetic distinction, and syllogism are suggested to improve the clinician's validity of prediction.—*J. A. Lucker.*

3235. Sastry, N. N. S., & Rao, S. K. Ramachandra. A study of projected aggression through TAT responses. *Trans. All-India Inst. Ment. Hlth.*, 1960, 1, 17-28.—A group of 30 inpatients were administered 5 Indian TAT cards (No. 2, 3, 7, 15, 19). The scale devised by Scodel and Lipetz (a 5-point scale) was used for scoring. Chi square tests revealed that schizophrenics with histories of suicidal or assaultive behavior produced TAT stories in which the central characters were overtly more hostile.—*U. Pareek.*

3236. Semeonoff, B. Self-description as an instrument in personality assessment. *Brit. J. med. Psychol.*, 1962, 35(2), 165-175.—"That self-description may be analysed in terms of identifiable response patterns or variables seems to have been satisfactorily established. While the power of these to discriminate between accepted and rejected candidates for counseling is not very pronounced, it seems possible to think of them as 'favorable' and 'unfavorable' in relation to personality adjustment. Indications from self-descriptions are in general agreement with information derived from projective techniques. The two approaches are complementary to one another, and are further alike in that both are exploratory instruments rather than bases for statistical prediction."—*C. L. Winder.*

3237. Siegal, Richard S., & Ehrenreich, Gerald A. Inferring repression from psychological tests. *Bull. Menninger Clin.*, 1962, 26(2), 82-91.—The psychologist needs to increase his sensitivity to the presence of repression and to the differences in the way it fits into ego organization and reveals itself in psychological tests. The presence of repression may be identified through sensing that something is missing in the response and that defensive ego activity is following and supporting the act of repression. Every test response can be understood potentially as having both defensive and impulse meanings. Examples are given from the Rorschach and Word Association Tests.—*W. A. Varvel.*

3238. Sperber, Zanwil, & Spanner, Marvin. (Mount Sinai Hosp., Los Angeles) Social desir-

ability, psychopathology, and item endorsement. *J. gen. Psychol.*, 1962, 67, 105-112.—The prediction was made that the self-descriptive responses to a personality inventory by Ss suffering from some degree of psychopathology would be significantly less related to the SD values of the items than was the case for a group of normal Ss. The prediction was verified. Ss' responses to the items in high and low SD quartiles also supported the conclusion that the use of self-descriptive personality assessment procedures is not necessarily invalidated because of the operation of the social desirability variable.—*Author abstract.*

3239. Stern, Daniel Jacob. (U. Wisconsin) A ratio scale of abnormal behavior. *Dissert. Abstr.*, 1961, 22(6), 2084.—*Abstract.*

3240. Strumpfer, D. J. W., & Nichols, R. C. (Purdue U.) A study of some communicable measures for the evaluation of human figure drawings. *J. proj. Tech.*, 1962, 26(3), 342-353.—16 DAP measures failed to differentiate between normal, neurotic, and schizophrenic samples. Failure to demonstrate a relationship between DAP and CPI measures tends to cast further doubt on the DAP's value in assessing personality characteristics.—*A. Greenwald.*

3241. Suinn, R. M. (Whitman Coll.) The Shipley-Hartford Retreat Scale as a screening test of intelligence. *J. clin. Psychol.*, 1960, 16(4), 419.—The IQs obtained using the WAIS and the Shipley-Hartford Scale for 29 Ss from a VA Hospital in Palo Alto, California were compared via Pearson's Product Moment correlation. Highly significant correlations were found. "It was concluded that the Shipley-Hartford Scale could be useful as a screening measure of intelligence with neuropsychiatric patients."—*V. J. Bieleauskas.*

3242. Vinoda, K. S. The investigation of thought disorders by psychometric tests. *Trans. All-India Inst. Ment. Hlth.*, 1960, 1, 32-38.—Thought disorders can be classified into: (a) disorders of the formal aspect pertaining to the production of thought and (b) disorders of content. Broad results are given for some tests found useful in revealing thought disorders.—*U. Pareek.*

3243. Walton, D., & Mather, M. D. (Winwick Hosp., Warrington, England) Differential response to questionnaire items of neuroticism by "defensive" and "non-defensive" subjects. *J. ment. Sci.*, 1962, 108(Whole No. 455), 501-504.—For 80 hospitalized anxiety states, reactive depressions, and obsessionals, a normal or lower than normal score on the N scale of the Maudsley Personality Inventory can be shown to be "defensive." A discrepancy score between the shortened forms of the MPI and the Maudsley Medical Questionnaire can successfully discriminate "suspect" neurotics and normals.—*W. L. Wilkins.*

3244. Zigler, Edward, & Phillips, Leslie. (Yale U.) Case history data and psychiatric diagnosis. *J. consult. Psychol.*, 1961, 25(5), 458.—Diagnostic groups are compared with the population on age, intelligence, education, occupation, employment history, and marital status. Hospitalized individuals are not representative of the population and diagnostic groups also differ.—*E. R. Oetting.*

PERSONALITY ADJUSTMENT

3245. Block, Jack. (U. California, Berkeley) **Ego identity, role variability, and adjustment.** *J. consult. Psychol.*, 1961, 25(5), 392-397.—Role variability is assessed by ranking adjectives characterizing the S's own behavior in relation to 8 different individuals. Role variability related significantly to a measure of "susceptibility to anxiety" from a CPI scale. Role rigidity did not. An autonomic perception questionnaire (APQ) measures "autonomic feedback" by self-description of somatic symptoms characteristic of anxiety. APQ relates positively to the manifest anxiety scale and negatively to Barons' ego strength scale. High scores were also related to anxiety and depression from the Nowlis adjective check list. Autonomic feed-back is related in both anxiety and happiness states. Sex differences are discussed.—E. R. Oetting.

3246. Buhler, Charlotte. (Los Angeles, Calif.) **Goal-structure of human life: Model and project.** *Psychol. Rep.*, 1962, 10(2), 445-446.—"An attempt to formulate rationally the goal structure of life and to devise means of testing the hypotheses is described."—B. J. House.

3247. Chambers, J. L., & Broussard, L. J. (Charles Mix Memorial Fund, Americus, Ga.) **The role of need-attitudes in adjustment.** *J. clin. Psychol.*, 1960, 16(4), 383-387.—As a follow up to a previously reported study, this investigation attempted to evaluate attitudes toward needs of the Murray need system of normal, paranoid schizophrenics, alcoholics, and chronic undifferentiated schizophrenic males. The Picture Identification Test adapted by Chambers was employed and the results evaluated via cluster analyses. Interpretation of findings suggested that "in order to conform to normal patterns, alcoholics required most change in attitudes associated with Succorance, Harmavoidance, and Defence needs; paranoid schizophrenics required most change in attitude patterns related to Aggression, Blamavoidance, and Achievement needs; chronic undifferentiated schizophrenics required most change in attitude patterns related to Succorance, Harmavoidance Exhibition, and Order needs."—V. J. Bieleuskas.

3248. Chambers, Jay L. (Charles L. Mix Memorial Fund, Americus, Ga.) **Trait judgment of photographs and adjustment of college students.** *J. consult. Psychol.*, 1961, 25(5), 433-435.—Well-adjusted students (selected by faculty) matched pictures of the Picture Identification Test to Murray need descriptions more closely to average students than did maladjusted students. Relation with Princeton Scholastic Aptitude Test is .28.—E. R. Oetting.

3249. Eysenck, H. J. (U. London, England) **Conditioning and personality.** *Brit. J. Psychol.*, 1962, 53(3), 299-305.—The application of learning theory to the study of personality presents many problems, some of which are here discussed in reply to a critique by Champion of the author's particular contribution to this field. It is suggested that such discussions are relatively fruitless unless they take into account the differences between "strong" and "weak" theories, and unless they bear in mind the many different ways along which predictions may be mediated from postulates.—*Journal abstract.*

3250. Eysenck, H. J. (Inst. Psychiatry, London, England) **Reminiscence, drive and personality:**

Revision and extension of a theory. *Brit. J. soc. clin. Psychol.*, 1962, 1(2), 127-140.—Some 20 studies tend to support the hypothesis that reminiscence effects are stronger in extraverts than in introverts or related hypotheses postulating greater inhibition effects in certain criterion groups. There is little evidence to support the contention that neuroticism or emotionality, presumed to have drive properties, should also correlate positively with reminiscence. The original theory hypothesized that extraverts (a) generate reactive inhibition more quickly, (b) dissipate it more slowly, and (c) develop greater amounts of reactive inhibition. In the light of the work relating drive to reminiscence the 3rd hypothesis becomes unsatisfactory and the theory is therefore reformulated in terms of only the 1st 2 to account for the observed differences between extraverts and introverts in reminiscence. (69 ref.)—C. M. Franks.

3251. Feather, N. T. (U. New England, Australia) **The study of persistence.** *Psychol. Bull.*, 1962, 59(2), 94-115.—An analysis of basic approaches to the study of persistence indicates that trait oriented studies have difficulty in accounting for variation among situations. Conceptualizations of persistence as resistance to extinction have difficulty in accounting for individual differences. A more fruitful approach is to consider persistence as a motivational phenomenon, "where the theory of motivation considers interaction of both personality characteristics and situationally determined influences."—W. J. Meyer.

3252. Feibleman, J. K. (Tulane U.) **An illustration of retention schemata.** *Psychol. Rec.*, 1962, 12, 1-8.—It is proposed that each person has a universe of beliefs composed of private and public retention schemata. The 1st refers to an unconscious and highly personal set of dispositional states. The 2nd encompasses a system of social beliefs used as rules of procedure. Both are acquired as a result of continuing inquiry. Pathology results when an individual is either too labile (insufficient retention) or too stable (nonadaptive or rigid) in his beliefs. The position is developed by illustration in a series of interviews with a single S.—R. J. Seidel.

3253. Fitzgerald, Maureen P. (Fordham U.) **Relationship between expressed self-esteem similarity, and self-disclosure.** *Dissert. Abstr.*, 1962, 22(12), 4402.—*Abstract.*

3254. Forehand, Garlie A. (U. Chicago) **Relationships among response sets and cognitive behaviors.** *Educ. psychol. Measmt.*, 1962, 22(2), 287-302.—The intercorrelations among 12 measures of response set and 6 measures based on concepts of cognitive control were examined. The response set variables were 4 acquiescence scores, 2 measures of response perseveration, extreme positive response tendency, extreme negative response tendency, and general extreme response tendency. 3 of the cognitive control variables involved the concept of equivalence and 3 were based on the concept of field articulation. These are explained and the methods of measuring them are described. 20 articles describing previous work on response set are reviewed, and additional issues are presented.—W. Coleman.

3255. Goldstein, Lawrence. (New York U.) **Empathy and its relationship to personality factors and personality organization.** *Dissert. Abstr.*, 1962, 22(12), 4402-4403.—*Abstract.*

3256. Kissel, Stanley. (U. Buffalo) **Social stimuli and reduction of stress.** *Dissert. Abstr.*, 1962, 22(12), 4406-4407.—*Abstract.*

3257. Klein, Malcolm Ward. (Boston U.) **Ambiguity and response conflict: A conceptual and experimental analysis.** *Dissert. Abstr.*, 1961, 22(4), 1284.—*Abstract.*

3258. Kregarman, John Jerome. (U. Texas) **Arbitrariness of frustration and aggression.** *Dissert. Abstr.*, 1961, 22(6), 2070.—*Abstract.*

3259. L'Abate, L. (Washington U. Medical School) **The effect of paternal failure to participate during the referral of child psychiatric patients.** *J. clin. Psychol.*, 1960, 16(4), 407.—21 couples (parents) and 27 mothers (not accompanied by their husbands) seeking help from a mental hygiene clinic regarding behavioral problems of their children were given the MMPI. Their children were administered Roger's Test of Personality Adjustment as well as other clinical tests. Control groups consisted of 49 couples of comparable socioeconomic background taken from a recent study by Liverant and 49 children without noticeable behavior problems. "According to differences in MMPI profiles, mothers who brought their child to a mental hospital without their husband appeared to be more disturbed than control mothers who were accompanied by their husbands." Boys who came with only their mothers appeared to be more maladjusted than their controls or the boys who were accompanied by their parents.—V. J. Bieliauskas.

3260. Lair, C. V., & Trapp, E. P. (VA Hosp., Fayetteville, Ark.) **Performance decrement on the H-T-P test as a function of adjustment level.** *J. clin. Psychol.*, 1960, 16(4), 431.—"The hypothesis that more esthetic deterioration from the House to the Person drawings on the H-T-P Test would occur in a maladjusted group compared with a non-maladjusted group was tested. The drawings of 25 paired subjects were rated on artistic quality with no differences found between groups. The implication of this result was briefly discussed."—V. J. Bieliauskas.

3261. Lynn, R., & Butler, J. (U. Exeter) **Introversiion and the arousal jag.** *Brit. J. soc. clin. Psychol.*, 1962, 1(2), 150-151.—Berlyne's theory of the "arousal jag" (see 35: 78) was tested in relation to Eysenck's theory of individual differences in personality as applied to gambling and esthetic preferences among students. The results are consistent with Eysenck's earlier findings but fail to support the theory of Berlyne. A possible way of salvaging the theory is suggested.—C. M. Franks.

3262. McGuire, F. L. (USN Medical Neuropsychiatric Research Unit, San Diego, Calif.) **The Kuder Preference Record—Personal as a measure of personal adjustment.** *J. clin. Psychol.*, 1961, 17(1), 41-42.—An attempt was made to discover the relationship between the interest scales and the personality adjustment. The Kuder Preference Record—Personal, Form A, was given to 2 groups: 50 individuals who were discharged from the Marine Corps for psychiatric reasons, and 38 Marines who had each spent at least 5 years in the Marine Corps. Also the Kuder scores were correlated with the scores on the Bell Adjustment Inventory obtained from 100 Marines picked at random. The results failed to show any significant relationship between the Kuder Preference

Record—Personal measures and the Bell Adjustment Inventory, and they failed to show a difference between the psychiatric and normal military groups.—V. J. Bieliauskas.

3263. Moses, M., & Duvall, R. (U. Texas) **Depreciation and the self concept.** *J. clin. Psychol.*, 1960, 16(4), 387-388.—The Worchel Self-Activity Inventory was administered to 250 students in introductory psychology classes. It was hypothesized that, "persons with high self-ideal discrepancy would tend to depreciate their performance on a task, whereas a person with low self-ideal discrepancy would tend to estimate their performance more accurately." Out of this group, 2 sub-groups were selected of 24 Ss each, one group composed of high self-ideal discrepancy scores and the other of low scores. Both groups were given a 3 choice probability learning task. "It was found that Ss with a high self-ideal discrepancy tended to depreciate their performance, while Ss with low self-ideal discrepancy tended to estimate their performance more accurately."—V. J. Bieliauskas.

3264. Parrish, John Mark. (Indiana U.) **Effects of external control and ambiguous information on generalized expectancy changes for self and others.** *Dissert. Abstr.*, 1961, 22(6), 2070-2071.—*Abstract.*

3265. Radin, Jerome Howard. (New York U.) **Authoritarianism in relation to perceptual performance: The relationship between degrees of acceptance of authoritarianism and space orientation.** *Dissert. Abstr.*, 1962, 22(12), 4427-4428.—*Abstract.*

3266. Rasmussen, John Edward. (American U.) **An experimental approach to the concept of ego identity as related to character disorder.** *Dissert. Abstr.*, 1961, 22(5), 1711-1712.—*Abstract.*

3267. Sax, Gilbert, & Carr, Albert. (U. Hawaii) **An investigation of response sets on altered parallel forms.** *Educ. psychol. Measmt.*, 1962, 22(2), 371-376.—Forms A and B of the Henmon-Nelson were given to 335 freshmen at the University of Hawaii. Students took both the spiral omnibus form and a special form in which the items were divided into 3 subtests. The Ss attempted significantly more items and made significantly higher scores on the spiral-omnibus form than on the subtest form. This suggests a response set dependent upon test format and format of item presentation.—W. Coleman.

3268. Sweney, Arthur B. (Lab. Personality Assessment, U. Illinois) **Human motivation measured by objective tests.** *Psychol. Rep.*, 1962, 10(2), 408.—A discussion of some tests of motivation in adults and children developed with the aid of factor analysis.—B. J. House.

3269. Sweney, Arthur B., & Cattell, Raymond B. (U. Illinois) **Relationships between integrated and unintegrated motivation structure examined by objective tests.** *J. soc. Psychol.*, 1962, 57(1), 217-226.—60 attitudes were measured by 7 objective devices with 300 6th grade public school Ss. The 7 tests were divided into 2 categories integrated and unintegrated on a basis of previous 2nd order analysis. Drive structure, as measured by integrated tests, was compared to that measured by unintegrated tests. Whereas the same drives could be identified in both analyses, the content of the factors differed between studies enough to raise some questions. This differ-

ence is hypothesized to arise from differences in the "level" of measurement. Further studies of this difference must be made to confirm this as the source of variance.—*Author abstract.*

3270. Tollefson, Donald Lloyd. (U. Illinois) Differential responses to humor and their relation to personality and motivation measures. *Dissert. Abstr.*, 1961, 22(5), 1712.—*Abstract.*

3271. Weiss, H. R., Kasinoff, B. H., & Bailey, M. A. (VA Regular Off., NYC) An exploration of reported sleep disturbance. *J. nerv. ment. Dis.*, 1962, 134(6), 528-534.—"A questionnaire constructed to investigate sleep habits and personal data was administered to 108 psychiatric outpatients, 101 medically ill outpatients, and 110 military subjects with no known psychiatric or medical disabilities. The results suggest that reported sleep difficulties are almost exclusively emotional in nature; physical disabilities which are expected to cause complaints in this area failed to elicit reports of sleep difficulty. Such variables as age, unemployment, occupational and educational levels were significantly related to the reporting of sleep disturbance."—*N. H. Pronko.*

3272. Wells, Hal M., & Bell, Deanne M. (Elmira Coll.) Binocular perceptual discriminations of authority and peer group figures among over, under and equal achievers. *J. Psychol.*, 1962, 54(1), 113-120.—6 stimulus presentations of photographs of authority, peer, and neutral figures were shown binocularly in a stereoptic device to over, equal, and under academic achievers. The peer stimulus was recognized most frequently by each of the groups. The over achievers gave the largest number of authority substitutes as responses, and the least frequent accurate recognition of the authority and neutral stimulus. There were no significant differences between equal and under achievers in stimulus recognition, although perceptual distorting occurred in each group in terms of substitutions, structural changes, and the addition of descriptive features to the stimuli. A generalization pattern also occurred in which the observers indicated the presence of a past stimulus no longer present.—*Author abstract.*

3273. Whitehorn, John C. (Johns Hopkins U., Baltimore, Md.) A working concept of maturity of personality. *Amer. J. Psychiat.*, 1962, 119(3), 197-202.—Within a biosocial frame of reference, a 4-stage scheme is offered for characterizing immature levels of personality functioning both for theoretical as well as clinical purposes.—*N. H. Pronko.*

3274. Wohl, J., & Williams, M. (VA Mental Hygiene Clinic, Detroit) Expressed values in two clinical populations. *J. clin. Psychol.*, 1961, 17(1), 92-94.—40 Ss, 20 Patients of VA outpatient clinic and 20 successful business managers were asked the question, "What do you want out of life?" Their answers were verbatim recorded, and the results were evaluated with the Sign Test. The prediction that the less-successful, less-gratified VA patients would respond with more emphasis on health concern, basic present security, a desire for happiness, and self-oriented social needs than would the successful business managers was supported by significant findings. The out-patient group also made more negative or denial responses compared with the control group.—*V. J. Bieliauskas.*

Anxiety

3275. Alexander, Sheldon, & Husek, Theodore. (U. California, Los Angeles) The anxiety differential: Initial steps in the development of a measure of situational anxiety. *Educ. psychol. Measmt.*, 1962, 22(2), 325-348.—"Two studies involving the development and cross-validation of a measuring instrument for situational anxiety were described." 6 exploratory anxiety scales were constructed on the basis of comparisons between anxious and nonanxious Ss. "Partial evidence for the validity of the scales was described. The second study attempted to cross-validate and refine the Anxiety Differential measures. . . . The anxiety measures were further refined, leading to the development of several tests to be used with different experimental designs. A number of advantages and possible limitations of the Anxiety Differential were also discussed."—*W. Coleman.*

3276. Bendig, A. W. (U. Pittsburgh) The reliability and factorial validity of the IPAT Anxiety Scale. *J. gen. Psychol.*, 1962, 67, 27-33.—The 40-item Institute for Personality and Ability Testing (IPAT) Anxiety Scale was administered to 200 college Ss (100 men and 100 women) and reliabilities were computed for the 18 possible subscores from the inventory. The items were intercorrelated as were 10 independent subscore measures of the 5 1st-score factors measured by the inventory, and each matrix was factor analyzed. 5 centroid factors were extracted from each matrix and rotated to oblique simple structure using the analytic oblimax criterion. The reliabilities of the subscores, particularly the "covert" measures of the factors, were low to moderate and suggested that the "covert" items did not greatly improve the reliability of the scores obtained by using the "overt" items alone. The oblique factor structure of the items and of the subscores did not parallel the purported factor structure and it was suggested that the small and unequal numbers of relatively unreliable items for each of the 5 factors preclude any internal validation of the factor structure of the scale.—*Author abstract.*

3277. Boone, Jerry Neal. (Vanderbilt U.) A study of the effects of anxiety on auditory perceptual response to threat. *Dissert. Abstr.*, 1961, 22(6), 2062-2063.—*Abstract.*

3278. Hammes, J. A. (U. Georgia) Manifest anxiety and perception of environmental threat. *J. clin. Psychol.*, 1961, 17(1), 25-26.—"A modified version of the Heineman Forced-Choice Anxiety Scale was given to 169 college students, from whom 27 low-scoring and 27 high-scoring subjects were selected. These individuals evaluated 38 environmental objects on a 7-point scale in terms of a 'danger-aggression-threat' dimension." The results showed that the high-anxious individuals tended to evaluate environmental stimuli higher than the low-anxious individuals.—*V. J. Bieliauskas.*

3279. Hammes, J. A. (U. Georgia) Perceptual defense as a function of manifest anxiety and color. *J. clin. Psychol.*, 1961, 17(1), 27-28.—106 students in introductory psychology classes were used as Ss for this study. 18 high- and 18 low-anxiety Ss chosen on a scale of manifest anxiety, were presented ambiguous drawings, tachistoscopically flashed at $\frac{1}{60}$ second through red and blue color filters. The results indicated that all Ss tended to avoid the choosing of

dangerous, aggressive, and threatening objects as they were flashed under the red filter, but "under both color conditions high-anxious Ss selected a relatively greater number of such objects than did low-anxious individuals." Findings were related to color and perceptual defense.—*V. J. Bieliauskas.*

3280. Haywood, Herbert Carlton. (U. Illinois) **Novelty-seeking behavior as a function of manifest anxiety and physiological arousal.** *Dissert. Abstr.*, 1962, 22(5), 1709-1710.—*Abstract.*

3281. Hunt, W. A., & Blumberg, S. (Northwestern U.) **Manifest anxiety and clinical judgment.** *J. clin. Psychol.*, 1961, 17(1), 8-11.—From an introductory psychology class of 200 students to whom the MA scale had been administered, the 20 highest scoring students and 20 lowest scoring were selected and asked to rate 21 schizophrenic vocabulary test responses on a 7 point scale for organization of thinking. This procedure was repeated 6 times and the results indicated clearly that the learning progressed on the 6 trials. The high-anxious group was significantly inferior to the low-anxious group at the beginning, with this difference diminishing with practice.—*V. J. Bieliauskas.*

3282. Krause, Merton S., & Pilisuk, Marc. (Family Service, Cincinnati, O.) **Anxiety in verbal behavior: A validation study.** *J. consult. Psychol.*, 1961, 25(5), 414-419.—Among 7 speech disruption categories, intrusive nonverbal sounds, mainly laughs and sighs, predicted the Ss' reported feelings of anxiety to a description of a stress situation.—*E. R. Oetting.*

3283. Pylyshyn, Z. W., & Agnew, J. N. (U. Saskatchewan) **Absolute judgment of distance as a function of anxiety and exposure time.** *Percept. mot. Skills*, 1962, 14(3), 411-418.—A group of college students with high Manifest Anxiety Scale scores and low MAS Ss were given the task of making absolute judgments of distance, using tachistoscopically presented displays of short and long duration. There was a significant interaction between MAS and exposure on 2 measures of performance and no evidence of response bias difference. The direction of the interaction was opposite to that reported in several previous studies. A possible explanation is offered in terms of the difference in the "kind" of information present in the display.—*W. H. Guertin.*

3284. Scofield, R. W., & Rankin, R. J. (Oklahoma State U.) **Anxiety and visual acuity.** *Percept. mot. Skills*, 1962, 14(1), 18.—The 1st hypothesis that the different illuminating conditions of the room (light vs. dark) would produce a significant difference between visual acuity responses of high anxious and low anxious Ss was not supported. The 2nd hypothesis that anxiety level would be a significant variable in discriminating visual acuity responses was supported. These preliminary findings suggest further research in this area.—*W. H. Guertin.*

3285. Tarnóczy, Thomas H. (Hungarian Acad. Sciences, Budapest) **Vowel format bandwidth and synthetic vowels.** *J. Acoust. Soc. Amer.*, 34(6), 859-860.—This note summarizes a previous paper by the author (see *Arch. Sprach- Stimmphysiol.*, 1942, 6(3-4), 75-87) on the determination of vowel formant bandwidth from decay patterns of vowel cavities. Formant bandwidth, as well as frequency of formant, depends on the open or closed condition of the glottis.

The tuning of the resonator cavities changes, therefore, during each vibration period within the natural intonation.—*A. M. Small, Jr.*

Defenses

3286. Abrams, S. (Camarillo State Hosp.) **A refutation of Eriksen's sensitization: Defense hypotheses.** *J. proj. Tech.*, 1962, 26(3), 259-265.—"This study demonstrated that Eriksen's sensitization—defense dichotomy exists only in some circumstances, and the defensive method used is not constant but varies with the stimulus situation." The ability of the Rorschach to detect unconscious hostility in repressed Ss and response variation of Ss is discussed.—*A. Greenwald.*

3287. Anton, Arthur Morris. (U. Buffalo) **Consistency versus inconsistency of defensive behavior.** *Dissert. Abstr.*, 1961, 22(4), 1246.—*Abstract.*

3288. Breger, Louis, & Liverant, Shepard. (Ohio State U.) **Homosexual prejudice and perceptual defense.** *J. consult. Psychol.*, 1961, 25(5), 459.—Reaction time is significantly higher to homosexual and sexual words than to neutral words for both high and low scorers on a scale for manifest attitudes toward homosexuality. Fraternity men and applied majors score higher on this scale than nonfraternity men and liberal arts majors. Discussion suggests stereotyping rather than perceptual defense.—*E. R. Oetting.*

3289. Brown, William P. (U. London) **Conceptions of perceptual defence.** *Brit. J. Psychol. monogr. Suppl.*, 1962, No. 35, 107 p.—Following a detailed review of the experimental evidence available concerning possible systematic relationships between how emotionally disturbing a stimulus is for any S and his recognition threshold for that stimulus, the explanatory adequacies of some 10 distinctive theoretical positions are assessed. In an experiment involving 96 students word-recognition thresholds were analyzed in terms of sex and the E and N scales of the Maudsley Personality Inventory. Finally, a tentative behavior theory explanation of perceptual defence phenomena is advanced. (243 ref.)—*C. M. Franks.*

3290. Byrne, Donn. (U. Texas) **The repression-sensitization scale: Rationale, reliability, and validity.** *J. Pers.*, 1961, 29(3), 334-349.—"Work in the area of perceptual defense has led to the concept of a behavior dimension comprising psychological defenses ranging from regression to sensitization. Several scales of the MMPI have been found to be related to this dimension, and the present test consists of a combination of six of these scales." Normative data for this R-S scale are presented from a college population. Concurrent and/or construct validity for the R-S scale is supported by a series of correlational studies with Ullmann's Facilitation-Inhibition scale, the California F scale, and other measures. "Thus, the R-S scale appears to be a reliable test, and . . . the evidence suggests that it is a measure of defensive behavior." (50 ref.)—*G. T. Lodge.*

3291. Coleman, P. (Wayne State U.) **Effect of distracting words on a size estimation task.** *J. abnorm. soc. Psychol.*, 1962, 64(1), 79-80.—"The present study controlled the response suppression, frequency of occurrence, and configuration of stimulus variables. Using the method of absolute judgment, Ss had to estimate the length of various lines and to ignore words which were printed adjacent to the lines.

Words considered to have reward, tabu, or neutral connotations were employed and were hypothesized to exercise differential distraction effects resulting in differential errors in size estimation. . . . the contiguous presentation of meaningful, but task irrelevant, stimuli [has] . . . little effect."—G. Frank.

3292. Duffy, Michael Lee. (U. Washington) **An alternative explanation of the subception phenomenon.** *Dissert. Abstr.*, 1961, 22(5), 1721.—*Abstract.*

3293. Goldstein, M. J., Himmelfarb, S., & Feder, Walda. (U. California, Los Angeles) **A further study of the relationship between response bias and perceptual defense.** *J. abnorm. soc. Psychol.*, 1962, 64(1), 56-62.—Ss were exposed to tachistoscopically-presented pairs of words and asked to report whether a particular word was on the left or right of a fixation point. A non-statistically-significant trend showed that Ss tended to demonstrate a response bias in terms of reporting anxiety or neutral words on one or the other side whether or not they were in fact on the stated side of the point. A 2nd phase of the experiment presented S with blank stimulus fields although S was expecting words. A response bias was not demonstrated. ". . . it is suggested that the use of a forced-choice spatial indicator of perception may undermine the motivational basis for perceptual defense."—G. Frank.

3294. Gordon, Rosemary. (U. London) **Stereotypy of imagery and belief as an ego defence.** *Brit. J. Psychol. monogr. Suppl.*, 1962, No. 34. 96 p.—An experimental investigation of the nature of stereotyped mental constructs and some of the conditions which favor their production in neurotic and normal Ss. It is concluded that the tendency to stereotypy is facilitated by the effects of inadequate intelligence, aging, and neuroticism. The hypothesis is advanced that stereotypy appears in response to and as a defense against anxiety. Facilitating social conditions and social effects of stereotypy are discussed along with methods of possibly reducing this tendency. (36 ref.)—C. M. Franks.

3295. Kragh, Ulf. (Lund U.) **Precognitive defensive organization with threatening and non-threatening peripheral stimuli.** *Scand. J. Psychol.*, 1962, 3(2), 65-68.—The question is raised whether "precognitive defensive organization" in the tachistoscopic exposure of pictures with a centrally placed "hero" and a "threatening" peripheral face is due to the diffuse character (ambiguity) of stimulus, or rather to subliminal threat. 2 pictures were shown under essentially identical conditions. In one case, the face was ugly and "threatening," in the other case it was the same face but slightly modified, and "smiling." The results suggest that subliminal threat is important for the activation of defensive reactions, but they do not contradict the assumption that diffusivity of stimulus alone may also be effective.—*Journal abstract.*

3296. Lasky, David Isaac. (Temple U.) **The relationship between spontaneous fantasy, induced fantasy, and behavioral measures of hostility.** *Dissert. Abstr.*, 1962, 22(12), 4408.—*Abstract.*

3297. Lauer, Donald Kenneth. (U. Pennsylvania) **An investigation of defensive reactions to shame.** *Dissert. Abstr.*, 1961, 22(4), 1285.—*Abstract.*

3298. Leveton, A. F. **Reproach: The art of shamesmanship.** *Brit. J. med. Psychol.*, 1962, 35(2), 101-111.—"A reproach is an interaction in which shaming is used to extort behaviour. It takes place between people who have shared expectations and ideals. The shaming is done through the masochistic display of the reproacher who blames his self-inflicted injury on the reproached person hoping to manipulate his behaviour. It may be used to educate children, as when a mother reproaches her child for not eating, or pathologically in the families of schizophrenics. Although it creates discomfort, both partners are reluctant to give up the interaction because it promises power and creates a relationship. Reproach may also go on internally as in the self-reproach of depression and existential reproach. It is a covert transaction that is a common therapeutic problem and must be interpreted in treatment."—C. L. Winder.

3299. Lomont, James Francis. (U. Illinois) **The forgetting of performances inconsistent with the self concept.** *Dissert. Abstr.*, 1961, 22(5), 1717-1718.—*Abstract.*

3300. Magaziner, Daniel Edward. (U. Pennsylvania) **The effects of insecurity upon aggressive responsiveness.** *Dissert. Abstr.*, 1961, 22(4), 1255.—*Abstract.*

3301. Rothaus, P. (VA Hosp., Houston) **Problems in the measurement of aggression-anxiety.** *J. proj. Tech.*, 1962, 26(3), 327-331.—The order in which protocols are scored can affect judges' ratings of aggression. Advantages in scoring amount of aggression as opposed to recording simple presence or absence of aggression, and the use of criteria with examples to assist judges are discussed.—A Greenwald.

3302. Teitelbaum, Stanley Harold. (Boston U.) **Stimulus generalization in relation to stress and defense.** *Dissert. Abstr.*, 1961, 22(3), 920.—*Abstract.*

3303. Willis, Frank Neal. (U. Missouri) **The movement interpretation of threat and level of self acceptance.** *Dissert. Abstr.*, 1961, 22(5), 1719.—*Abstract.*

PSYCHOANALYTIC THEORY

3304. Aronoff, Joel. (Brandeis U.) **Freud's conception of the origin of curiosity.** *J. Psychol.*, 1962, 54(1), 39-45.—An attempt has been made to examine Freud's writings and to present his ideas on the nature of human curiosity. This is an extremely important task now when his work is being used in support of many different theories of curiosity. 2 contrasting theories may be found. The 1st maintains that curiosity is one of the somatically based partial instincts and emerges during the anal-sadistic stage of development. This is a conception of an innate capacity of the organism, basically concerned with sexual matters, which will continue into adulthood as a derivative instinct. The 2nd theory states that curiosity is not inherent in the organism at all. It is rather a coping mechanism developed by the child to handle the problems raised by the birth of a younger sibling. The conceptual bases for the contrasting theories are presented, as well as a number of Freud's statements, in order to

reveal clearly the nature of his ideas.—*Author abstract.*

3305. Burchard, Edward M. L. (Queens Coll., Flushing) **Psychoanalysis, cultural history and art.** *Psychoanal. psychoanal. Rev.*, 1958-59, 45(4), 99-104.—The growth of psychoanalysis is rooted in the major adaptational problems of the 19th century, i.e., deracination, secularization, restraint of violence and sexuality, and the popularity of healing cults. Psychoanalysis also reflects the preoccupations of 19th-century literature—the novel of education and development, analytic self-observation, and romantic libertinism. Parallels may also be drawn between current psychoanalytic practice and the contemporary avant-garde literature of noninvolvement, abstract painting, and nonorganic sculpture.—*Author abstract.*

3306. Caruso, Igor A. **Soziale Aspekte der Psychoanalyse.** [Social aspects of psychoanalysis.] Stuttgart, Germany: Klett, 1962. 89 p. DM 12.80.—4 lectures on the human motivations resulting from the dialectic relationships of social conditions and psychoanalytically conceived needs are collected in this small volume. The discussion is illustrated by means of case notes, social statistics, and recent European historical events, particularly relating to the Jewry. The theoretical position represents a very liberal interpretation of orthodox psychoanalysis.—*J. C. Brengelmann.*

3307. DeGrinberg, Rebeca V. **Sobre la curiosidad.** [On curiosity.] *Rev. Psicoanal.*, 1961, 18(4), 321-336.—"In this paper a study is made of curiosity as an instinctive drive and of the characteristics of the bond that tends to come about between the curious subject and the object of his curiosity."—*C. T. Morgan.*

3308. Gilbert, A. R. (Norton, Mass.) **The concept of life-style: Its background and its psychological significance.** *Jb. Psychol. Psychother. med. Anthropol.*, 1960, 7(1-2), 97-107.—It is hypothesized that the crucial concept in Adler's personality theory was the concept of the life-style and that in order to understand the meaning of this Adlerian concept one must understand the meaning of the concept of life-style to European psychologists. Life-style could be considered as any other style in our music, literature, painting. "If once the personal style-of-life is crystallized, it becomes the unifying, directional impulsion of personality, underlying all its concrete manifestations. Understanding personality means then its style of life." The Adlerian concept of life-style is a complex of cultural concepts which is to be understood properly only in studying the factors which have influenced the development of the personal style-of-life of Adler. There are 2 elements which are of special interest to psychologists: the perception of life-style and the description of life-style. The author suggests that the improvement of life-style should also be of special interest to psychologists.—*V. J. Bieliauskas.*

3309. Grange, Kathleen M. (U. California Medical Cent., Los Angeles) **Samuel Johnson's account of certain psychoanalytic concepts.** *J. nerv. ment. Dis.*, 1962, 135(2), 93-98.—The thesis is developed that Samuel Johnson's writings in the mid-eighteenth century anticipated the works of the 19th century German philosophers which some scholars claim to be the direct intellectual antecedents of Sigmund Freud.

Concepts such as ego, superego, unconscious, frustration, repression are illustrated in his works.—*N. H. Pronko.*

3310. Heigl, Franz. (Beethovenstr. 25, Göttingen, Germany) **Die humanistische Psychoanalyse Erich Fromms.** [The humanistic psychoanalysis of Erich Fromm.] *Z. psycho-som. Med.*, 1961, 7(4), 235-249.—Fromm's humanistic psychoanalysis is anthropocentric not in the sense of man's being the center of the universe, but in a sense that all manifestations of life are rooted in the peculiarity of human existence. Man is the measure of all things. The highest value is man's well-being, but not in a hedonistic meaning of the word. Freudian psychoanalysis cannot be considered a humanistic psychoanalysis because it believes that libido with its derivatives and deviations represents the propelling force in man. Humanistic psychoanalysis teaches that man's strongest drives and passions originate in man's necessity to solve the problems, discrepancies, and dichotomies specific in human existence.—*J. Neufeld.*

3311. Klein, Melanie. **Das Seelenleben des Kleinkindes und andere Beiträge zur Psychoanalyse.** [The mental life of the infant and other contributions to psychoanalysis.] Stuttgart, Germany: Ernst Klett, 1962. 203 p. DM 19.00.—The book contains 8 of the author's papers, most of which were originally published in English. Topics covered are: psychoanalytic play technique, the significance of symbol formation for ego development, the psychogenesis of manic-depressive states, mourning and its relation to manic-depressive states, remarks on some schizoid mechanisms, the theory of anxiety and the sense of guilt, the mental life of the infant, and envy and gratitude.—*H. H. Strupp.*

3312. Lidz, Theodore. (Yale U. School Medicine, New Haven, Conn.) **The relevance of family studies to psychoanalytic theory.** *J. nerv. ment. Dis.*, 1962, 135(2), 105-112.—Data from recent studies of the family show that a number of psychoanalytic concepts "appear to require re-working."—*N. H. Pronko.*

3313. Luquet, Pierre. **Les identifications précoces dans la structuration et la restructuration du moi.** [Early identification in ego structuration and restructuration.] *Rev. Franc. Psychoanal.*, 1962, 26(1), 117-315.—A historical review precedes the presentation: nature, function, and results of early identification; metapsychological perspectives; insertion of early identification in the first step of ego development; and identification in cure.—*G. Rubin-Rabson.*

3314. Madison, Peter. **Freud's concept of repression and defense: Its theoretical and observational language.** Minneapolis, Minn.: Univer. Minnesota Press, 1961. 205 p. \$4.75.—Repression and defense refer to the hypothesized interplay of force and counterforce in psychic life. Part I presents an account of Freud's theory of repression and defense so that in Part II this theory can be formulated in clear and consistent terms at the abstract level and this theoretical language can then be related to an observational language referring to events directly perceived. Crucial hypotheses to be tested to validate the theory of repression and defense are that primal repressions exist in childhood, that adult repressions exist, and that adult repression and childhood repression are causally related.—*D. Prager.*

3315. Pongratz, L. (Hauptstr. 242, Heidelberg, Germany) *Frühkindliche Prägung und Charakterentwicklung*. [The formation during early childhood and the development of personality.] *Jb. Psychol. Psychother. med. Anthropol.*, 1960, 7(1-4), 314-324.—The personality theory of Freud and his disciples suggests that the formation of personality is given the basic foundation during the early childhood. Since children in this period are, in most instances, completely subject to the educational methods of their parents, the Freudians have strongly emphasized the responsibility of the parents, especially the mothers, in regard to the personality formation of their children. However, the field examination of various Freudian and psychoanalytic concepts concerning personality development suggests that "the first formation is not the end formation," and therefore, the influence of the early educators, especially the mothers, could not be considered the only and ultimate influence upon the personality development of the child. Other influences, particularly the environmental, are effective.—V. J. Biliuskas.

3316. Salzman, Leon, & Masserman, Jules H. (Eds.) *Modern concepts of psychoanalysis*. New York: Philosophical Library, 1962. 210 p. \$4.75.—Contains 12 papers as follows: Leon Salzman, "Modern Concepts of Psychoanalysis"; John R. Reid, "Psychotherapy and Values"; F. Ashley Montagu, "Man—and Human Nature"; Carney Landis, "Psychoanalysis and Experimental Psychology"; Jurgen Ruesch, "Science, Behavior, and Psychotherapy"; Nolan D. C. Lewis and Frances E. Cheek, "Psychoanalysis and Social Science"; Harold Kelman, "Psychoanalysis and Existentialism"; John A. P. Millett, "The Changing Faces of Psychoanalytic Training"; Edith Weigert, "Sympathy, Empathy and Freedom in Therapy"; Jules H. Masserman, "Transference: Counter and Countered—A Dialogue"; H. Guntrip, "Object-Relations Theory and Ego-Theory"; and Judd Marmor, "A Reevaluation of Certain Aspects of Psychoanalytic Theory and Practices."—C. J. Adkins.

3317. Sternegger, Benedikt. *Das Ich im Menschen*. [A psychological analysis of the ego.] Munich, Germany: Max Hueber, 1962. 42 p.—The ego, as the "key to the human personality" and accessible to introspection only, is analysed on the basis of speculative European systems.—J. C. Brengelmann.

3318. Voth, Harold M. (Menninger Found.) *Ego-autonomy, autokinesis and recovery from psychosis*. *Arch. gen. Psychiat.*, 1962, 6(4), 288-293.—A medium position on the ego-close-ego-distant continuum referring to the ego's distance from the external environment and measured by amount of autokinetic movement is shown to predispose psychotic patients to faster recovery than those on either extreme of the scale. Reduction of movement was demonstrated to correlate with recovery. Clinical observation indicates that diminution of ego-closeness correlates positively with recovery. For optimal functioning the ego requires an optimal relationship between itself, external reality, and the id corresponding to an intermediate position on the continuum.—L. W. Brandt.

3319. Yonker, Nicholas Junior. (Columbia U.) *Ambiguities of love: An inquiry into the psychology of Erich Fromm*. *Dissert. Abstr.*, 1961, 22 (4), 1245.—Abstract.

3320. Zellinger, E. (U. Munich) *Ausdruck, Symbol und Motiv in der Tiefenpsychologie und psychosomatischen Medizin*. [Expression, symbol, and motive in depth psychology and psychosomatic medicine.] *Jb. Psychol. Psychother. med. Anthropol.*, 1960, 7(1-2), 66-81.—The expression and the symbol represent important forms of disclosure of inner psychological experiences and they also provide the possibility for the study and research of these inner psychological processes. This becomes especially important when one realizes that the expression and symbols communicate also to a psychological researcher reasons for certain actions. These reasons, or in an "American sense," motives, are of great importance in personality studies. In view of this the author attempts to study the various symbols and expressions conveyed to the observer in terms of physical and social actions; examines the change of the meanings of the symbols, paying special attention to the suggestions of C. G. Jung. In addition to other considerations attention is given to the temporal and spatial experiences of the symbols and expressions. The contributions of Freud, Klages, Glatzel, Glover, Hofstätter, Martini, Cushing, Speer, Storck, and others are summarized and critically evaluated. Some consideration is given to the studies of psychosomatic medicine and the relations to expression, symbol and motivation.—V. J. Biliuskas.

PHYSIOLOGICAL CORRELATES

3321. Abe, Kazuhiko, & Wada, Kikuo. (Osaka City Medical School, Japan) *Significance of some anthropometric indices in early childhood with special reference to mental health problems*. *Folia psychiat. neurol. Jap.*, 1961, 15(3), 200-205.—Within a sample of 300 3-year-olds, a negative correlation was found between the index ponderalis (the cube root of weight divided by height) and indices of social, intellectual, and motor development.—W. A. Wilson, Jr.

3322. Fishman, Jacob R., Hamburg, David A., Handlon, Joseph H., Mason, John W., & Sachar, Edward. (National Inst. Mental Health) *Emotional and adrenal cortical responses to a new experience: Effect of social environment*. *Arch. gen. Psychiat.*, 1962, 6(4), 271-278.—"The results of this study indicate that urinary excretion of 17-hydroxycorticosteroid fluctuates in association with emotional responses of mild-to-moderate intensity, comparable to the distress experiences of ordinary living" and "suggest that factors in the current social environment may have a significant bearing upon emotional and adrenocortical responses to a potentially threatening new experience."—L. W. Brandt.

3323. LaDou, J., Ellman, G. L., Callaway, E., III, Edminster, I. F., & Christensen, R. L. (U. California, San Francisco) *Correlates of manifest anxiety*. *J. psychosom. Res.*, 1962, 6(1), 41-47.—49 males (24 psychiatric cases and 25 prisoners) were compared on 4 indices of anxiety: psychiatric rating, MMPI Pt scale, arm lift after contraction, and hippuric acid index (using the fluorimetric method). Ratings correlated .55 with the hippuric acid index (HAI) and .52 with the Pt scale. Mean HAI for the positive and negative arm lift groups were significantly different. Prison and patient populations differed significantly in both HAI and arm lift.—W. G. Shipman.

THERAPY & GUIDANCE

3324. Kraepelin, Emil. One hundred years of psychiatry. (Trans. by W. Baskin.) New York: Citadel, 1962. 163 p. \$4.75 (cloth), \$1.75 (paper).—An essay describing psychiatric treatment and theory in the 19th century. Translated from the 1917 German edition.—R. S. Harper.

3325. Zuk, G. H. (Eastern Pennsylvania Psychiatric Inst.) Relation of mental age to size of figure on the Draw-A-Person Test. *Percept. mot. Skills*, 1962, 14(3), 410.—It was demonstrated in the sample of now defective, problem children that median height of both figures on the D-A-P about doubled from MA 6 to MA 14; median width increased about 50%. The statistically significant findings suggest that size of the figure drawings on the D-A-P can be a useful clue, along with more conventional signs, in determining level of mental functioning in children.—W. H. Guertin.

MEDICAL THERAPIES

3326. de Mille, Richard. (U. Southern California) Intellect after lobotomy in schizophrenia: A factor-analytic study. *Dissert Abstr.*, 1961, 22(5), 1714-1715.—Abstract.

3327. Nemiah, J. C. (Harvard Medical School, Boston) The effect of leukotomy on pain. *Psychosom. Med.*, 1962, 24(1), 75-80.—A 40-year-old paraplegic underwent a leukotomy for intractable pain in his legs. Comparison of pre- and postoperation interviews showed a significant shift from pain to discussion of his situation. The reduction of his capacity to experience affect, particularly anxiety and depression, is proposed as the reason why he now can face his life situation.—W. G. Shipman.

3328. Pippard, John. (Claybury Hosp., Woodford Bridge, Essex, England) Leucotomy in Britain today. *J. ment. Sci.*, 1962, 108(Whole No. 454), 249-255.—Survey of all facilities in Great Britain indicates about 400 operations per year, with many hospitals having none. Selective use for a minority of patients is recommended.—W. L. Wilkins.

3329. Wittenborn, J. R., Plante, Marc; Burgess, Frances, & Maurer, Helen. (Rutgers U.) A comparison of imipramine, electroconvulsive therapy and placebo in the treatment of depressions. *J. nerv. ment. Dis.*, 1962, 135(2), 131-137.—A double-blind study using placebo, ECT, and imipramine on state hospital female patients concluded: "It is possible that imipramine may be more generally efficacious than ECT in the sense that its ameliorating effects appear to influence more aspects of behavior than does ECT."—N. H. Pronko.

Drug Therapy

3330. Barolin, G. S. (Rosenhügel, Vienna) Principes de la psychothérapie sous agents psycholytiques. [Principles of psychotherapy under psycholytic drugs.] *Evolut. psychiat.*, 1962, 27(2), 283-293.—Psychotherapy with the use of LSD 25 (diethylamid of lysagic acid) is explained. Though deep regressions are frequent, therapy is expedited particularly in the area of emotional insights. Tensions or abreactions may outlast therapy. While dramatic results may be obtained rapidly, the therapeutic relationship must be handled more cautiously than in conventional cases. Positive results tend to occur

in alcoholism, anxiety states, homosexuality, and obsessive-compulsive neurosis. In contrast, it does not seem to be effective in borderline states, hysterical structures, neurotic depressions, and aggressive psychopathic personalities.—L. A. Osilund.

3331. Casparis, Lili. Indikationsbereich von Chlordiazepoxyd (librium) und einiger anderer Psychopharmaka im Kindes- und Jugendlichenalter. [Indications for librium and other psychological drugs in children and adolescents.] *Acta paedopsychiat.*, Basel, 1962, 29(5), 129-151.—Children show different, often paradoxical results, from adults to the administration of librium. Useful in psychoreactive disturbances as well as diffuse brain damage, it is contraindicated in instinctual aberrations. It reduces anxiety and mental tension, facilitating concentration and psychotherapy, but is no substitute for the latter.—G. Rubin-Rabson.

3332. Cohen, Bertram D., Rosenbaum, Gerald; Luby, Elliot D., & Gottlieb, Jacques S. (Wayne State U.) Comparison of phencyclidine hydrochloride (Sernyl) with other drugs: Simulation of schizophrenic performance with phencyclidine hydrochloride (Sernyl), lysergic acid diethylamide (LSD-25), and amobarbital (Amytal) sodium; II. Symbolic and sequential thinking. *Arch. gen. Psychiat.*, 1962, 6(5), 395-401.—A proverb interpretation and a serial task were given to 10 chronic schizophrenics and to groups of normal Ss after administration of the 3 drugs. "With drugs, the phencyclidine hydrochloride group scores were significantly inferior to those of the other drug groups and approximated the mean scores of the . . . schizophrenics. LSD-25 and amobarbital sodium produced slight but insignificant decrements in performance."—L. W. Brandt.

3333. Ditman, Keith S., Hayman, Max, & Whitteley, John R. B. (U. California, Los Angeles, Medical Cent.) Nature and frequency of claims following LSD. *J. nerv. ment. Dis.*, 1962, 134(4), 346-352.—A systematic study was made of the personal statements of 74 out of 87 Ss who had one or more administrations of LSD 6 months to 3½ years previously. Claims of improvement were found to be higher for the 1st 6 months than they were after longer intervals, casting doubt on the alleged psychotherapeutic effects of LSD.—N. H. Pronko.

3334. Freedman, Alfred M., Ebin, Eva V., & Wilson, Ethel A. (New York Medical Coll.) Autistic schizophrenic children: An experiment in the use of D-lysergic acid diethylamide (LSD-25). *Arch. gen. Psychiat.*, 1962, 6(3), 203-213.—Previous experiments with LSD-25 on schizophrenics are discussed. 12 autistic children age 6-12 were given LSD-25 in their preferred liquid. Effects lasted from 20 min. after ingestion till 4 hr. later and included "facial flush, dilation of pupils, some catatonia, some ataxia, complete loss of appetite, increased body awareness . . . desire for physical contact . . . rapid mood-swings from elation to depression, anxiety, or flattening of affect, auditory and visual hallucinations, decreased alertness in most but increased alertness in a few, increased remoteness, decreased . . . and increased eye contact and increased vocalization and verbalization. The hoped-for change from muteness to speech did not occur." (17 ref.)—L. W. Brandt.

3335. Garfield, Sol L., Helper, M. M., Wilcott, R. C., & Muffly, R. (U. Nebraska Coll. Medicine, Omaha) Effects of chlorpromazine on behavior in emotionally disturbed children. *J. nerv. ment. Dis.*, 1962, 135(2), 147-154.—39 children, inpatients of the Nebraska Psychiatric Institute, served as Ss in a double-blind study on the effect of chlorpromazine on emotional disturbances. 19 received the drug and 20 received placebos. Ward ratings and clinical ratings were obtained for each S. While a number of statistically significant differences were obtained, "the actual differences obtained in this study were small."—N. H. Pronko.

3336. Hanlon, Thomas E. (Spring Grove State Hosp.) Use of a demographic index score as a control measure in psychiatric drug research. *Psychol. Rep.*, 1962, 10(2), 465-466.—"A modification of the index of Lindemann and his co-workers (see 34: 1886) was used as a control measure in a psychiatric drug research project evaluating the comparative effectiveness of six phenothiazines, phenobarbital, and placebo in the treatment of acutely ill patients, newly admitted to a state psychiatric hospital. Differential action among treatments was increased by the use of the index, but certain characteristics of the data require that the study be replicated on another sample."—B. J. House.

3337. Knobel, Mauricio. (American Child Guidance Clinic, Buenos Aires) Psychopharmacology for the hyperkinetic child: Dynamic considerations. *Arch. gen. Psychiat.*, 1962, 6(3), 198-202.—"The medication-rejecting family" and "the child-rejecting family" are discussed. (16 ref.)—L. W. Brandt.

3338. Le Borgne, Yvon. (Hôpital Psychiatrique St.-Luc, Pau) Potentialisation des cures de sommeil par le carbamate de méthyl-3-pentyne-1-ol-3. [Increased effectiveness of sleep cures with 3-methyl-pentyne-1-ol-3 carbamate.] *Encephale*, 1962, 51(1), 84-94.—A series of 72 cases of various diagnostic categories show that the effectiveness of sleep therapy is increased by combination of the usual barbiturates with MPC. Optimal dosage seems to be 900 mg. MPC with 0.03 mg. of barbiturate.—W. W. Meissner.

3339. Loranger, Armand W., Prout, Curtis T., & White, Mary Alice. (New York Hosp., White Plains, N. Y.) The placebo effect in psychiatric drug research. *J. Amer. Med. Ass.*, 1961, 176(11), 920-925.—A drug investigation involving 120 hospitalized psychiatric patients was simulated. It appeared to participating patients, psychiatrists, and nurses, that a new tranquilizer and a new energizer were to be evaluated, but both "drugs" were actually placebos. According to the uncontrolled and subjective methods of evaluation, 53% to 80% of the patients benefited from the new "drugs." When matched control groups and objective rating scales were used in the evaluation, significant improvement was caused by the tranquilizer but not by the energizer.—Author abstract.

3340. Lorr, M., McNair, D. M., & Russell, S. B. (VA, Washington, D. C.) Characteristics of psychiatric outpatients receiving tranquilizers. *J. clin. Psychol.*, 1960, 16(4), 442-446.—This report presents part of a larger study which included a survey conducted in all VA mental hygiene clinics concerning

the prevalence, judged benefits, and effects of tranquilizers in treatment of the out-patients of these clinics. According to the survey conducted in 63 clinics: (a) patients who receive tranquilizers as the primary source of therapy, as compared with those who receive psychotherapy, are mostly non-high-school graduates and are frequently diagnosed as psychotics; (b) patients receiving psychotherapy and tranquilizers are more frequently diagnosed as psychotics with strong admixtures of anxiety; (c) therapists seem to agree that anxiety, tension, and hostility are the indicators used to indicate tranquilizer treatment; and (d) the patients with a higher educational level are usually included in psychotherapy and their treatment lasts over 1 year.—V. J. Bieleuskas.

3341. Mitchell, L. E., & Zax, M. (VA Mental Hygiene Clinic, Washington, D. C.) Psychological response to chlorpromazine in a group of psychiatric patients. *J. clin. Psychol.*, 1960, 16(4), 440-442.—A total of 69 psychiatric patients, hospitalized for emotional disorders were divided into an experimental and a control group. The groups were matched for age, sex, length of hospitalization, and degree of anxiety as judged clinically. The experimental group was given chlorpromazine for 30 days, while the control group received the usual routine hospital care without ataractic drugs. Both groups were tested at the beginning and end of the experiment using 5 types of objective personality tests (3 anxiety measures and 2 personality trait evaluators of a more enduring nature). Significant differences were found between the experimental and control groups for 2 of the 3 anxiety measures. No significant changes were observed on the other personality tests.—V. J. Bieleuskas.

3342. Munson, R. F., Theobald, W. A., & Griffith, R. M. (VA Hosp., Lexington, Ky.) Effect of ataractic drugs on success of trial visits of long term patients. *J. clin. Psychol.*, 1960, 16(4), 447.—The return rate of chronic patients who received ataractic drugs and who were continuously hospitalized for 2 years and released on Trial Visit status. 56 Ss received tranquilizers while 31 received none. The findings suggested that, "the patients who had not received drugs were more successful in the outcome of the TV's."—V. J. Bieleuskas.

3343. Pletscher, A. (F. Hoffman-La Roche & Co., Basel, Switzerland) Basic aspects of psychotropic drug action. *Amer. J. ment. Defic.*, 1962, 67(2), 238-244.—Many psychotropic drugs used in human therapy influence cerebral monoamines. The various drug effects are probably produced by different mechanisms such as: (a) decrease of the storage capacity of the tissue for monoamines, (b) decrease of the synthesis of monoamines, (c) inhibition of monoamine oxidase, (d) interference with monoamine penetration, and (e) increase of the sensitivity of central nervous receptors for monoamines. Evidence is adduced that these mechanisms may be causative factors for the pharmacodynamic and clinical effects of psychotropic drugs.—V. S. Sexton.

3344. Ross, Sherman; Krugman, Arnold D., Lyerly, Samuel B., & Clyde, Dean J. (VA Cent., Martinsburg, W. Va.) Drugs and placebos: A model design. *Psychol. Rep.*, 1962, 10(2), 383-392.—In a study of the effects of 10 mg. of d-amphetamine, 80 aged male Ss were randomly assigned to one of 4 groups: (a) Drug, (b) Disguised Drug,

(c) Placebo, and (d) Control. Results from the Clyde Mood Scale indicated a positive placebo effect, in the direction of "comfort," a negative effect of Disguised Drug, and a cancellation of these 2 effects in the Drug Group which did not differ from Controls. Both Drug and Disguised Drug Groups showed impaired performance on psychomotor tests measuring speed and accuracy.—*B. J. House.*

3345. **Sibilio, John Paul.** (Michigan State U.) **The effect of perphenazine on focus of attention in schizophrenia.** *Dissert. Abstr.*, 1962, 22(12), 4413-4414.—*Abstract.*

Shock Therapy

3346. **Roos, Philip.** (Texas State Hosp.) **Evaluation of psychotherapy as an adjunct to insulin-coma therapy.** *J. consult. Psychol.*, 1961, 25(5), 450-455.—Ratings from a test battery including the Grayson Perceptualization Test, Kent EGY, Human Figure Drawing Test, Bender-Gestalt, sentence completion test, and a modification of the Wechsler-Bellevue Picture Completion, showed significantly greater improvement when group and individual therapy is used with insulin shock. The Multidimensional Scale for Rating Psychiatric Patients by psychiatric and ward personnel and the Rorschach failed to discriminate. Therapy patients left the hospital sooner than controls.—*E. R. Oetting.*

PSYCHOTHERAPY

3347. **Abi Rafi, A.** (St. Andrew's Hosp., Norwich, England) **Learning theory and the treatment of tics.** *J. psychosom. Res.*, 1962, 6(1), 71-76.—An attempt was made to treat 2 psychiatric patients suffering from tics by the method of treatment proposed by Yates. Very prolonged periods of massed practice followed by very prolonged rest were successful.—*W. G. Shipman.*

3348. **Bromberg, Walter.** **The nature of psychotherapy: A critique of the psychotherapeutic transaction.** New York: Grune & Stratton, 1962. 108 p. \$4.50.—The book is a conceptual analysis of the ultimate nature of psychotherapy, "one of psychiatry's most interesting problems." The primary aim of all forms of psychotherapy is the modification of energy patterns within the personality which underlie mental and emotional symptoms. Thus, the attempted change is always intrapsychic change, and the therapeutic influence is a force, however, conceived, which brings such change about. The patient's "as if" acceptance of the therapist's metaphorical conceptualization probably operates through trust or belief. The importance of symbolic communication in psychotherapy cannot be overestimated. The empirical verification of psychoanalytic hypotheses is not possible with experimental methods common to other sciences.—*H. H. Strupp.*

3349. **Bugental, J. F. T.** (Psychological Service Ass., Los Angeles) **A phenomenological hypothesis of neurotic determinants and their therapy.** *Psychol. Rep.*, 1962, 10(2), 527-530.—"We suggest the psychotherapist will do well to recognize that some perceptions governing a patient's mode of looking at himself and his world are more available to direct and even explicit refutation than others. The difference seems to lie in the former being taken over

as generalizations from others significant to the patient, while the latter grow out of the patient's personal, idiosyncratic, and emotional experiences."—*B. J. House.*

3350. **Cartwright, Rosalind Dymond.** (U. Colorado) **The effects of psychotherapy on self-consistency: A replication and extension.** *J. consult. Psychol.*, 1961, 25(5), 376-382.—Replication and extension of a previous study (see 33: 6330). Previous results are confirmed but controls also increase in self-consistency. On Butler-Haigh Q sort, clients selecting client-centered therapy were more poorly adjusted in self-to-mother image, controls in self-to-father.—*E. R. Oetting.*

3351. **Gebsattel, V. E.** (Bamberg, Germany) **Medizinische Anthropologie.** [Medical anthropology.] *Jb. Psychol. Psychother. med. Anthropol.*, 1960, 7(3-4), 193-198.—In view of the addition of the term "medical anthropology" to this yearbook, the author takes the opportunity to discuss the meaning of medical anthropology and presents an historical survey of the 60 years of conditions which have promoted the concept of medical anthropology. Medical anthropology is a strongly phenomenologically oriented empirical approach to research. It attempts to give special attention in this evaluation to the understanding of physician-patient relations, and to the psychological implications in medical work. The German scientists who are participating in the movement of medical anthropology are named and the special contributions of Freud and von Weizsacker are underlined.—*V. J. Bieliauskas.*

3352. **Gendlin, E. T., & Shlien, J. M.** (U. Wisconsin) **Immediacy in time attitudes before and after time-limited psychotherapy.** *J. clin. Psychol.*, 1961, 17(1), 69-72.—The unforced Q-sort technique was administered to 45 clients in a time-limited client centered therapy to examine the relation between measures of success in psychotherapy and the development of immediacy of experiencing. A correlation between success measures and the pre- and post-therapy scores on the time attitude Q sort showed that a high degree of immediacy characterized the successful client after, but not before, psychotherapy.—*V. J. Bieliauskas.*

3353. **Goldstein, A. P.** (U. Pittsburgh School Medicine) **Patient's expectancies and non-specific therapy as a basis for (un)spontaneous remission.** *J. clin. Psychol.*, 1960, 16(4), 399-403.—Criticisms concerning the effect of psychotherapy have been based in many instances upon the idea of spontaneous remission of patients not included in psychotherapy. In this study mean pre and post MMPI scores of patients included in individual and group psychotherapy were compared with a group of wait-list controls, and no significant differences were found. However, it was noticed that the wait-list patients, though not undergoing formal psychotherapy, were included in pre-therapy testing, social work, and intake interviews. The suggestion is made that all these encounters present a nonstructured therapeutic experience, and therefore it is possible that various evaluation seminars and encounters with nurses and other hospital staff members may have therapeutic effect upon the patient. It may be better to use the term "non-specific therapy remission" because the phrase does more justice to the facts involved.—*V. J. Bieliauskas.*

3354. Göppert, H. (Freiburg, Germany) *Psychotherapie der Angst*. [Psychotherapy of anxiety.] *Jb. Psychol. Psychother. med. Anthropol.*, 1960, 7(3-4), 214-217.—A theoretical distinction is made between the Freudian fear and anxiety, or the real fear and neurotic fear and anxiety. These Freudian concepts are related to those of Kierkegaard and Heidegger, and thus with the existential standpoint concerning anxiety. The freeing of oneself of an edipus situation is considered an existential step, a "second birth." A "second birth" must be realized, however, by the existence itself. In exposing itself to the "second birth," one means to be of oneself; in the courage to face this anxiety one wins his freedom.—V. J. Bieliauskas.

3355. LeShan, Lawrence L. (Inst. Applied Biology) *Changing trends in psychoanalytically oriented psychotherapy*. *Ment. Hyg., N. Y.*, 1962, 46(3), 454-463.—A discussion of a "major change in theory and technique" of psychoanalytically oriented psychotherapy. The author concludes that 5 basic tenets of psychoanalytic therapy (psychic determinism, the absence of value judgments, the therapist as a faceless mirror, the delay of decision making during therapy, and the belief that behavior rests on a balance of pathological forces) appear to be in the process of being either discarded or drastically modified.—M. H. Lewin.

3356. Levi, Aurelia Leffler. (Columbia U.) *Parent treatment and outcome of child's therapy*. *Dissert. Abstr.*, 1961, 22(4), 1255.—Abstract.

3357. Mora, George; DeVault, Spencer, & Schopler, Eric. (Astor Home Children, Rhinebeck, N. Y.) *Dynamics and psychotherapy of identical twins with elective mutism*. *J. child Psychol. Psychiat.*, 1962, 3(1), 41-52.—Mutism was a means of controlling the environment and protecting the twins from awareness and expression of their own hostility. Treatment was aimed at breaking the tie of the "twinship" and encouraging differentiation between these adolescent sisters.—J. M. Reisman.

3358. Quaytman, Wildred. (New York U.) *Motivation for psychotherapy: A comparative investigation of motivational factors in female neurotic outpatients who prematurely terminate and those who remain in psychotherapy*. *Dissert. Abstr.*, 1962, 22(12), 4412.—Abstract.

3359. Raskin, A. (Veterans Benefits Office, Washington 25, D. C.) *Factors therapists associate with motivation to enter psychotherapy*. *J. clin. Psychol.*, 1961, 17(1), 62-65.—Out of 250 cases from 19 VA Mental Hygiene Clinics, 2 samples of 50 cases each were drawn as Ss to clarify the meaning of motivation-to-enter-psychotherapy by identifying the variables therapists associate with this concept. 15 patient and therapist variables were examined; 5 variables were found significantly correlated with the therapist ratings on the motivation scale. "Patients whom therapists rate high on motivation to enter psychotherapy are liked by the therapist a little more or much more than most other patients, have come to the clinic expecting psychotherapy, and have had at least some high school or vocational school training. The only factor consistently associated with low ratings on the motivation scale was the therapists' reports that these patients came to the clinic expecting physical or medical treatment, including drugs."—V. J. Bieliauskas.

3360. Rinsley, Donald B., & Inge, George P., III. (Topeka State Hosp., Kan.) *Psychiatric hospital treatment of adolescents: Verbal and non-verbal resistance to treatment*. *Bull. Menninger Clin.*, 1961, 25(5), 249-263.—Effective treatment of hospitalized adolescents must involve an adequate recognition of the child's efforts to defeat structure and appropriate ways of conveying to the child that recognition has occurred. Devices used to defeat structure are classified and the basic metaphorical messages the child transmits to adult team members are discussed.—W. A. Varvel.

3361. Voth, Harold M., Modlin, Herbert C., & Orth, Marjorie H. (Menninger Found.) *Situational variables in the assessment of psychotherapeutic results*. *Bull. Menninger Clin.*, 1962, 26(2), 73-81.—The psychiatric patient's behavior and relevant environmental events are recorded at the beginning of treatment, at termination, and again 2 years later. Situational variables are classified as conflict triggers, stress, support, opportunity, need-congruence, and mutability. The analysis of the interaction of patient and situational variables provides an essential frame of reference for assessing psychotherapy results. Without it, too much may be attributed to therapy or to changes within the patient.—W. A. Varvel.

3362. Watts, Virginia N. *Effects of therapy on the creativity of a writer*. *Amer. J. Orthopsychiat.*, 1962, 32(1), 186-192.—A description of psychoanalytic psychotherapy with a young homosexual writer indicates the way in which the artist, his work, and his dynamics are intertwined. Successful therapy results in increased creativity and production.—R. E. Perl.

Therapeutic Process

3363. Aleksandrowicz, Dov R. *The meaning of metaphor*. *Bull. Menninger Clin.*, 1962, 26(2), 92-101.—A case is presented in which "speaking the patient's language" was often accomplished by using metaphorical expressions. The patient with schizophrenic thought disorder is apt to use metaphors in a special manner. The "Gestalt of a metaphor is a complex configuration of cognitive and affective elements" which "the therapist cannot expect to comprehend by intellectual grasp alone."—W. A. Varvel.

3364. Enke, H., & Ohlmeier, D. (Landhaus Umkirch bei Freiburg, Germany) *Über die Bedeutung spontaner Bildnerien in der Psychotherapie*. [On the significance of spontaneous creativities during psychotherapy.] *Z. psycho-som. Med.*, 1962, 8(1), 45-48.—Patients' spontaneous artistic creations may be taken as representing their "in-pictures." The significance can properly be grasped if all such creations are interpreted in 3 dimensions: their thematic message projecting the patient's intrapsychic images, experiences, and thoughts; their formal construction depending on the patient's total personality; and the patient's general esthetic ambitions. The scoring of the formal characteristics developed from the graphological categories of Heiss, makes it possible to recognize personality changes during the therapeutic process beyond the therapist's unavoidable involvement in the doctor-patient encounter.—I. Neufeld.

3365. Farson, Richard E. (Western Behavioral Sciences Inst. La Jolla, Calif.) *Introjection in the*

psychotherapeutic relationship. *J. counsel. Psychol.*, 1961, 8(1), 337-342.—Using Butler-Haigh Q sort, clients are not more similar to their own therapist after therapy than to other therapists, but judges could predict therapists whose clients will resemble themselves and those whose clients will not.—*E. R. Oetting.*

3366. Goldman, Jeri Joan Richards. (Stanford U.) **The relation of certain therapist variables to the handling of psychotherapeutic events.** *Dissert. Abstr.*, 1961, 22(5), 1715.—*Abstract.*

3367. Heller, Kenneth, & Goldstein, Arnold, P. (U. North Dakota) **Client dependency and therapist expectancy as relationship maintaining variables in psychotherapy.** *J. consult. Psychol.*, 1961, 25(5), 371-375.—"Results . . . indicated a strong positive relation between client pre-therapy attraction to the therapist and; (a) both clients self-descriptive and behavioral dependency before therapy and; (b) clients self-descriptive but not behavioral movement toward independence." There was also a high relationship between pretherapy attraction and overt post-therapy dependency. Favorable therapist expectation may help in maintaining the therapeutic relationship. Tests used include the Picture Impressions Test, Edwards Personal Preference Schedule and a Situational Test of Dependency. Therapist expectation was measured by Q sort.—*E. R. Oetting.*

3368. Lapkin, Benjamin. (Hillside Hosp., Glen Oaks, N. Y.) **The relation of primary-process thinking to the recovery of subliminal material.** *J. nerv. ment. Dis.*, 1962, 135(1), 10-25.—2 hypotheses were tested: (a) Ss who show primary thinking will show better recovery of subliminal stimuli than Ss who do not, and (b) Ss who show well-controlled primary-process thinking will show greater recovery of substitute stimuli than those with poor control. It is suggested that "the conditions of the study did not allow for an adequate test of the hypothesis."—*N. H. Pronko.*

3369. Rader, G. E. (U. North Carolina) **Rorschach productivity and participation in group psychotherapy.** *J. clin. Psychol.*, 1960, 16(4), 422-424.—Zubin's idea concerning the relationship between interview productivity and Rorschach productivity was extended to the productivity in psychotherapy. 45 state prison inmates were used in this study; mental defectives and obvious psychotics were excluded. The Ss were divided into 6 groups which met weekly with psychiatric residents (Groups I-IV) and psychologists (Groups V-VI) for a discussion. The number of responses, self-expression divided by number of R's, and emotionalization divided by number of R's were used as the 3 Rorschach criteria designating productivity. Therapy participation was evaluated on the gains of 6 rating categories. No significant relationships were found between the 3 measures of Rorschach productivity and the productivity in psychotherapy.—*V. J. Bieliauskas.*

3370. Rickard, H. C., Dignam, P. J., & Horner, R. F. (VA Hosp., Tuscaloosa, Ala.) **Verbal manipulation in a psychotherapeutic relationship.** *J. clin. Psychol.*, 1960, 16(4), 364-367.—3 different experimenters attempted to achieve verbal conditioning in a 60-year-old male who has been hospitalized continuously for over 20 years in a VA Hospital. The first E attempted to condition "the dependent variable,

rational speech, to a high level of occurrence under a high frequency of reinforcement, but the conditioned response dropped sharply when an attempt was made to lower the frequency of reinforcement. E2 exposed the same S to alternating 10 minute periods of 'minimal' and 'maximal' reinforcement and demonstrated conditioning of the same dependent variable. E3 replicated the procedure which E2 had followed and obtained similar results."—*V. J. Bieliauskas.*

3371. Stone, Leo. **The psychoanalytic situation: An examination of its development and essential nature.** New York: International Univer. Press, 1961. 160 p. \$4.00.—Delivered as part of the Freud Anniversary Lecture Series of the New York Psychoanalytic Institute, this book describes the psychoanalytic situation in terms of: the physician-patient relationship, the classical psychoanalytic situation, additional comments on the transference-countertransference complex and the transference neurosis, the primary unconscious meaning of the psychoanalytic situation, and biological and primitive psychological aspects of the psychoanalytic situation. 3 patterns of relationship are discerned: (a) the real and actual integrated personal relationship; (b) the transference-countertransference relationship; and (c) the unique system of routinized activities, deprivations, and prohibitions which are anchored in the psychoanalytic technique. The psychoanalytic setting tends to reproduce, from the outset, the repetitive phases of the state of relative separation from early objects, notably the mother. The analyst, unconsciously, represents the mother-of-separation.—*H. H. Strupp.*

3372. Tagliacozzo, R., & Tolentino, I. **La coazione a ripetere ed il transfert.** [Repetition compulsion and transference.] *Arch. Psicol. Neurol. Psichiat.*, 1962, 23(3), 197-222.—After a review of the psychoanalytic literature on repetition compulsions, clinical cases are presented to illustrate their reappearance in psychotherapy.—*L. L'Abate.*

3373. Thorne, F. C. (Vermont) **Towards more realistic expectations of psychotherapists.** *J. clin. Psychol.*, 1961, 17(1), 101-102.—Rogers' principle of "unconditional positive regard" and "unconditional" prizing of the client is critically evaluated in an editorial. The question is raised as to what extent the therapist should prize and accept asocial and completely improper attitudes of the client. He also raises the question whether this "unconditional acceptance" and "prizing" is necessary in therapy. The point is made that "some very blunt, outspoken, critically evaluative persons have also made very good therapists."—*V. J. Bieliauskas.*

Group Therapy

3374. Bell, John E. (National Inst. Mental Health, San Francisco) **Recent advances in family group therapy.** *J. child Psychol. Psychiat.*, 1962, 3(1), 1-15.—An application of small group theory to understanding and producing change in the family unit by: (a) increased intercommunication, (b) greater flexibility in roles and functions, and (c) greater discipline in the choice and form of relationships. (108-item bibliogr.)—*J. M. Reisman.*

3375. Friedman, Alice R. (Harlem Valley State Hosp., Wingdale, N. Y.) **Education as part of a group therapy program.** *Ment. Hosp.*, 1962, 13(5), 274.—*L. Gurel.*

3376. Grunebaum, H. Group psychotherapy of fathers: Problems of technique. *Brit. J. med. Psychol.*, 1962, 35(2), 147-154.—"The 'strategy' of group psychotherapy is that the leader does not gratify the infantile needs of the members, but rather 'gives' to them increased understanding through clarification and interpretation of their feelings towards each other and towards the leader. This therapeutic aim can only be accomplished in the context of a strong and positive therapeutic alliance between the group and the leader. A 'positive alliance,' as manifested in a warm emotional climate and free and active participation, may be fostered by dealing with three clinical problems arising in the course of the group. Each of these seems particularly associated with a different phase of the group, although, of course, there is a great overlap."—C. L. Winder.

3377. Rickard, Henry C. (U. Alabama) Selected group psychotherapy evaluation studies. *J. gen. Psychol.*, 1962, 67, 35-50.—The literature is replete with qualitative descriptions of the outcome of group psychotherapy, but quantified, well controlled evaluation studies remain few in number. 22 articles were reviewed which met the minimal requirements of a control group and at least one objective criterion of improvement. Each experiment is described in moderate detail with only minimal evaluative comment. Elements of the experiments consistently examined were: population, matching, design, outcome, and criteria of improvement. A general critique is offered at the end.—*Author abstract.*

3378. Slavson, S. R. A critique of the group therapy literature. *Acta psychother. psychosom., Basel*, 1962, 10(1), 62-73.—The literature reflects the confusion that exists in individual therapy, since the same practitioners do both types of treatment. As a new field, bizarre doctrines and practices appear. Most therapists are engaged in neo-Freudian practice, using techniques different from classical psychoanalysis. The need is for valid research.—G. Rubin-Rabson.

Special Therapies

3379. Sylvander, Inga. Beskrivning av en jagstödande psykoterapi. [Description of an ego-supporting psychotherapy.] *Nord. Psykol.*, 1962, 14(3), 109-167.—The treatment of a 6-year old boy with severe adjustment difficulties due to defective ego functions is detailed. The case illustrates the use of ego-supporting techniques as distinguished from "depth" techniques in which ego-regression is fostered. The theoretical and technical distinctions between these 2 modes of psychotherapy are discussed. (English summary)—L. Goldberger.

3380. Walton, D. (Winwick Hosp., Warrington, Lancaster, England) The application of learning theory to the treatment of a case of somnambulism. *J. clin. Psychol.*, 1961, 17(1), 96-99.—The reciprocal inhibition technique described by Wolpe was applied on a case of a potentially dangerous somnambulist. The case history and method of therapy is described in the follow-up report. A special program in applying the principle of reciprocal inhibition was arranged for the patient during one interview and a rapid and positive response to this treatment was reported. A 2-year follow-up did not show a return of the condition or any other symptoms associated with it.—V. J. Bieliauskas.

3381. Wolpe, Joseph. (U. Virginia School Medicine, Charlottesville) Isolation of a conditioning procedure as the crucial psychotherapeutic factor: A case study. *J. nerv. ment. Dis.*, 1962, 134(4), 316-329.—A patient with a single severe phobia for automobiles was treated. A deconditioning technique systematic desensitization was correlated with improvement that was quantitatively related to the number of reinforcements given.—N. H. Pronko.

HYPNOSIS

3382. As, Arvid. (Oslo U.) Non-hypnotic experiences related to hypnotizability in male and female college students. *Scand. J. Psychol.*, 1962, 3(2), 112-121.—Some recent research on the relation between subjective experiences and hypnotic susceptibility is reviewed. In a male sample of 50 Ss significant correlations between scores on the author's Experience Inventory (see 37: 1448) and hypnotizability were found. A cross-validation of composite experience scores on this sample and a female sample studied earlier gave positive results. Based on several sources of data a preliminary analysis is made of the similarities and differences between male and female students regarding experiences related to hypnotizability.—*Journal abstract.*

3383. Barber, Theodore X. (Medfield State Hosp., Mass.) Experimental controls and the phenomena of "hypnosis": A critique of hypnotic research methodology. *J. nerv. ment. Dis.*, 1962, 134(6), 493-505.—Experiments are criticized for their failure to control the following variables: those pertaining to the S, prior training, interest in the experiment, motivation to do well on the criterion task, S-E relationship, and the definition of the situation to the S.—N. H. Pronko.

3384. Ferster, C. B., Levitt, E. E., Zimmerman, J., & Brady, J. P. The measurement of hypnotic effects by operant-reinforcement techniques. *Psychol. Rec.*, 1961, 11, 427-430.—Matching-to-sample technique was used where S was reinforced for pressing a key under a stimulus which did not match the sample which had disappeared. Differing error rates and amounts were obtained with varying instructions under hypnosis. The technique is proposed as useful for studying many variables relating to hypnosis; e.g., duration of effectiveness of suggestion and relative efficiency of various hypnotic techniques.—R. J. Seidel.

3385. London, Perry. (U. Illinois) Hypnosis in children: An experimental approach. *Int. J. clin. exp. Hypn.*, 1962, 10(2), 79-91.—Based on the Stanford Hypnotic Susceptibility Scale, the Children's Hypnotic Susceptibility Scale, a standardized induction procedure for children 5 years and older, was developed. Interscorer and retest reliability was high. 2 scoring systems are employed, one measuring overt behavior and the other subjective involvement. Comparing children to college students on items, children were found significantly more susceptible. A linear relationship was found between age and simulation ability. A suspected curvilinear relationship may be a function of confounding simulation ability and motivation with hypnotic behavior.—C. S. Moss.

3386. London, Perry, & Fuhrer, Marcus. (U. Illinois) Hypnosis, motivation, and performance. *J. Pers.*, 1961, 29(3), 321-333.—16 hypnotically sus-

ceptible and 16 relatively unsuceptible female Ss, by the Stanford Hypnotic Susceptibility Scale, performed on a hand dynamometer, a weight-holding task, and a tremor test in both a hypnotized and an un hypnotized state. During the next session, the same procedures were followed, but in addition, the Ss were strongly exhorted to perform at their maximum. "A manifestly surprising finding was that the performance of hypnotically unsuceptible Ss was consistently superior to that of highly susceptible Ss for all conditions on both the weight-holding and dynamometer tasks." Unsuceptible Ss performed best when un hypnotized, susceptibles when hypnotized. "Motivational instructions are clearly more important than the hypnotic trance."—G. T. Lodge.

3387. Moore, Rosemarie Klein. (Stanford U.) **Suceptibility to hypnosis and susceptibility to social influence.** *Dissert. Abstr.*, 1961, 22(5), 1735-1736.—Abstract.

3388. Reyher, Joseph, & Shoemaker, Donald. (Michigan State U.) **A comparison between hypnotically induced age regressions and waking stories to TAT cards: A preliminary report.** *J. consult. Psychol.*, 1961, 25(5), 409-413.—A complex method of scoring differences (D) between protocols for TAT cards is devised. Ss were given conflict inducing instruction and regressed to an age when the conflict was difficult to manage. High D scores occur with both conflict and neutral cards, but neutral cards are associated with positive affect. Sample protocols are included "... immediate diagnostic significance ... over-shadowed ... experimental goals."—E. R. Oetting.

3389. Sparks, Laurance. **Self-hypnosis: A conditioned response technique.** New York: Grune & Stratton, 1962. xiii, 255 p. \$5.75.—The description of self-hypnotic procedures within a psychological orientation of conditioning. Little theoretical material is presented regarding hypnosis, per se, with the major portions of the book limited to techniques for self-hypnosis and the measurement of self-hypnotic depth. Applications include time-distortion mechanisms and self-directed treatment for such conditions as obesity, pain anxiety, allergies, sexual disorders, habits, and a variety of other human problems.—M. V. Kline.

3390. Stevenson, D. R., Stoyva, J., & Beach, H. D. (Dalhousie U., Canada) **Retroactive inhibition and hypnosis.** *Bull. Maritime Psychol. Ass.* 1962, 11(1), 11-15.—The hypothesis, from the Theory of Associative Interference, was tested: that if original material is learned in the waking state and interpolated material is learned in the hypnotic state, then retention will be higher than if both materials were learned in the waking state. Results failed to support hypothesis and implications are compared with results of Mitchell and Nagge.—C. W. Page.

3391. Weitzenhoffer, Andre M. (Stanford U.) **The significance of hypnotic depth in therapy.** *Int. J. clin. exp. Hypn.*, 1962, 10(2), 75-78.—It is a common assumption that hypnosis has a quality of degree. While clinicians often state that success is unrelated to depth, the author maintains that depth determines the techniques one can successfully use in hypnotherapy. At the same time he believes that hypnotic behavior is multidimensional and that the major determinant of hypnotherapeutic success is the

therapist's ability to establish a meaningful interpersonal relationship.—C. S. Moss.

DREAMS

3392. Berger, Ralph J., & Oswald, Ian. (U. Edinburgh, Scotland) **Eye movements during active and passive dreams.** *Science*, 1962, 137(Whole No. 3530), 601.—Independent confirmation is offered that the amount of rapid eye movement during dreaming is associated with the dream content.—*Journal abstract.*

3393. Roth, N. (New York) **Dream data on the relation of perception and motility.** *Percept. mot. Skills*, 1962, 14(3), 427-430.—Sensory processes are discussed not as fixed or constant in nature, but undergoing numerous alterations according to the total emotional situation. They are promptly expressed in motor readiness and motor performances which reveal specific vicissitudes in accordance with the underlying sensory events. The relationship between sensation and motility can be observed in detail in dream interpretation.—W. H. Guertin.

3394. Roth, N. (NYC) **Perception in dreams.** *Percept. mot. Skills*, 1962, 14(1), 7-9.—Clinical and theoretical evidence reveals that the perceptual process for all modalities of sensation can be studied by examination of manifest dream content. The method shows the evolution of percepts, whereby they attain either veridical refinement or pathologic distortion.—W. H. Guertin.

CASE HISTORIES

3395. Apfeldorf, M. (VA Cent., Martinsburg, W. Va.) **Perceptual and conceptual processes in a case of left-sided spatial inattention.** *Percept. mot. Skills*, 1962, 14(3), 419-423.—Analysis of the drawings of a commercial artist with left-sided spatial inattention suggested that inattention occurred most frequently in tasks that were complex, and required conceptualization or imagination rather than direct perception. The inattention in the drawing process occurred not only in relation to the major Gestalt or unit but to all the sub-Gestalts of the drawing. It appeared that new subjective midlines occurred even toward the right of the paper and aspects of details on the left of these subjective midlines were omitted.—W. H. Guertin.

3396. Crumpton, E. (VA Hosp., Los Angeles) **Projective case study of a true hermaphrodite.** *J. proj. Tech.*, 1962, 26(3), 266-275.—"Rorschach and TAT protocols are presented in a projective case study of a true hermaphrodite, whose see-saw solutions to the problem of sexual identification led him both to success as a creative professional person and prolonged hospitalization as a paranoid schizophrenic."—A. Greenwald.

3397. Moss, C. Scott; Thompson, Mary Margaret, & Nolte, John. (National Inst. Mental Health) **An additional study in hysteria: The case of Alice M.** *Int. J. clin. exp. Hypn.*, 1962, 10(2), 59-74.—Detailed account of the psychotherapy of one female hysteric—a treatment failure—is the stimulant for discussion of the genetics and dynamics of this nosology. Hypnosis revealed the experimental basis for the symptoms and associated adjustment difficulties. The dynamics bear a remarkable resemblance to those advanced by Freud, though issue is taken with

several psychoanalytic concepts. The discussion deals largely with the phenomenology of the female hysteric.—*Author abstract.*

3398. Schultz, J. H. (Bayernallee 17, Berlin-Charlottenburg, Germany) *Ein psychotherapeutischer Fall bei Johanna Spyri.* [A case of psychotherapy described by Johanna Spyri.] *Prax. Psychother.*, 1962, 7(3), 111-114.—The treatment of homesickness in a book in the Heidi series by J. Spyri is quoted at some length with little comment except that it was written 20 years before Jasper's classical dissertation on the subject.—*W. Swartley.*

3399. Siegal, R. S., Rosen, I. C., & Ehrenreich, G. A. (Menninger Found.) *The natural history of an outcome prediction.* *J. proj. Tech.*, 1962, 26(1), 112-116.—Test data are presented in the case of a 27 year old married nurse, with the process of interpretation and inferences as to underlying personality variables presented. Predictions as to therapeutic outcome are discussed in light of the therapeutic approach and patient's character structure.—*A. R. Greenwald.*

PSYCHIATRIC SERVICES

3400. Kreitman, Norman. (Graylingwell Hosp., Chichester, Sussex, England) *Psychiatric orientation: A study of attitudes among psychiatrists.* *J. ment. Sci.*, 1962, 108(Whole No. 454), 317-328.—The entire medical staffs of Maudsley and Bethlem Royal Hospitals in London who were treating patients as of May 1956 completed attitude scales designed to measure sympathy with psychological and organic approaches to psychiatric problems and Guilford-Martin Inventory and A and R scales of the MMPI (N of 78). Endorsement of the psychological orientation was significantly and positively correlated with Guilford-Martin T, D, and D+C scales, with MMPI A scale, and with ratings of introversion. Sympathy with the organic approach correlated negatively with the T scale. Increasing psychiatric experience was associated with fall in organic scores and rise in psychological attitude scores.—*W. L. Wilkins.*

3401. Pulos, Lee; Nichols, Robert C., Lewinsohn, Peter M., & Koldjeski, Theodore. (LaRue D. Carter Hosp., Indianapolis, Ind.) *Selection of psychiatric aides and prediction of performance through psychological testing and interviews.* *Psychol. Rep.*, 1962, 10(2), 519-520.—Predictive ratings by a chief nurse after one interview and performance on various standard tests of 44 new psychiatric aides were correlated with efficiency ratings by supervisors after 90 days service. Only the chief nurse's ratings and one test subscore were significantly related to criterion. Relationships between the chief nurse's ratings and test scores and the value of the interview as a selection procedure were discussed.—*B. J. House.*

3402. Saslow, G., & Matarazzo, J. (U. Oregon Medical School) *A setting for social learning.* *Ment. Hosp.*, 1962, 13(4), 217-226.—Novel emphases in the operation of the psychiatric service of the University of Oregon Medical School are described as "analogous to those of Skinnerian conditioning."—*L. Gurel.*

3403. Simon, J. Richard, & Olson, Marian E. (U. Iowa) *Assessing job attitudes of nursing*

service personnel. *Nurs. Outlook*, 1960, 8(8), 424-427.—Attitudes of nursing service personnel on an experimental ward (where the nursing staff had been augmented and an inservice education program had been conducted) were compared with attitudes of a control group. The groups did not differ on a mean index of job satisfaction but did differ on certain individual questionnaire items. Nurses ranked "a good chance to do interesting work" and "opportunity to do good patient care" as the most important factors in their jobs.—*J. R. Simon.*

Institutional Care

3404. Ball, A. E., Pile, E., & Hogshead, T. (New Mexico State Hosp., Las Vegas) *A small state hospital: Putting first things first.* *Ment. Hosp.*, 1962, 13(6), 331-333.—Changes in operation of the New Mexico State Hospital in the pre-ataractic years "managed to reduce its patient population by almost 15 per cent." The authors conclude "that a small, dedicated staff under good leadership can work wonders."—*L. Gurel.*

3405. Band, Raymond I., & Brody, Eugene B. (U. Maryland) *Human elements of the therapeutic community: A study of the attitudes of people upon whom patients must be dependent.* *Arch. gen. Psychiat.*, 1962, 6(4), 307-314.—13 mainly 1st-year psychiatric residents, 20 graduate psychiatric nurses, and 44 Negro aides in a university psychiatric hospital were given a 40 multiple-choice questionnaire regarding attitudes towards wards, patients, staff functions, and treatment. 7 residents, 8 nurses, and 8 aides were interviewed concerning 10 patient-staff situations. Results showed that professional attitudes, values, and response tendencies of the 3 groups differ significantly and persist despite intensive efforts at interprofessional communication. "A potential for intrastaff conflict is built into the structure of the psychiatric treatment unit . . . [and] is related to the social and occupational status and role of each staff member." The negative influences intrastaff conflict may have on patient care are discussed. (17 ref.)—*L. W. Brandt.*

3406. Bell, Robert Louis, Jr. (U. Texas) *Factors influencing attitudes toward hospital discharge in neuropsychiatric patients.* *Dissert. Abstr.*, 1961, 22(6), 2067-2068.—*Abstract.*

3407. Bierer, J. (Marlborough Day Hosp., London, England) *The day hospital: Therapy in a guided democracy.* *Ment. Hosp.*, 1962, 13(5), 246-252.—*L. Gurel.*

3408. Bortner, R. W. (VA Cent., Kecoughton, Va.) *Super-ego functioning and institutional adjustment.* *Percept. mot. Skills*, 1962, 14(3), 375-379.—3 groups representing different patterns of adjustment in an institutional environment were compared with each other and with noninstitutional groups. Some of these noninstitutional samples were younger than the institutional groups; 2 samples were older. The hypothesis that these institutionalized groups would differ from noninstitutional samples and among themselves on measures of superego functioning and that these differences in functioning could not be attributable solely to the effects of aging was partially substantiated. Significant differences on 6 of the 8 measures were obtained.—*W. H. Guertin.*

3409. Clark, D. H., Hooper, D. F., & Oram, E. G. (Cambridge U.) Creating a therapeutic community in a psychiatric ward. *Hum. Relat.*, 1962, 15(2), 123-147.—The transformation of a women's ward into an effective therapeutic community is described in detail. Within the social structure of the ward, the roles of both patients and staff were modified considerably by the creation of a permissive and unstructured milieu which permitted patients to become active in organized patterns of interaction. An oscillatory process of growing social disorganization followed by social reorganization and the emergence of focal roles among the patients were prominent elements in the social process of the change. Problems arising from interaction with other administrative units of the hospital are discussed.—*W. W. Meissner*.

3410. Davis, J., Griffith, R., & Bradley, Doris. (VA Hosp., Lexington, Ky.) A morale survey through the depth interview. *Ment. Hosp.*, 1962, 13(4), 212-213.—Depth interviews with a carefully selected representative sample replaced questionnaires in a morale survey of mental hospital employees. In addition to areas specifically under study, it was found that morale was affected by personal factors unrelated to the work setting.—*L. Gurel*.

3411. Fletcher, Mildred E. (126 West Main St., Williamson, N. Y.) Attitudes of a group of nursing students toward a clinical affiliation in a public hospital for the mentally ill. *J. Psychol.*, 1962, 54(1), 47-63.—The purpose of the study was to determine the attitudes of nursing students toward psychiatric nursing and whether the attitudes revealed implications relative to future program planning for students during psychiatric affiliation. The Ss were 35 nursing students from 3 hospital schools of nursing. The technique was an attitude questionnaire of 100 questions relating to selected areas, significant of attitudes toward psychiatric nursing. Results of analysis revealed many unfavorable attitudes toward psychiatric nursing which should be of concern to nurse educators in this field.—*Author abstract*.

3412. Goffman, Erving. (U. California, Berkeley) Asylums: Essays on the social situations of mental patients and other inmates. Garden City, N. Y.: Doubleday (Anchor), 1961. xiv, 386 p. \$1.45 (paper).—First an exposition is given of characteristics which mental hospitals share with other "total institutions" (e.g., jails, military camps, monasteries) and how their inmates adjust in similar ways to them. This process is then described as the "moral career of the mental patient," and the situation is further elaborated by a field study on "the underlife of a public institution: study of ways of making out in a mental hospital." Finally "some notes on the vicissitudes of the tinkering trades" are made in regard to "the medical model and mental hospitalization."—*R. Kaelbling*.

3413. Guépin, Florence. Hospitalisation et immobilisation prolongées chez de jeunes enfants: Leurs conséquences psychologiques. [Prolonged hospitalization and immobilization of young children: Their psychological consequences.] *Enfance*, 1962, No. 2, 127-168.—20 girls and 6 boys having orthopedic conditions were divided into 2 groups of equal size. One group, ages 13 mon.-3 yr., was studied from the beginning of treatment while the other group, ages 17 mon.-4 yr.-1, had already been hospitalized and immobilized over a period of several

months. Tests, drawings, observations, questionnaires, and parent interviews supplied data for within- and between-group comparisons. In spite of recognized limitations of the data, the following conclusions are drawn: (a) undesirable effects upon development are greatest for those children who are deprived of contact with their homes, (b) children whose families are stable and well balanced do not appear to suffer profoundly from hospitalization or immobilization.—*S. S. Marzolf*.

3414. Hooper, D. F. (Tavistock Inst. Human Relations, London, England) Changing the milieu in a psychiatric ward. *Hum. Relat.*, 1962, 15(2), 111-122.—The change of a men's disturbed ward from a rigid, unpleasant, and restraining environment to a much more permissive and stimulating type of administration is described. Physical changes were striking, but social-psychological changes were not so marked. Discrepancy was found between improvement on several behavioral indices and the perception of change reflected in nurses' ratings. The necessity of taking into account the stability and coherence of existing social structures, while introducing innovations, is stressed.—*W. W. Meissner*.

3415. Huet, J.-A. Les problèmes économiques découlant de l'encombrement des hopitaux psychiatriques par les vieillards. [Economic problems following from the overcrowding of psychiatric hospitals for the aged.] *Hyg. ment.*, 1962, 51(1), 5-11.—Economic problems are discussed and the conclusion is drawn that such factors are forcing a complete revision of present concepts of hospital living, the training of personnel, and subsidization of research institutions. A 3-fold solution is suggested: day-hospitals, protective work-groups, and post-cure homes.—*W. W. Meissner*.

3416. Jones, Roy Junius. (American U.) The effects of inter-ethnic group contact in a desegregated hospital community. *Dissert. Abstr.*, 1961, 22(5), 1710.—*Abstract*.

3417. Kuncze, J., & Anderson, W. (VA Hosp., Jefferson Barracks, Mo.) Maze performance and privileges in a psychiatric hospital. *J. clin. Psychol.*, 1960, 16(4), 362-364.—This study attempted to investigate the relationship between Peters' Circular Mazes for measuring of decision-making capacity and the self-management of the patient which was judged in terms of the ward staff's decision to grant or withhold privileges. 117 Ss were included in the first sample of this study and the results were cross-validated against 110 patients who were admitted later into the same hospital, the total sample being 227 cases. The results indicated that at the .001 level maze performance was related to progress in self-management. It was suggested that mazes could be a useful technique for screening patients for early discharge from an institution.—*V. J. Bielewskas*.

3418. Pense, A. W., Patton, R., & Hills, G. (Office Mental Retardation, Albany, N. Y.) The use of sampling techniques to determine the extent of patients' physical care needs in several institutions. *Amer. J. ment. Defic.*, 1962, 67(2), 211-217.—A central mental health agency which operates a number of institutions for the mentally retarded must have some method of staffing these institutions equitably. A method is described for the assignment of ward personnel, by use of an existing punch card system, sampling the population, and selecting those

patients who require special care. The results of the study in terms of the population of the institutions and the total nursing care needs are indicated.—V. S. Sexton.

3419. Roberts, E. L., & Lindsay, J. S. B. The mental hospital: Structure, function, and communication. *Brit. J. med. Psychol.*, 1962, 35(2), 155-164.—Operation of a mental hospital as a therapeutic community involves detailed understanding of structure, communication, and functional problems which are described and discussed.—C. L. Winder.

3420. Schmiedeck, Raoul A. (Hall-Brooke Hosp., Westport, Conn.) A treatment program for adolescents on an adult ward. *Bull. Menninger Clin.*, 1961, 25(5), 241-248.—Major deficiencies in treating adolescents on an adult ward in a mental hospital were noted: insufficient control of aggressive and disruptive behavior, insecurity on the part of the staff and absence of a consistently helpful attitude, development of a tense atmosphere through domination of ward life by teenagers, lack of educational and adjunctive therapy facilities, and lack of staff time to meet patients' need for attention. Desirable results were achieved by shifting authority from the staff to the patients and by creating small groups of patients ("family units"), each consisting of adults and adolescents.—W. A. Varvel.

3421. Simon, J. Richard, & Chastain, Sally S. (U. Iowa) Take a systematic look at your patients. *Nurs. Outlook*, 1960, 8(9), 509-512.—The article suggests that "patient welfare is reflected in the patient's activity pattern." A method for recording the activity of hospitalized patients is described. Authors discuss patient activity sampling as a tool for identifying problems, as a means of evaluating changes, and as an aid in everyday nursing.—J. R. Simon.

3422. Simon, J. Richard. (U. Iowa) Systematic ratings of patient welfare. *Nurs. Outlook*, 1961, 9(7), 432-436.—The article suggests that "patient welfare is the ultimate criterion for evaluating the adequacy of patient care." 4 rating scales are described which measure different dimensions of patient welfare: mental attitude, mobility, physical independence, and skin condition. The author suggests ways in which improved patient care can result from a systematic use of the rating scales.—J. R. Simon.

3423. Sines, L. K., & Silvers, R. J. (U. Minnesota Medical School) MMPI correlates of ward placement among state hospital patients. *J. clin. Psychol.*, 1960, 16(4), 404-406.—In many state hospitals, patients are grouped in wards according to their probable behavior trends, such as: their proneness for escape, anti-social behavior, and other evidences of management difficulties. In this paper the MMPI scores were correlated with the ward placement of the patients at Fergus Falls St. Hospital who were amenable to MMPI testing (total N equal 611). Hathaway codes were used in obtaining the mean profiles, and the results showed high correlation between the ward placement and the MMPI profiles of the patients. Since the MMPI was not used as a criterion for ward selection, the findings were interpreted as indicating that "ward placement of patients has objective psychological correlates." The study also supports the use of the MMPI as a method of ward placement of patients.—V. J. Bielaukas.

3424. Surber, Grace Pennington. (New Hampshire State Hosp.) Predicting improvement of psychiatric patients from early ward socializing ratings. *J. consult. Psychol.*, 1961, 25(5), 461.—Female patients rating high on a scale of socializing behavior achieved 6 hospital privileges significantly earlier.—E. R. Oetting.

3425. Urmer, A. H., Malek, Zena, & Wendland, L. V. (Rancho Los Amigos Hosp., Downey, Calif.) A hospital adjustment scale for chronic disease patients. *J. clin. Psychol.*, 1960, 16(4), 397-398.—In order to insure an objective evaluation of the patient's adjustment a new scale, based on the Ferguson et al. Hospital Adjustment Scale, was constructed. 2 nurses served as raters and used this scale on 42 chronic disease female patients. Later on the scale was reduced from 55 to 25 items, increasing its sensitivity. The reliability of the new scale yielded $r = .94$ for 2 raters. The 25 items are shown in a table.—V. J. Bielaukas.

3426. Vaughn, R. M. (U. Florida, Gainesville) Some limitations of the psychotherapeutic model in the hospital. *Ment. Hosp.*, 1962, 13(7), 378-380.—"... large mental hospitals, in spite of their earlier commitment to moral treatment, the historical forerunner of sociotherapy, are dominated by the psychotherapeutic orientation. Adherence to individual psychotherapy as the primary therapeutic tool may be one of the major obstacles to change in mental hospitals... the change needed in mental hospitals is not improvement in individual patient-care."—L. Gurel.

3427. Zolik, Edwin S., Des Lauriers, Austin, Graybill, John G., & Hollon, Thomas. Fulfilling the needs of "forgotten" families. *Amer. J. Orthopsychiat.*, 1962, 32(1), 176-185.—Group discussion meetings for those who have or have had a family member in a mental hospital can be staffed by trained volunteers. The meetings help relatives understand what goes on at the hospital and what mental illness is. They foster a greater acceptance of ill relatives.—R. E. Perl.

Community Services

3428. Chandler, Caroline A., Bajda, Lenore J., & Fisher, Lisolette K. (National Inst. Health) A pilot study to detect early developmental deviations in children. *Develpm. Med. child Neurol.*, 1962, 4(4), 380-386.—Aimed at "the provision of services in the child health clinics of (a) local (county) health departments for early detection and management of developmental and behavioral abnormalities" in children under 6 years of age and not yet in school, the demonstration project, which involved 43 cases, revealed the merit of a carefully planned referral system (with pre-referral training) but an often-hampering lack of appropriate adjustment facilities (kindergarten, and the like). "The brief period of studies demonstrates the value of providing psychological help for infant welfare clinics."—T. E. Newland.

3429. Cutter, Albert V., & Hallowitz, David. Different approaches to treatment of the child and parents. *Amer. J. Orthopsychiat.*, 1962, 32(1), 152-158.—7 major treatment approaches are used by the Psychiatric Clinic of Buffalo based upon the diagnosis of the parents and of the child: (a) child seen by one therapist and parents together by 2nd thera-

pist; (b) child seen individually and parents in joint interviews by one therapist; (c) mother, father and child seen jointly by one therapist; (d) child seen by one therapist, a parent seen by a 2nd therapist; (e) parents only seen in a parent treatment process with one therapist; (f) child alone seen in treatment; and (g) separate treatment of child, mother, and father involving 3 therapists. Other approaches may be used experimentally or infrequently. The criteria set forth are by no means definite but should be used as frames of reference in selecting most effective treatment approach.—R. E. Perl.

3430. Goolishian, Harold A. Family treatment approaches: II. A brief psychotherapy program for disturbed adolescents. *Amer. J. Orthopsychiat.*, 1962, 32(1), 142-148.—Multiple impact brief psychotherapy is described in which the treatment team of psychiatrist, psychologist, and social worker undertake to work with one family group over a 2 to 3 day period for 6 to 8 hours each day. It is thought that after this treatment the family, with new insights, hopes, and freedom of communication, is now in a better position to begin the task of self-rehabilitation.—R. E. Perl.

3431. Klebanoff, Lewis B., & Bindman, Arthur J. The organization and development of a community mental health program for children: A case study. *Amer. J. Orthopsychiat.*, 1962, 32(1), 119-132.—The development of a community mental health program for children in Massachusetts is described. It is hoped that this discussion of the problems that were encountered in working with individuals in schools and the community at large will assist others in their planning of community mental health services.—R. E. Perl.

3432. Lawrence, Margaret Morgan; Spanier, Irene J., & Dubow, Mildred W. An analysis of the work of the school mental health unit of a community mental health board. *Amer. J. Orthopsychiat.*, 1962, 32(1), 99-108.—A school mental health unit organized in Rockland County as a pilot project has functioned as a consultative body with the goal of assisting school staff in their work of emotional education of all the county's children.—R. E. Perl.

3433. Mullen, Frances A., & Blumenthal, Leroy H. Principles of agency-school cooperation in a program for emotionally disturbed children. *Amer. J. Orthopsychiat.*, 1962, 32(1), 109-118.—A public school education program in a residential treatment center must decide whether it is primarily an adjunct to therapy or an institution of learning. (They feel that it should be an educational institution.) It must have good teachers, a flexibility in a framework of firmness, a structured program, and extracurricular activities for the remainder of the day. The educational program provided by the Chicago public schools for the residential program operated by the Jewish Children's Bureau is described.—R. E. Perl.

3434. Reidy, Joseph J. Family treatment approaches: I. An approach to family-centered treatment in a state institution. *Amer. J. Orthopsychiat.*, 1962, 32(1), 133-142.—A family-centered treatment is described as practiced at the Esther Loring Richards Children Center. Unique are the facts that referring agencies are required to remain active on the case

while the child is in the institution, and parents are required to take care of their child at home each weekend. Treatment is focused on the adjustment of the child in his family. The reasoning is that since the child was accepted not because he was emotionally ill, but because he was emotionally ill to the degree that he could no longer remain in the community, the Center should help the child become well enough to return to the community. Further help would, of course be needed but this the community would provide, case-work, outpatient therapy, etc.—R. E. Perl.

3435. Smith, Emily A., Ricketts, Betty M., & Smith, Sarah H. The recommendations for child placement by a psychiatric clinic. *Amer. J. Orthopsychiat.*, 1962, 32(1), 42-52.—In addition to the usual child guidance clinic study, 4 other areas must be discussed when a child guidance clinic is considering whether placement is indicated: (a) meaning of separation to child and family; (b) causes of the immediate breakdown of family functioning; (c) ability of family to handle trauma other than separation, such as increased feelings of guilt and inadequacy; and (d) use of child's symptoms in the family balance. A family with a child who may be placed requires many services from the clinic including a careful matching of the needs of the family and child with the available treatment and placement facilities. Discussion by Alan O. Ross.—R. E. Perl.

3436. Tisza, Veronica B., Lewis, Melvin, & Green, Morris. Management of the parent in pediatric practice. Workshop, 1960. *Amer. J. Orthopsychiat.*, 1962, 32(1), 53-73.—The management of the parents of the chronically ill child is discussed by Tisza who outlines the shock, the grief, the denial, and the guilt of parents who find they have a permanently damaged child. Parents can arrive at an appropriate adjustment if they can be helped to give up pre-illness goals and fantasies, work through their grief over the loss, and accept altered goals realistically. In discussing the management of parents of acutely ill children in the hospital, Lewis demonstrates that individual interviews, ward group meetings for mothers, and joint meetings between parent, child, and pediatrician, and either social worker, nurse, or child psychiatrist are effective means of dispelling misunderstandings and promoting feelings of mutual trust. Discussing pediatrics and the ambulatory patient, Green emphasizes the team approach.—R. E. Perl.

3437. Umbarger, Carter C., Dalsimer, James S., Morrison, Andrew P., & Breggin, Peter R. College students in a mental hospital. New York: Grune & Stratton, 1962. xix, 168 p. \$5.75.—A report on the development and growth of a student volunteer program (Harvard-Radcliffe) to serve the needs of the mentally ill at the Metropolitan State Hospital, Waltham, Massachusetts. Written by 4 of the students who were leaders in the program during their undergraduate years. This volume stresses the relationships that were developed between patients and these young volunteers. Particular emphasis is placed upon the positive effects the program had upon the therapeutic climate of the patients and on the attitudes of the volunteers toward mental illness.—M. A. Seidenfeld.

3438. Van Dyke, Norma. Discomfort and hope: Their relationship to outcome of referral. *Smith Coll. Stud. soc. Wk.*, 1962, 32(3), 205-219.—After

studying the outcome of cases referred to an agency, it is concluded that "while hope is necessary in seeking help, it does not guaranty the use of it. Conversely, while discomfort did not appear sufficient to enable families to seek help, high discomfort appeared to have greater value as a predictor of follow-through." Follow-through was more strongly associated with continued discomfort than with having positive feelings towards the clinic.—G. Elias.

Case Work

3439. Frailberg, Selma. A therapeutic approach to reactive ego disturbances in children in placement. *Amer. J. Orthopsychiat.*, 1962, 32(1), 18-31.—Case material is presented to illustrate how the transference neurosis and its handling can provide the key to milieu therapy. The caseworker must help and teach the cottage parents to understand transference manifestations, allow for a period of grief or withdrawal, and handle reactions to placement. In the discussion, Catherine Berwald stresses the importance of understanding and handling problems of separation but suggests that we may be expecting performance beyond the real ability of caseworkers.—R. E. Perl.

3440. Plotnick, Harold Leslie. (Columbia U.) The relation between selected personality characteristics of social work students and accuracy in predicting the behavior of clients. *Dissert. Abstr.*, 1961, 22(4), 1259.—Abstract.

COUNSELING & GUIDANCE

3441. Creaser, William B. Enthusiasm: Prescription for successful epileptic counseling. *J. Rehabil.*, 1962, 28(3), 15-16.—A brief discussion of the contribution that can be made by an interested, emphatic, and enthusiastic counselor working with epileptic clients.—M. A. Seidenfeld.

3442. Fahs, Harold Jay. (Michigan State U.) Relationship of certain factors to successful case closure in a child guidance clinic. *Dissert. Abstr.*, 1961, 22(6), 2069-2070.—Abstract.

3443. Ford, Donald H. (Pennsylvania State U.) Group and individual counseling in modifying behavior. *Personnel Guid. J.*, 1962, 40(9), 770-773.—"The task of counseling is behavior change. A way of conceptualizing behavior and clear specification of the behaviors to be changed are essential in making decisions about the most effective procedures for producing the change."—S. Kavruck.

3444. Godin, A. De overdracht en haar oplossing in de pastorale relatie. [Transmission and its solution in pastoral relations.] *Gawein*, 1962, 10(5), 275-291.—There is no denying that some pastoral relations (spiritual guidance, moral or religious consultations) are hindered by the influence of an affectivity, the true nature of which often remains subconscious. Several sorts of evolution of this relation based on transmission are described and a practical line of conduct is sketched for the priest who is aware of this obstacle. The important difference between psychotherapeutical and pastoral use of this transmission is outlined and illustrated with 3 concrete examples.—J. A. Lücker.

3445. Lesser, William M. (State Hosp. Middletown, Conn.) The relationship between counseling

progress and empathic understanding. *J. counsel. Psychol.*, 1961, 8(4), 330-336.—Scales for Empathic Understanding and Feeling of Similarity for counselor of client were developed. Counseling progress was measured by increased correlation in self, ideal-self, Q sort. Empathy is unrelated to counseling progress. Correct awareness of similarity by counselor was related to progress.—E. R. Oetting.

3446. Deton, Donald A., & Walter, Sidney. (U. California, Los Angeles) (System Development Corp.) A factor analysis of the California Psychological Inventory and Minnesota Counseling Inventory. *Calif. J. educ. Res.*, 1962, 13(3), 126-133.—150 male and 114 female 9th graders were administered the 2 devices (order of administration not specified). Results on the 18 CPI scales and on the 9 MCI scales were analyzed. "Five factors were identified which appear relevant to counseling inventories," tentatively identified as Mental Health and Personal Efficiency, Social Confidence and Drive, and Need for Good Impression.—T. E. Newland.

3447. Missildine, W. Hugh. (Ohio State U.) The "mutual respect" approach to child guidance. *Amer. J. Dis. Children*, 1962, 104(2), 116-121.—The rationale, that family members should respect each other's unique behavior, is presented as the basis for suggestions given parents on handling typical child guidance problems. The treatment method is very short-term. Results on 97 children are "encouraging."—A. B. Warren.

3448. Patterson, C. H. (U. Illinois) A note on the construct validity of the concept of empathy. *Personnel Guid. J.*, 1962, 40(9), 803-806.—7 variables related to the concept of empathy were studied in a group of rehabilitation counselor trainees. Some evidence of construct validity was suggested. The Kerr-Speroff Test of Empathy did not correlate to any degree with the other variables. (21-item bibliogr.)—S. Kavruck.

3449. Ross, Alan O., & Lacey, Harvey M. (Pittsburgh Child Guidance Cent.) Characteristics of terminators and remainders in child guidance treatment. *J. consult. Psychol.*, 1961, 25(5), 420-424.—Families who remained in child guidance treatment had more developmental difficulty, unusual behavior, marital disharmony, and semantic disorders, than parents in concurrent treatment. Terminators had more truancy and were less likely to have a long wait before treatment. Generally, parents motivation and involvement seemed critical.—E. R. Oetting.

3450. Wall, Harvey W. (Pennsylvania State U.) A counseling program for parents of college freshmen. *Personnel Guid. J.*, 1962, 40(9), 774-778.—Parental influences are believed to play a major role in students' early formulation and development of educational and career plans. A counseling program for parents is described. Parents developed more realistic attitudes towards standards of academic achievement, more accurately appraised career interests, and expressed favorable attitudes towards the value of counseling.—S. Kavruck.

MARRIAGE & FAMILY PROBLEMS

3451. Canziani, Willy. (Hörnallee 69, Riehen/Basel, Switzerland) Zur Funktionspsychologie der Ehekonflikte. [On the functional psychology of

marital conflicts.] *Heilpadag. Werkbl.*, 1962, 31(2), 70-80.—The use of Lüscher's "structural functional psychology" model was found to contribute a great deal to the understanding of marital conflicts. The relationships and major conflicts of 200 couples in a marital counseling clinic were analysed and represented in terms of the 3-dimensional structural model. The investigator felt that this type of theoretical representation made possible prediction of both past and future courses of conflicts. He also was able to analyze the most typical behavioral and motivational patterns producing conflicts, and to delineate differences between husbands and wives in these patterns. Most frequent in the men were: artificial aggression and demands for sympathy, self-admiration, and need for contacts and self-assertion without responsibility or ties. The women's most frequent conflict-producing characteristics included: feeling sorry for themselves; wanting to be spoiled; critical, defensive assertion against expected treatment as an inferior.—D. F. Mindlin.

3452. Charny, Israel W. (Oakbourne Hosp., West Chester, Pennsylvania) Family interviews in redefining a "sick" child's role in the family problem. *Psychol. Rep.*, 1962, 10(2), 577-578.—A presentation of the view that "family therapy facilitates a redefinition of the "sick" child's difficulties as symptomatic of a family problem."—B. J. House.

3453. Coombs, Robert H. (Washington State U.) Reinforcement of values in the parental home as a factor in mate selection. *Marriage fam. Liv.*, 1962, 24(2), 155-157.—Questionnaires completed by 121 systematically selected married couples at the University of Utah indicated that these marriages were socially, racially, and socioeconomically homogeneous. Results supported the view that forces within the parental home exerted an influence toward homogeneity.—L. Shatin.

3454. Hurvitz, N. (4070 Buckingham Rd., Los Angeles, Calif.) The marital roles inventory and the measurement of marital adjustment. *J. clin. Psychol.*, 1960, 16(4), 377-380.—104 middle class couples were interviewed in their homes and the Marital Roles Inventory and the Index of Strain, both instruments devised for this study, were administered to them. The Inventory is based upon role theory and the assumption that spouses whose rank order of role performances and role expectations are similar are adjusted in marriage while spouses whose rank order of role performances and role expectations are different are not adjusted in marriage. The difference between the rank orders of a pair of spouses assigned to a role-set is the Index of Strain. Wives showed significantly lower Indices of Strain than husbands, and "significant inverse associations were found between husbands' Indices of Strain and the marital adjustment scores of the husbands and wives." Suggestions were made for modification of the MRI.—V. J. Bieliaskas.

3455. Kotlar, Sally Lee. (U. Southern California) Middle-class marital roles: Ideal and perceived in relation to adjustment in marriage. *Dissert. Abstr.*, 1961, 22(5), 1734.—Abstract.

3456. Kreitman, Norman. (Graylingwell Hosp., Chichester, Sussex, England) Mental disorder in married couples. *J. ment. Sci.*, 1962, 108(Whole

No. 455) 438-446.—New admissions from 1958 to 1960 included 25 couples of whom 21 could be studied. In 9 instances relationship of a reactive pattern was noted, while in 5 there was a mutual interaction; 1 was response to a common environmental stress. There is a tendency for people of like constitution to marry each other. Psychiatric treatment is facilitated for the 2nd spouse if the 1st to become ill is already in contact with psychiatric services.—W. L. Wilkins.

3457. Lantz, Herman R., & Snyder, Eloise C. (Southern Illinois U.) *Marriage: An examination of the man-woman relationship*. New York: Wiley, 1962. xii, 417 p. \$6.50.—"Deals with the man-woman relationship as it is found in dating, courtship, marriage, and family life among the middle class in contemporary America."—C. H. Miley.

3458. Mace, David R. Some reflections on the American family. *Marriage fam. Liv.*, 1962, 24(2), 109-112.—5 "concerns" and reflections about the American family were voiced by the President of the National Council on Family Relations: child rearing, sex education, dating patterns, marital adjustment, and divorce procedure.—L. Shatin.

3459. Ormont, Louis R. (Teachers Coll., Columbia U.) The use of group psychotherapy in the training of marriage counselors and family life educators. *Marriage fam. Liv.*, 1962, 24(2), 144-150.—The methods were described for an 80-hour course of "preventative psychotherapy" for the novice counselors.—L. Shatin.

3460. Sánchez-Hidalgo, Efraín. (U. Puerto Rico) Desorganización o reorganización del hogar? [Disorganization or reorganization of the home?] *Pedagogia, Rio Piedras*, 1960, 8(2), 7-17.—This presentation before the 1960 Convention of the Puerto Rican Institute of Family Relations is divided into the following sections: introduction; brief review of current literature; changes in authority; economic, political, and intellectual equality of women; the sharing of functions and responsibilities in the Puerto Rican home; undergoing changes in regard to discipline; the decrease of social isolation; and the achievements of public agencies in the orientation of family life.—Author abstract.

3461. Sherman, Sanford N. Family treatment approaches: III. Discussion. *Amer. J. Orthopsychiat.*, 1962, 32(1), 148-151.—Many clinical investigators are exploring concepts which place the individual in a continuum of interactional relationships within the family and the community. Goolishian reports treatment that is based on a brief but massive intervention in the role adaptational pattern of the family. But even here much of the work devolved into individual interviewing. Reidy's description of work with children in a state hospital, where an attempt was made to preserve family identity by the family taking week-end responsibility for the child and the community agency remaining active with the family while the child was hospitalized, contributes to the development of family-focused treatment procedures. Much more work is needed on "middle level" concepts which forge the link between theory and practice.—R. E. Perl.

3462. Stokes, Walter R. (Washington, D. C.) *Married love in today's world*. New York: Citadel, 1962. 160 p. \$3.95.—Written by a psychiatrist who

has specialized in marriage counseling, and to be used as a premarital guide as well as a manual for married couples. Particular emphasis is given to the physiology and psychology of sexual adjustment. Other major topics include: Personality Qualifications for Marriage, Problems of Early and Later Marriage, Children and Family Relations, and Future Trends in Marriage. (Appendices, glossary, 4 illustrations, index)—*D. G. Brown.*

3463. Tyler, Edward A., Truunmaa, Aare, & Henshaw, Patricia. (Riley Child Guidance Clinic, Indianapolis, Ind.) Family group intake by a child guidance team. *Arch. gen. Psychiat.*, 1962, 6(3), 214-218.—Based on experience with 100 cases it was found that a 15-min. to 1-hour intake interview of the whole family by a team consisting of a psychiatrist, a psychologist, and a social worker improves the feeling of responsibility of the clinician for the entire family, the objectivity of the therapist treating one of the family members later on, the establishing of confidence towards the treatment in the child and his parents, the open discussion of the psychodynamics of the family, cooperation among the therapists during later treatment, and the learning possibilities for trainees.—*L. W. Brandt.*

3464. Walter, James. (Florida State U.) A review of family research in 1959, 1960, and 1961. *Marriage fam. Liv.*, 1962, 24(2), 158-178.—An extensive list was compiled of family research publications during 1959-1961 in 29 different journals. These references were reported according to the following classification: I. Commentaries, Reviews, and Bibliographies; II. Sexual Behavior; III. Premarriage; IV. Marriage and Divorce; V. The Family; VI. Disorganization; VII. Counseling, Education, and Welfare; and VIII. The Family in Other Cultures.—*L. Shatin.*

MENTAL HEALTH & REHABILITATION

3465. Alberti, G. Teoria e prassi di una nuova disciplina: l'Ecologia umana. [Theory and practice of a new discipline: Human ecology.] *Difesa. soc.*, 1962, 41(1), 12-24.—The study of healthy and sick persons in relation to their environment can offer a significant contribution to clinical, social, and preventive medicine.—*L. L'Abate.*

3466. Anderson, Wayne, & Kuncze, Joseph. (VA Hosp., Perry Point, Md.) Stresses of discharge for the mental patient. *J. Rehabil.*, 1962, 28(3), 21-22.—An important factor in creating stress in making the transition from hospital to community by the mental patient appears to be the prolonged stay in an overly protective environment causing the patient to have greatly diminished or even loss of his skills in meeting the demands of normal community life. Through the use of a wide variety of techniques such as counseling, increased responsibility in the institutional environment, and by out-of-ward, foster-home, half-way houses, and trainee-employee work programs the patient is better prepared for these stresses before he is returned to full community life. It is pointed out that supportive and/or counseling services are also needed for those in primary relationships with the patient before he returns to the community so that less stress may be created that will react against the maintenance of mental health of the

patient when he returns home or enters a new environment.—*M. A. Seidenfeld.*

3467. Bierer, J. (Marlborough Day Hosp., London, England) Great Britain's therapeutic social clubs. *Ment. Hosp.*, 1962, 13(4), 203-207.—Although little known in the United States, 100 therapeutic social clubs have developed in England since their inception in 1938. Clubs exist for both inpatients and outpatients. Run by an elected committee of patients, they are said to be particularly useful in helping chronics to remain in the community.—*L. Gurel.*

3468. David, Henry P. (State Office Bldg., Trenton, N. J.) Notes on South Africa and the Congo: Psychology and mental health. *Welf. Reporter, Trenton*, 1962, 13, 148-157.—Based on 1961 observations, summary comments are presented on problems of psychological research in Africa; mental health facilities for children and adults in South Africa, psychiatric and clinical psychological training, and professional practice; the work of the World Health Organization in the Congo; and trends in developing mental health problems in the emerging countries of Africa South of the Sahara.—*C. M. Franks.*

3469. Litman, Theodor James. (U. Minnesota) The influence of concept of self and life orientation factors upon the rehabilitation of orthopedic patients. *Dissert. Abstr.*, 1961, 22(5), 1734-1735.—*Abstract.*

3470. Mead, Margaret. Mental health and the wider world. *Amer. J. Orthopsychiat.*, 1962, 32(1), 1-4.—Comparing the focus of the World Federation for Mental Health in 1948 and 1961 indicates that we now recognize much more fully "that the acute problems of individual identity cannot be separated from the problems of the wider identities of community and nation."—*R. E. Perl.*

3471. Tramer, M. Eine exzeptionelle pädopsychiatrische Expertise. [An unusual case of expert psychiatric opinion.] *Acta paedopsychiat.*, Basel, 1962, 29(5), 152-155.—According to expert opinion, the construction of a cemetery near a children's sanatorium would have noxious psychological effects due to the frequent encounter with funeral processions and interments.—*G. Rubin-Rabson.*

3472. Tramer, M. Zur Rolle von Anpassung und Reziprokanpassung in der Psychohygiene der Entwicklung. [The role of adaptation and reciprocal adaptation in mental hygiene.] *Acta paedopsychiat.*, Basel, 1962, 29(3), 77-82.—Adaptation is seen as a partnership, in which one becomes formed to the other for an intended purpose or at least not in opposition to it. This occurs during every phase of biological development. However, reciprocal adaptation, major or minor, also takes place. Both are necessary for mental hygiene, the former predominating.—*G. Rubin-Rabson.*

3473. World Health Organization, Expert Committee on Mental Health. Programme development in the mental health field. *WHO tech. Rep. Ser.*, 1961, No. 223. 55 p.—"The tenth report of the WHO Expert Committee on Mental Health is devoted to a review of present mental health facilities and resources and to the establishment of priorities for a mental health programme on a world-wide scale."—*J. C. Franklin.*

ABNORMAL PSYCHOLOGY

3474. Daumezon, G., Lanteroi-Laura, G. *Signification d'une sémiologie phénoménologique.* [The meaning of a phenomenological symptomatology.] *Encephale*, 1961, 50(5), 478-511.—Phenomenology should not be conceived as a psychiatric theory but, if it has any significance to psychiatry, it is as an attempt to deepen and renew the clinical bases of psychiatry. It is not even a method, but more of an attitude—an attitude of complete openness to descriptive experience, and to the formulation of problems as problems of meaning. Symptomatology cannot be complete as long as it limits itself to physiological indications. The art is to discern that which characterizes each fundamental type of illness and that which derives from the illness itself rather than from the methodological preoccupations of the psychiatrist. Examples from the works of Binswanger and Minikowski are discussed.—W. W. Meissner.

3475. Kenyon, F. E. (Maudsley Hosp., London, England) *Emergencies in child psychiatry.* *J. ment. Sci.*, 1962, 108(Whole No. 455), 419-426.—Childhood equivalents of the severe depression and the suicidal or homicidal risk were sought, as these are infrequently found in children. For 43 emergency admissions for a 2 year period, fits of depression were found in 16% and suicidal threat in 11.6%. Difficulty in school typified 44%. More careful study of what really constitutes an emergency in child psychiatry is needed.—W. L. Wilkins.

3476. Lowe, Carrington Marshall. (Ohio State U.) *A study of the nature of guilt in psychopathology.* *Dissert. Abstr.*, 1961, 22(3), 909.—*Abstract.*

3477. Morozov, G. V., & Romasenko, V. A. *Nevropatologiya i psikhiatriya.* [Neuropathology and psychiatry.] (Rev. ed.) Moscow, USSR: Medgiz, 1962. 263 p.—This textbook, intended for nurses and other "secondary medical personnel," presents the "principles of Soviet psychiatry and neuropathology."—I. D. London.

3478. Rushworth, Geoffrey. (Churchill Hosp., Oxford, England) *Observations on blink reflexes.* *J. Neurol. Neurosurg. Psychiat.*, 1962, 25(2), 93-108.—Blink reflexes to a bright flash of light, loud click, electrical stimulation of the supraorbital nerve, corneal stimulation, and glabella tap were studied in normal Ss and patients with Bell's palsy, optic atrophy and hemianopia, lesions of the 5th and 8th nerve, paralysis agitans, hemiparesis, tetanus, and a decerebrate child. Depending on the stimulus, several components with different latencies and of different origins can be distinguished. (20 fig., 34-item bibliogr.)—M. L. Simmel.

3479. Tolland, G. A. *Les troubles de l'orientation temporelle dans le syndrome amnésique.* [Difficulties of temporal orientation in amnesia.] *Encephale*, 1961, 50(5), 450-470.—Van der Horst's theory of amnesia derives the symptoms from a disorganization of the apprehension of the passage of time and an incapacity to connect temporal signs to experiences. Experimental and clinical evidence from chronic Korsakoff patients does not support hypotheses derived from the theory. An alternate theory is proposed, according to which the amnesic symptoms reflect a more general deficiency in the encounter between organism and milieu. Disturbances in the tem-

poral system of mnemonic organization are only a part of a large group of disturbances resulting from the basic deficiency.—W. W. Meissner.

PHYSICAL HANDICAPS

3480. Kaufmann, Marie-Theres. (Pro Infirmis, Webergasse 5, St. Gallen, Switzerland) *Seelische Nöte der Behinderten und Gebrechlichen.* [Emotional suffering of the handicapped and the infirm.] *Heilpädagog. Werkbl.*, 1962, 31(2), 50-57.—Emotional difficulties of the handicapped may be traced to 3 problem areas: dependency, social exclusion, and idleness. Dependency in adults can usually be only ameliorated through understanding help. In handicapped children, however, there should be deliberate training toward maximum self-reliance. In order to avoid or minimize social exclusion, the right type of attitude on the part of the other family members is essential. Special schools for handicapped children often facilitate later ease in entering into normal social activities. Deviation from the "normal" population, whether apparent or real, must be studied for each individual case in order to deal with it adequately. Idleness not only deprives the person of economic support and independence, it undermines his sense of purpose, personal satisfactions gained from leading a useful existence, and the feeling of being valued by others.—D. F. Mindlin.

3481. Rusalem, Herbert. *An experiment in the use of correspondence instruction with severely disabled adults.* *Cerebral Palsy Rev.*, 1962, 23(5), 17-18, 20.—15 individuals undertook correspondence study under the supervision of the (New York) Federation of the Handicapped. The federation provided facilities for group study, consultation and guidance, and secretarial assistance. Not only was readiness for education per se a major factor, but the needs of the individuals for the attending (but soon dominating) socialization became a major focus of concern. The importance of a clear delineation between the 2 kinds of needs is stressed.—T. E. Newland.

3482. Smithells, R. W. (U. Liverpool) *The Liverpool congenital abnormalities registry.* *Dev. Med. child Neurol.*, 1962, 4(3), 320-324.—"A description is given of the inception and formation of the Registry. From January 1, 1960, this has recorded all malformations in live and stillborn babies born in the city of Liverpool and the adjoining County Borough of Bootle."—T. E. Newland.

Blindness

3483. Illyés, Sándor, & Szakács, Ferenc. (Hungarian Acad. Science) *A csoportosulás tényezői vak gyermekek közösségében.* [Factors of group formation in a community of blind children.] *Psichol. Tanulmányok*, 1958, 1, 165-173.—Through interrogation and nonparticipant observation the following primary factors were found to be involved in group formation of blind children: (a) sex, (b) level of mental development, (c) degree of vision, (d) physical togetherness (sitting on the same bench, etc.). It was also found that the children select as an ideal "a child whose way of life and thought conforms to the peculiar world of the blind."—(Russian & English summaries)—E. Friedman.

3484. Schwartz, Ralph J., & Steer, M. D. (U. Wichita) *Vocal responses to delayed auditory*

feedback in congenitally blind adults. *J. speech hear. Res.*, 1962, 5(3), 228-236.—7 young blind adults and 10 with normal vision, all normal speakers, heard one story and read another then retold the stories impromptu under synchronous feedback and 3 conditions of delay, .14, .18, and .22 secs. Blind individuals show a reduced phonation time ratio under all conditions, and tend to have lower indices of major sound pressure level (SPL) shifts for synchronous feedback, but both groups show a reduction in this index under delay. No appreciable differences were found for mean SPL, standard deviation of mean SPL, acceptable listening levels, carryover effects, or modality of presentation of stimulus material.—M. F. Palmer.

Deafness

3485. Berg, Frederick Sven. (Southern Illinois U.) **Serial learning: An approach to a rationale for auditory training.** *Dissert. Abstr.*, 1961, 22(3), 922.—Abstract.

3486. Briggs, Beverly M., & Davis, George D. (Hearing & Speech Cent., Columbus, O.) **Rationale for the early training of deaf children.** *J. Rehabil.*, 1962, 28(3), 12-14.—The values to be derived from the early training of the deaf child and his parents are discussed. An early introduction of the parent to the nature of the handicap of his child leads to prevention of faulty habit patterns. The child is encouraged to develop lip-reading and speech at the same age when nondeaf children are beginning to speak. Thus opportunity is provided to use the impetus for spontaneous vocalization and he thus acquires more normal speech characteristics. The importance of auditory training and the early use of hearing aids is stressed as a basis for further improving the chances of his attaining more normal progress in school and later development.—M. A. Seidenfeld.

3487. Hanley, Clair N., & Gaddie, Barbara G. (U. Washington) **The use of single frequency audiometry in the screening of school children.** *J. speech hear. Disord.*, 1962, 27(3), 258-264.—A group of 228 2nd and 4th graders was used to investigate the use of 4000 cps frequency as an audiometric screening test at 15 db. Immediately following, each child was given an individual pure tone threshold test in a sound-treated room. The single frequency test correctly classified 90% of the hard-of-hearing ears and overselected 2.8% of the normal ears.—M. F. Palmer.

3488. Kodman, Frank, Jr.; Waters, Jerry E., & Whipple, Clifford I. (U. Kentucky) **Psychometric appraisal of deaf children using the Columbia Mental Maturity Scale.** *J. speech hear. Disord.*, 1962, 27(3), 275-279.—207 deaf children were administered 1 or more of the following tests: the Revised Beta, the Columbia Mental Maturity Scale and the nonverbal Otis Alpha, Form B. Intercorrelations were positive and moderate in magnitude but were considered to be less than desirable. Obtained IQ's ranged from 40-135 with a mean of approximately 88.0. The CMMS can be used as a screening device with deaf children who appear to be functioning at a mental age of 6 or above, but other instruments should also be considered in the test battery.—M. F. Palmer.

3489. Martsinovskaya, E. N. (Inst. Defectology, APN RSFSR, Moscow) **Vzaimodeistvie artikulatsionnykh i pal'tsevyykh kinesteziy u glukhikh detei.** [Interaction of articulatory and dactyl kinesis in deaf children.] *Vop. Psikh.*, 1962, No. 1, 101-112.—The occurrence of innervation to the finger and lip muscles was measured by an electrophysiological technique. The investigation was aimed at determining the intercorrelations between the 2 muscle areas. When deaf Ss were asked to repeat their family name, muscle potentials were recorded in both the fingers and lips. However, depending on the nature of the task given a S (e.g., listing the months of the year) potentials in the finger muscles might be absent. Occasionally potentials in the fingers were present and those in the lips sharply reduced. Deaf children instructed to inhibit finger or lip kinesis while performing some mental task were only partially successful. Voluntary inhibition was more successful in the case of finger innervation, than in the case of lip innervation. The dominance of the articulatory system as opposed to the finger system was indexed by the latency of muscle potential. With hearing people who had learned the dactyl language of the deaf, the articulatory system dominated. With the deaf children the articulatory system dominated in about 50% of the cases. Finally there was little change with age in the frequency of occurrence of lip and finger muscle potentials.—H. Pick.

3490. Michal-Smith, Harold. (New York Medical Coll.) **Sensory deprivation: A new approach to emotional problems of the child with a hearing loss.** *J. speech hear. Disord.*, 1962, 27(3), 290-294.—New experiments in sensory deprivation present a new psychology for studying and comprehending the deaf and others who suffer from such isolation.—M. F. Palmer.

3491. Oléron, Pierre. (Faculté Lettres & Sciences Humaines, Paris, France) **Le développement des réponses a la relation identité-dissémbance: Ses rapports avec le langage.** [The development of responses of the identity-dissimilarity relation with reference to language.] *Psychol. Franc.*, 1962, 7(1), 4-16.—38 deaf and 38 normal children aged 4 to 7 years and of average intelligence were presented with pairs of stimulus-discrimination objects, some of them identical and some different with respect to shape, object, color, weight, size, or speed. Correct responses were rewarded with candy. The normals were questioned regarding the principles used in the discriminations. The results showed success in both groups from age 5 up with the deaf children only slightly inferior to the normals. This discrepancy was somewhat greater in some series. Verbal expression of the principles involved improved with age.—C. J. Adkins.

3492. Palate, E. L. (Alberta School Deaf) **The measurement of sentence structure of deaf children.** *Alberta J. educ. Res.*, 1962, 8(1), 39-44.—"Scrambled Sentences are better predictors of the language achievement of the deaf than the California Mechanics of English and Grammar subtest." This conclusion is based on a study of 50 students at the Alberta School for the Deaf. The 2 criteria of language achievement were a subjective criterion (total impression on 5 teachers of 50 sequential words of each student's composition) and an objective criterion (number and variety of clauses and participial

and infinitive constructions in student's compositions). Correlations between language achievement criteria and the Raven Progressive Matrices (1938) were .44 and .38, respectively.—G. M. Della-Piana.

3493. Schuknecht, H. F. (Massachusetts Eye and Ear Infirmary, Boston) **Stapedectomy operation for hearing loss from otosclerosis.** *Sound*, 1962, 1(4), 16-21.—The disease of otosclerosis is reviewed and various types of middle ear surgery described. Emphasis is on recently developed surgical procedures such as removal of the stapes and the substitution of a prosthesis.—A. M. Small, Jr.

3494. Thompson, Gary, & Hoel, Richard. (Houston Speech & Hearing Clinic) **"Flat" sensorineural hearing loss and PB scores.** *J. speech hear. Disord.*, 1962, 27(3), 284-285.—Adults seen at the Houston Speech and Hearing Center over a 3-year period with "flat" sensorineural hearing loss in at least 1 ear are reported. There are no significant speech discrimination impairments accompanying the mild losses.—M. F. Palmer.

3495. Tiffany, Ronald, & Kates, Solis L. (Hartford VA Mental Hygiene Clinic) **Concept attainment and lipreading ability among deaf adolescents.** *J. speech hear. Disord.*, 1962, 27(3), 265-274.—On the basis of their scores on 2 lipreading tests, 12 students were assigned to a "good" lipreading group and 12 to a "poor" lipreading group, matched on sex, degree of deafness, intelligence, length of schooling, socio-economic background, and age. They were then required to solve conceptualization problems. Poor lipreaders required more card choices, more time, and tended to make more redundant choices before obtaining correct concepts.—M. F. Palmer.

SPEECH DEFECTS

3496. Arnold, Godfrey E. (New York Eye & Ear Infirmary) **Vocal nodules and polyps: Laryngeal tissue reaction to habitual hyperkinetic dysphonia.** *J. speech hear. Disord.*, 1962, 27(3), 205-217.—Vocal nodules are benign growths at the medial margin of both vocal cords. Polyps represent a more advanced stage. The nodules have a seat of predilection at the junction of the anterior and middle third of the entire cord length. They always result from faulty or excessive vocal function and are secondary organic signs of primary psycho-somatic or socio-economic disorders. Vocal nodules represent a local tissue reaction to the mental strain imposed by inappropriate emotional adjustment to the demands made by society.—M. F. Palmer.

3497. Canfield, William. (Columbia U.) **Dysphonia associated with unilateral vocal cord paralysis: A case study.** *J. speech hear. Disord.*, 1962, 27(3), 280-284.—A report of the voice and speech characteristics of dysphonia associated with vocal cord paralysis in the case of a 59-year-old woman who had had 2 throat surgeries resulting in paralysis of the right vocal fold. Her voice was weak, hoarse, and low pitched. Fullest phonation occurred on post-vocalic nasal sounds. She made herself understood primarily by trying to use an over-precise sharp articulation. Use of control of exhalation in tone support, ear training, and other devices resulted in her regaining the use of her voice to a remarkable degree.—M. F. Palmer.

3498. Dickson, Stanley. (State University Coll., Buffalo) **Differences between children who spontaneously outgrow and children who retain functional articulation errors.** *J. speech hear. Res.*, 1962, 5(3), 263-271.—60 children, 30 of whom had had functional articulatory disorders but had spontaneously outgrown them were compared to 30 who had had functional articulatory disorders and had retained some of them. Children who retain speech errors are inferior in gross motor tasks to those who outgrow them. Speech sound discrimination ability did not differentiate the 2 groups. Mothers of children who retain speech errors tend toward "emotional immaturity and instability" more than do mothers of children who outgrow such errors.—M. F. Palmer.

3499. Flosdorf, P. (Würzburg, Germany) **Über das Stottern.** [On stuttering.] *Jb. Psychol Psychother. med Anthropol.*, 1960, 7(1-2), 126-174.—This article represents an extensive psychological study of stuttering in children and adolescents. The author describes various theories concerning stuttering, discusses the developmental aspects of stuttering, evaluates the sexual differences in stuttering, and presents some sociological implications concerning this behavior. The study of 131 Ss afflicted with stuttering shows that 67% of them began to stutter at the age of 3-4, 30% 6-7, and 3% 9-12 years of age. Following up these statistics an attempt is made to correlate stuttering with various concepts of depth psychology. Suggestions were made for treatment of stuttering also. (87 ref.)—V. J. Bieliauskas.

3500. Freeman, Gerald G., & Lukens, Jean. (Oakland County Board Education, Pontiac, Mich.) **A speech and language program for educable mentally handicapped children.** *J. speech hear. Disord.*, 1962, 27(3), 285-287.—A description of the speech and language program for educable mentally handicapped children in the Oakland County, Michigan, schools. The speech correctionists must examine each case and treat specifically the speech or language deficiencies not attributable to depressed intellectual function.—M. F. Palmer.

3501. Gardner, Warren H., Hill, Sandra D., & Carano, Hilda N. (Cleveland Clinic Found.) **Esophageal speech for a twelve-year-old boy: A case report.** *J. speech hear. Disord.*, 1962, 27(3), 227-231.—A 12-year-old boy was laryngectomized by a shotgun blast. Between sessions of plastic and dental surgery, speech therapists and rehabilitation consultants, using the injection technique, worked with the visiting teacher to help the patient develop tongue and lip mobility. Spontaneous esophageal speech was brought about even before the boy had heard esophageal speech from another person. Less than 1 year later he demonstrated excellent conversational ability and a full octave pitch range.—M. F. Palmer.

3502. Grewel, F. **Taalgebruikstoornissen.** [Disturbances in use of language.] *Garwein*, 1962, 10(4), 204-216.—Different sorts of aphasia and agaphia present much more complicated symptoms than the mere disturbance of formal linguistic structures. Numerous interesting cases, e.g., palilalia and echolalia are found in pathology while many psychoses characterized by strong pathological language-symptoms and simultaneously occurring disturbances in the semiotic systems are being studied.—J. A. Lückner.

3503. Kurshev, V. A. (Chair of Nervous Diseases, Volgograd Medical Inst., USSR) *O vneshnem tormozhenii i rastormazhivanii vo vzaimodeistvii signal'nykh sistem u zaikailushchikhsia.* [External inhibition and disinhibition in the interaction of signaling systems of stutterers.] *Zh. vyssh. nervn. deiatel.*, 1961, 11(6), 985-990.—16 stutterers (age 15-39; 10 males and 6 females) were instructed to react with verbal and motor responses to drawings and to written and pronounced words. Using the Ivanov-Smolenskii method a series of conditioned responses, differential responses, inhibitory and disinhibitory responses was formed. Some differences were found between severe and mild stutterers. In both groups, the disinhibition was stronger than the inhibition. In severe stutterers there is a predominance of inhibitory and disinhibitory responses with words difficult to pronounce acting as stronger stimuli. In the milder group a summation effect takes place in the sense of an influence exerted by the verbal reaction upon the motor response.—A. Cuk.
3504. Lane, H. L., & Moore, D. J. (U. Michigan) *Reconditioning a consonant discrimination in an aphasic: An experimental case history.* *J. speech hear. Disord.*, 1962, 27(3), 232-243.—A technique for the synthesis of speech was employed to investigate the acquisition of a consonant discrimination by an aphasic S. A change in 10-20 msec. in the relative onset times of the 1st and 2nd formants is sufficient in normals to shift the frequency labelling responses from 75% /do/ to 75% /to/. With the aphasic S there was only a very slight tendency for this to occur. The 2 stimuli from the extremes of the continuum were used to condition a discrimination. A dramatic change in the discriminative responses was then observed.—M. F. Palmer.
3505. Morris, Hughlett L., & Smith, Jeanne K. (U. Iowa) *A multiple approach for evaluating velopharyngeal competency.* *J. speech hear. Disord.*, 1962, 27(3), 218-226.—Velopharyngeal closures are multidimensional in character. Assessing a speaker's performance in nonspeech activities such as oral breath pressures and radiographic films are means which provide pertinent information to complement the results of articulation tests. 5 illustrative cases are presented.—M. F. Palmer.
3506. Newman, John B. (Queens Coll.) *The categorization of disorders of speech, language and communication.* *J. speech hear. Disord.*, 1962, 27(3), 287-289.—The author urges the concept of speech as the matrix of the therapist, since it is the item in language and communication that can be modified. The word "speech" is a generative and generalizing word in this professional field.—M. F. Palmer.
3507. Tate, Merle W., & Cullinan, Walter L. (U. Pennsylvania) *Measurement of consistency of stuttering.* *J. speech hear. Res.*, 1962, 5(3), 272-283.—Several measures of consistency of stuttering were used to investigate experimental data derived from the number of words stuttered on each of 5 successive readings of a 180-word passage and the number of words stuttered from zero to five times by each of 30 Ss. The scores for consistency were for percentage, consistency ratio, weighted percentage, maximum difference, and normal deviate measures. The percentage measure was unsatisfactory, and the consistency ratio measure appeared to be less satisfactory than weighted percentage, maximum difference, and normal deviate measures.—M. F. Palmer.
3508. Wingate, M. E. (U. Washington) *Evaluation and stuttering: II. Environmental stress and critical appraisal of speech.* *J. speech hear. Disord.*, 1962, 27(3), 244-257.—Review of the literature in regard to general conditions of stress in both the immediate and broader cultural environment on speech fluency and the presence of a label for stuttering. There is some suggestion of a positive correlation between stuttering and general conditions of stress, but largely in respect to our own culture. Evidence regarding the other 2 factors of stress on speech fluency and labelling is either highly questionable or negative.—M. F. Palmer.
3509. Young, Martin A., & Prather, Elizabeth Moodie. (Cleveland Hearing and Speech Cent.) *Measuring severity of stuttering using short segments of speech.* *J. speech hear. Res.*, 1962, 5(3), 256-262.—50 male college stutterers performed a speaking task which required spontaneous talking about a future vocation. 3 test tapes were constructed and labeled as total samples, randomly-selected segments, and consistently-selected segments. 20 second segments of speech are comparable to ratings of total samples when used for judgments of stuttering severity.—M. F. Palmer.

NEUROLOGICAL DISORDERS

3510. Adams, C. W. M. (Guy's Hosp. Medical School, London, England) *Histochemical aspects of myelination and demyelination.* *Develpm. Med. child Neurol.*, 1962, 4(4), 393-404.—"The histochemistry of normal myelination, cerebral lipidoses and demyelination are discussed, with the aim that greater knowledge of the cytochemical process of demyelination may suggest in what direction the aetiological agents for these diseases should be sought." (55-item bibliogr.)—T. E. Newland.
3511. Bookspun, Arnold. (Boston U.) *Hospitality in children with idiopathic epilepsy.* *Dissert. Abstr.*, 1961, 22(4), 1248.—Abstract.
3512. Clements, Sam D., & Peters, John E. (U. Arkansas Medical Cent.) *Minimal brain dysfunction in the school-age child: Diagnosis and treatment.* *Arch. gen. Psychiat.*, 1962, 6(3), 185-197.—A plan for careful history taking, specialized neurological examination, rigorously defined psychological examination and EEG, none of which must be omitted, and a treatment plan are outlined. (43 ref.)—L. W. Brandt.
3513. Cohen, Albert. (Jewish Vocational Service, Detroit, Mich.) *Personality aspects of multiple sclerosis.* *J. Rehabil.*, 1962, 28(3), 18-20; 50-51.—Cohen reviews the literature on the personality aspects of multiple sclerosis for the decade, 1950-61. The 29 references he reports appear to indicate to emphasize that there is no distinctive personality complex associated specifically with multiple sclerosis although certain characteristics such as high dependency needs, depression, anxiety, preoccupation with self, and insecurity are frequently found in this disease as they are in other catastrophic disability. Some indication of the influence of emotional factors and tension producing events in induc-

ing exacerbations of physical symptoms or remissions is indicated.—*M. A. Seidenfeld.*

3514. **Doran, P. A., & Guthkelch, A. N.** (Royal Manchester Children's Hosp.) **The epidemiology of spina bifida.** *Develpm. Med. child Neurol.*, 1962, 4(3), 307-309.—The possibility that spina bifida may be a recessive trait is explored.—*T. E. Newland.*

3515. **Driver, M. V.** (Maudsley Hosp., London, England) **A study of photoconvulsive threshold.** *EEG clin. Neurophysiol.*, 1962, 14, 359-367.—Some of the parameters of photoconvulsive threshold were studied in 77 patients with epilepsy, schizophrenia, or depressive illness. No important relationship between threshold and sex, age, body type, blood sugar, and haemoglobin was found. Body size was an important factor in determining amount of drug needed to reach threshold but the relationship between any expression of body size (e.g., weight, surface area, blood volume) were too low to be useful by themselves. A more refined end-point was suggested as a possibly more satisfactory index.—*L. C. Johnson.*

3516. **Hovey, H. B.** (VA Hosp., Salt Lake City) **Réponses des épileptiques aux tests psychologiques.** [The response of epileptics to psychological tests.] *Rev. Psychol. appl.*, 1961, 11(4), 293-296.—Studies are cited in which temporary reductions in intellectual functioning during tests in the part of epileptic Ss were noted. In a study involving 3 groups: (epileptics, brain-damaged, and psychiatric patients) the epileptics had a tendency to make non-pertinent remarks, followed by spontaneous responses to subsequent items. In the memory of drawings, one figure might appear less good than for the drawing in its entirety. Generalizing, transitory, and unexpected failures in the habitual efficiency of Ss is a sign of epilepsy or of a related condition. These transitory inefficiencies could be subclinical manifestations.—*W. W. Wattenberg.*

3517. **Ingram, T. T. S., & Naughton, J. A.** (U. Edinburgh) **Paediatric and psychological aspects of cerebral palsy associated with hydrocephalus.** *Develpm. Med. child Neurol.*, 1962, 4(3), 287-292.—Clinical findings in 16 patients and psychological findings in 20 patients (15 of them in common) are reported. Ages at first examination ranged from 3 to 15 years on 18 of the 20 patients, and some were observed in day and residential training situations. 10% were normal, and 40% were in the "ineducable" category. Vocabulary level tended to be above the general psychometric level, this being particularly true with respect to females. The 3 who were old enough to be evaluated as adults showed "more or less serious abnormality of behavior." Early treatment intervention should be considered seriously for prevention or mitigation.—*T. E. Newland.*

3518. **Lansdell, H.** (National Inst. Neurological Diseases & Blindness) **Laterality of verbal intelligence in the brain.** *Science*, 135 (Whole No. 3507), 922-923.—Patients with left-hemisphere epilepsy and their speech mechanism abnormally located in the right cerebral hemisphere are more similar in their verbal ability to ordinary patients with right-hemisphere epilepsy than to those with left-hemisphere epilepsy.—*Journal abstract.*

3519. **Rogina, V., & Serafetinides, E. A.** (Maudsley Hosp., London, England) **Epilepsy and behaviour disorder in patients with generalised spike**

and wave complexes. *EEG clin. Neurophysiol.*, 1962, 14, 376-382.—A series of 97 cases showing bilateral synchronous spike and wave (S-W) complexes during "resting" EEG conditions or elicited on overbreathing or photic stimulation was studied in relation to seizure pattern, presence of other EEG abnormalities, topographical distribution of the S-W complexes, signs of brain damage, and presence of behaviour disorder. In 82 cases S-W complexes appeared in resting EEG or on overbreathing alone whereas in 15 cases the discharges were elicited on photic stimulation alone. Epilepsy was by far the most frequent diagnosis in the former (74 out of 82) but more than half the cases in the latter group were patients with behaviour disorder or psychosis (8 out of 15), without clinical epilepsy.—*Author abstract.*

3520. **Sherwood, S. L.** **Relation of behavior to cerebral ventricular fluid protein levels.** *Arch. Neurol., Chicago*, 1962, 7(2), 146-159.—Ss were 60 cases referred for surgical treatment of behavior disorders. The amount of activity and reactivity of the patients was described using an Index of Excitement and Excitability (IEE) which was based upon clinical notes taken at different times by different observers. "A considerable degree of consistency" was found in that patients with a high IEE showed a raised ventricular fluid protein level; those with a low IEE showed a low-normal ventricular protein level. This relationship, however, was found not to hold true in all cases, especially where a gross neurological lesion, such as a tumor, was present.—*H. D. Arbitman.*

3521. **Small, J. G., Milstein, V., & Stevens, J. R.** **Are psychomotor epileptics different?** *Arch. Neurol., Chicago*, 1962, 7(3), 187-194.—"Specifically, we ask are patients with psychomotor epilepsy more likely to suffer psychopathologic disturbances than patients with equally severe convulsive disorders clearly nonpsychomotor in type?" Ss were 25 psychomotor epileptic patients, and 25 patients with "centrencephalic" seizures; Ss were equated for degree of focal and background EEG disturbance, clinical and social impairment, and general intelligence. Psychiatric interviews and psychological testing (WAIS, MMPI, Rapaport Word Association Test, Taylor Anxiety scale, and Wechsler Memory scale) did not differentiate patients with psychomotor epilepsy from patients with other kinds of convulsive disorders. "Indeed, a high and equal incidence of psychological difficulties appear in both groups."—*H. D. Arbitman.*

3522. **Tizard, Barbara.** (Inst. Psychiatry, Maudsley Hosp., London, England) **The personality of epileptics: A discussion of the evidence.** *Psychol. Bull.*, 1962, 59(3), 196-210.—"Five basic theories about the personality of epileptics are outlined, and the extent to which they have been affirmed or refuted by clinical and psychological investigations is considered. The findings of studies which have used the Rorschach test are shown to be contradictory, and the inadequacies of this test for research purposes are pointed out. It is argued that progress in this field depends on a recognition and study of the complex environmental and pathophysiological factors involved, and on the development of reliable criteria with which to classify epileptics."—*W. J. Meyer.*

3523. **Viktorov, I. T.** (Chair of Psychiatry, Leningrad Pediatric Medical Inst., USSR) **Oso-**
bennosti vysshēi nervnoi deiatel'nosti u detei pri

epilepsii. [Characteristics of the higher nervous activity in epileptic children.] *Zh. vyssh. nervn. Delatel.*, 1961, 11(6), 999-1004.—Ss were 10 epileptic boys (age 12-14) with different degrees of mental deterioration. Conditioned reflexes to red light were established by means of Ivanov-Smolenskii's method. It was found: (a) The greater the mental "degradation" of an epileptic child, the slower is the formation of CR. (b) With the increase of mental degradation the intensity of the excitatory process in the cerebral cortex declines while the duration of the excitation increases. (c) In epileptics with severe mental deterioration the motor CR bear a character of concreteness and preselection.—*A. Cuk.*

Brain Damage

3524. **Avakian, S. A.** (Fordham U.) **The applicability of the Hunt-Minnesota Test for organic brain damage to children between the ages of ten and sixteen.** *J. clin. Psychol.*, 1961, 17(1), 45-49.—2 groups of 18 boys each matched for intelligence, age, and grade were used as Ss. The experimental groups was selected in using the criteria of "had injury," and the control group, no "had injury" in their personal history. They were administered the Hunt-Minnesota Test for Organic Brain Damage. Findings provided strong support for the usability of the Hunt-Minnesota Test for Organic Brain Damage for diagnosis of deterioration in this age range.—*V. J. Bielianskas.*

3525. **Ayres, Anna Jean.** (U. Southern California) **Space perception and visualization in cerebral dysfunction.** *Dissert. Abstr.*, 1961, 22(5), 1708-1709.—*Abstract.*

3526. **Barsch, Ray H.** (Jewish Vocational Service, Milwaukee) **Evaluating the organic child: The functional organizational scale.** *J. genet. Psychol.*, 1962, 100(2), 345-354.—Extensive clinical experience in evaluating brain damaged children in a private agency setting has resulted in the formulation of a Functional Organizational Scale. The scale is composed of 30 items. The functions are those which may be measured by a variety of existing psychological tests yielding an age score. Observative functions are rated according to observational studies and reports to be found in the general literature in child development. Deductive items are rated after parental interviews, counseling, and sustained observation of the child. 3 terms have been employed to differentiate functioning levels: organized, immature, and disorganized. Relating total clinical findings to this scale enables the clinician to classify the child in terms of major impediments to learning. The 4 classifications are: Behavior, Symbolic, Immature, and Sensorimotor. Major emphasis is placed upon the concepts of organization of response patterns and learnability as the 2 crucial factors in the evaluation of organic children.—*Author abstract.*

3527. **Benton, A. L., & Spreen, O.** (State U. Iowa) **Zur Simulation intellektueller Leistungsdefekte im Benton-Test.** [On the simulation of intellectual achievement defects on the Benton-test.] *Psychol. Beitr.*, 1962, 7(1), 147-150.—An "experimental" simulation study was conducted in order to assess the influence of simulating behavior on the Benton test. Results of deliberately simulating Ss were compared with the results of brain-injured pa-

tients. Significantly different results between both groups were found and were discussed. (English & French summaries)—*H. J. Priester.*

3528. **Beyn, E. S., & Knyazeva, G. R.** (Inst. Neurology, USSR Acad. Medical Sciences, Moscow) **The problem of prosopagnosia.** *J. Neurol. Neurosurg. Psychiat.*, 1962, 25(2), 154-158.—"A case of severe prosopagnosia (defect in physiognomic recognition) is reported in a case of bilateral occipital lobe lesion due to cerebrovascular disease. This defect was associated with some degree of agnosia for objects, and more especially for colours, and with marked failure in recognition of buildings, streets, and places. Visual memory exhibited a comparable defect in the reproduction of objects in their specific, though not in their generic, aspects. Intelligence and personality were well preserved. An analysis of the disability together with a course of rehabilitation was attempted. It is concluded that 'agnosia for faces and places' reflects failure in recognition at its most highly specific and individual level."—*M. L. Simmel.*

3529. **Costa, L. D.** (Albert Einstein Coll. Medicine) **Visual reaction time of patients with cerebral disease as a function of length and constancy of preparatory interval.** *Percept. mot. skills*, 1962, 14(3), 391-397.—8 brain damaged and 6 control Ss took part in an experiment on the effects of PI on visual RT. Control Ss had significantly lower RT's when presented with stimuli after constant PIs of short duration. No relationship obtained between PI and RT for brain-damaged Ss. Neither group showed change in RT at any PI as a function of practice over 180 trials. For all PI conditions singly and combined, the RTs of brain-damaged Ss are significantly slower than the RTs of control Ss.—*W. H. Guertin.*

3530. **Dils, C. W.** (Longview State Hosp., Cincinnati, O.) **The Colored Progressive Matrices as an indicator of brain damage.** *J. clin. Psychol.*, 1960, 16(4), 414-416.—The book form of the Colored Progressive Matrices was administered to 2 groups of 60 hospitalized Ss at a mental hospital. Both groups were matched or compared for age, education, sex, and length of hospitalization. 1 group of patients consisted of Ss without brain damage, the other with brain damage. "A special scoring system was devised that correctly identified 82% of the organics and 92% of the controls."—*V. J. Bielianskas.*

3531. **Doehring, D. G., & Reitan, R. M.** (Indiana U. Medical Cent.) **Concept attainment of human adults with lateralized cerebral lesions.** *Percept. mot. Skills*, 1962, 14(1), 27-33.—The Halstead Category Test was administered to 50 adults with lesions of the left cerebral hemisphere, 50 adults with lesions of the right cerebral hemisphere, and 50 nonbrain-damaged control Ss. The control group made significantly fewer errors. The groups with lateralized cerebral lesions did not differ significantly in total errors. All 3 groups were comparable with respect to the pattern of errors made on the subtests of the Category Test.—*W. H. Guertin.*

3532. **Hecaen, H., & Angelergues, R.** **Agnosia for faces (Prosopagnosia).** *Arch. Neurol., Chicago*, 1962, 7(2), 92-100.—Prosopagnosia is the incapacity of the patient to recognize people known to him solely on the basis of visual perception of their faces alone; recognition is accomplished by other cues such as

voice and gait. A review of the literature suggests a close association of the symptoms with lesions of the right hemisphere with concomitant visual-field defects. Findings in 8 of 10 surgically verified cases by the authors showed basal occipital lesions. Constellations of symptoms helpful in the differential diagnosis of this condition are listed. "It is concluded that, while a variety of mechanisms may be capable of modifying the process of recognizing faces, prosopagnosia is a perceptual deficit of a demonstrably specific nature."

—H. D. Arbibman.

3533. Heilbrun, Alfred B., Jr. (U. Iowa) **Issues in the assessment of organic brain damage.** *Psychol. Rep.*, 1962, 10(2), 511-515.—The importance of various problems in assessing brain damage is related to research goals. The major problems encountered when the goal is to maximize accuracy of selection of brain-damaged or nonbrain-damaged are contrasted with those which arise when the goal is a theoretical one of increasing knowledge of brain-behavior relationships. Research methods are discussed.—B. J. House.

3534. Hirschenfang, S. (Kings County Hosp. Cent., Brooklyn, N. Y.) **A comparison of Bender-Gestalt reproductions of right and left hemiplegic patients.** *J. clin. Psychol.*, 1960, 16(4), 439.—In order to obtain more specific data concerning the effect of brain damage in the dominant or nondominant hemisphere upon the performance on the Bender-Gestalt Test, this test was given to 2 groups of 50 institutionalized hemiplegic patients. Group I consisted of 25 right hemiplegics and Group II of 25 left hemiplegics. The Ss of Group I had brain damage in their dominant hemisphere and the Ss in Group II had lesions in the nondominant hemisphere. The Bender-Gestalt drawings were scored using the Pascall and Suttell method; the findings showed that the results of the left hemiplegics were significantly poorer than those of the right hemisphere patients.—V. J. Biliuskas.

3535. Kleist, K. (U. Frankfurt) **Sensory aphasia and amusia: The myeloarchitectonic basis.** (Trans. by F. J. Fish & J. B. Stanton) New York: Pergamon, 1962. 108 p. \$5.00.—The "comprehension of speech and the capacity for expressive speech, which is dependent upon it, are connected with an area in the temporal lobe which comprises the two transverse gyri, the posterior half of the first temporal convolution, and the posterior superior one-third of the second temporal convolution, together with the subcortical and deep white matter, including the auditory radiation from the medial geniculate body. . . . We may ascribe to [the second transverse gyrus] the appreciation of noises and of the specific characteristics of these sounds which have significance for speech. . . . Clinico-anatomical observations show that the comprehension and monitoring of phoneme sequences, that is, of words, is connected principally with the area posterior, while the area superior appears to be mainly responsible for the comprehension and monitoring of word sequences, especially of sentences. . . . There are still no definite indications of the anatomical sites for comprehension of the meaning of grammatically ordered word sequences, of sentences, and of speech, or for ordered thought in so far as this has a foundation in the acoustic aspects of speech. One can only make the negative statement that such territories must lie outside those areas of the temporal lobe of

which the language functions are so far known."—C. T. Morgan.

3536. Landmark, Margrete. (Oslo, Norway) **Visual perception and the capacity for form construction.** *Develpm. Med. child Neurol.*, 1962, 4(4), 387-392.—"The various attempts to explain the common finding that brain-damaged people cannot draw or copy figures at all well are discussed." A case is described in which visual perception is intact but the control of free movement is inadequate to the reproduction of a figure. Use of a ruler made possible the reproduction of the figure, however. Possible neuropathological concomitants are discussed.—T. E. Newland.

3537. Laufer, M. W., & Davids, A. (Emma Pendleton Bradley Hosp.) **Note on visual and figural aftereffects in the brain damaged.** *Percept. mot. Skills*, 1962, 14(1), 88.—Findings and theoretical views on visual and figural aftereffects are reviewed. The authors conclude that the spontaneous type of aftereffect in brain damaged Ss will be less marked because of low conductivity, and their findings appear to support this.—W. H. Guertin.

3538. Levine, M. (Devereux Found. Inst. Research & Training) **Discrimination in diffuse brain damage.** *Amer. J. ment. Defic.*, 1962, 67(2), 287-300.—Diffuse brain damaged Ss demonstrated significantly poorer discrimination sensitivity than emotionally disturbed and normal controls in 3 studies, employing different techniques as well as different groups of males and females. Discrimination sensitivity was found to correlate significantly with intelligence, particularly in the brain damaged Ss. It is suggested that discrimination, as a basic organismic process, warrants careful investigation since it is reasonable to suspect that such deficiency in discrimination has consequences for more complex psychological functions.—V. S. Sexton.

3539. Levine, M., & Spivack, G. (Devereux Found. Inst. Research & Training) **Adaptation to repeated exposure to the spiral visual aftereffect in brain damaged, emotionally disturbed, and normal individuals.** *Percept. mot. Skills*, 1962, 14(3), 425-426.—In a series of trials, normal and emotionally disturbed Ss showed a decrease in Spiral Visual Aftereffects duration sooner than brain damaged Ss. Normal and emotionally disturbed groups increased frequencies of failure to report SVA in later trials; the brain damaged group did not show this tendency. It is concluded that brain damaged Ss show a different adaptation pattern to SVA.—W. H. Guertin.

3540. Moor, Lucie. **Apports de la psychométrie a la neurophysiologie: Examen de 24 adolescents hémiplégiques en fonction de l'âge d'apparition et du côté de la lésion cérébrale.** [Use of psychometry in neuro-physiology: Study of 24 hemiplegic adolescents as a function of the age of onset and of the side of the cerebral lesion.] *Psychol. Franc.*, 1962, 7(1), 56-66.—The test battery included WISC, Terman Vocabulary Scale, Benton Visual Retention Test, Kohn Block Design Test, Goldstein-Sheerer classification, and other perceptual tests. 22 of the Ss studied became hemiplegic before the age of 3. The mean IQ of this group was 70. Their results on both verbal and performance scales were below average. 2 Ss developed the condition at age 13-14; their test results

were more in line with results obtained on adult hemiplegics.—C. J. Adkins.

3541. Thomas, H. B. G. (Cambridge U.) The "supervisor": A hypothetical mental function impaired by brain damage. *J. ment. Sci.*, 1962, 108 (Whole No. 454), 329-346.—Analysis of differences between brain damaged and normal performance in random writing of digits freely and with restrictions shows that information output rate increases linearly with symbol rate. Reversibility—return of a performance in unrestricted test to its initial level—is typical of normals. Monitoring of output is termed "the supervisor" and reaction time of the supervisor and rate of information feedback through the supervisor are also related to performance. The "hysteresis" which measures maladaptation by this information theory approach discriminates sharply between normal and brain-damaged Ss.—W. L. Wilkins.

3542. Tikhomirov, O. K. (Dept. Psychology, Moscow State U., USSR) Issledovanie optimal'nykh sposobov proverki gipotez v norme i patologii: Soobshchenie II. Narushenie osiatsatel'nogo uznaniia slozhnykh izobrazhenii [Optimal methods for checking hypotheses in normal and pathological cases: Communication II. Disturbances of tactile recognition of complex images.] *Dokl. Akad. Pedag. Nauk RSFSR*, 1961, No. 5, 89-92.—4 experiments with 1 S suffering from brain injury in the left parietal lobe. The purpose was to test his spacial orientation by identifying 2 checkers (representing 2 letters) on a checkerboard of 25 cells. A lack of spacial images was indicated by the fact that in all the experiments S used a great deal of superfluous information in order to carry out the different tasks.—A. Cuk.

3543. Weinstein, Edwin A., Marvin, Sidney L., & Keller, Niklaus J. A. (Walter Reed Hosp., Washington, D. C.) Amnesia as a language pattern. *Arch. gen. Psychiat.*, 1962, 6(4), 259-270.—Verbatim recordings were made of 2 or 3 weekly interviews with head traumata patients of whom 45 "developed marked and prolonged amnesia following brain injuries"; 45 had comparable brain injuries but with no, slight, or transitory amnesia; and 45 showed no or slight brain damage. Memories of last event prior to injury, selective forgetting, confabulations and retrograde amnesia were related to current problems. Patients' language in reference to not remembering "specifically indicated those areas of social relatedness through which identity had been achieved." It is concluded that amnesia is not explicable as a unitary memory defect or as a loss of motivation, but that like other forms of language its meaning varies with the organization of brain function and the social context in which it is expressed. (25 ref.)—L. W. Brandt.

Cerebral Palsy

3544. Barsch, Ray H. Rearing practices of parents of children with cerebral palsy: Toilet training. *Cerebral Palsy Rev.*, 1962, 23(5), 12-16.—The findings obtained by means of 20 self-administered questionnaires and a comprehensive individual interview for 51 families in a midwestern city are reported. The information on bowel training and nocturnal bed wetting is presented with respect to age of initiation of bowel training, length of time of such training, techniques employed, comparison with success with

nonhandicapped siblings, and frequency and pattern of bed wetting.—T. E. Newland.

3545. Benson, Jack F. (U. Miami, Coral Gables, Fla.) An analysis of the speech of cerebral palsied individuals in an effort to determine employability levels. *Cerebral Palsy Rev.*, 1962, 23(3), 9-13.—The speech of 50 Ss, 18 years of age and older, was studied, only as regards the individual's audible communicative speech. 89.2% of the judgments of 3 personnel men agreed on levels of employability with regard to the speech of the Ss. Ratings on articulation, rhythm, and rate were valid predictors of employability, with pitch and quality contributive in extreme cases.—T. E. Newland.

3546. Irwin, Orvis C. (U. Wichita) Substitution and omission errors by children with cerebral palsy in the articulation of triple consonant blends. *Cerebral Palsy Rev.*, 1962, 23(5), 5-6.—In the analysis of response of 200 Ss to Templin's test of triple consonant blends, omissions were found to exceed substitutions to a greater degree than reported in other studies.—T. E. Newland.

3547. Irwin, Orvis C. (U. Wichita) A test of triple consonant blends for use with children with cerebral palsy. *Cerebral Palsy Rev.*, 1962, 23(4), 9-11.—Templin's Test of Triple Consonant Blends was tried on 2 samples (100 each) of cerebral palsied children, 5-16 years of age, widely scattered geographically. The test was found satisfactory for use with such children, with the observation that "it may be found easy with some children."—T. E. Newland.

3548. Jensen, G. D., & Kogan, Kate L. (U. Washington, Seattle) Parental estimates of the future achievement of children with cerebral palsy. *J. ment. Defic. Res.*, 1962, 6(1), 56-64.—A questionnaire was designed to study the tendency of parents of handicapped children to over-estimate the children's ultimate level of achievement. Data were obtained from 110 parents of 68 children who were also rated by the staff at a treatment centre. Discrepancy between staff and parent rating was the unit of measurement used. The findings indicated that children who were handicapped both physically and intellectually were more likely to be over-rated by their parents than less handicapped children, and that younger children were more likely to be over-rated than older ones. Some of the practical implications of this kind of measure in a treatment centre were discussed.—A. Barclay.

3549. Maisel, R. N., Allen, R. M., & Tallarico, R. B. (U. Miami, Fla.) A comparison of the adaptive and standard administration of the Leiter International Performance Scale with normal children. *Cerebral Palsy Rev.*, 1962, 23(5), 3-4, 16.—46 private-school children (23 boys, 23 girls; CA range from 5-0 to 11-3) were administered the LIPS. For 16 of the children, internal consistency on the test was found by means of a split-half approach. The remaining 30 (15 matched pairs) took the LIPS by (rotated) standard and adapted procedures, which did not yield statistically different scores. Caution is advised against generalizing the findings to other adaptations.—T. E. Newland.

3550. Mitchell, Ross G. (U. St. Andrews, Dundee, Scotland) Mixed types of cerebral palsy. *Cerebral Palsy Rev.*, 1962, 23(3), 3-6, 13-15.—Of 240 cases of cerebral palsy, 23 were diagnosed as mixed

types (8 athetosis and spasticity, 7 ataxia and spasticity). 3 of the cases were considered to be post-natal in origin. The characteristics of each of the 7 mixed types are described, prevalence and etiology are discussed, and a summary of other reports of mixed types is presented. The use of the concept of mixed types is proposed over the practice of diagnosing in terms of the predominant disorder in view of attending special difficulties in education and employment. (30-item bibliogr.)—*T. E. Newland.*

3551. Nielsen, Helle H. (Rigshospitalet, Copenhagen, Denmark) **Visual-motor functioning of cerebral palsied and normal children.** *Nord. Psykol.*, 1962, 14(2), 43-103.—An experimental group comprising 2 matched subgroups of 20 children with spastic hemiplegia and 20 children with spastic paraplegia (aged 6-15) was compared with a matched control group on the Pender Visual Motor Gestalt Test, the Goldstein-Scheerer Cube Test, and the Rey Labyrinth Test. As hypothesized the experimental group did significantly poorer on all 3 tests with the hemiplegic children showing a tendency to do poorer than the paraplegic. 2 of the tests (Bender-Gestalt and Rey discriminated best between children of normal or above normal IQ; these 2 tests being found to correlate in the low IQ range for both the spastic and the normal groups. Differences between spastic and normal children were largest in the lowest age range (6-8 years). Pronounced individual differences were found: the intercorrelation among the 3 tests was low, with only 10% of the spastic children showing all signs of impaired visual-motor performance, 50% showing some of the signs, and 40% showing none of the signs (for the normal group the corresponding figures were 0%, 27% and 73%).—*L. Goldberger.*

3552. Nussbaum, Jacob. (New York U.) **An investigation of the relationship between the self-concept, mother concept and reality orientation of adolescents with cerebral palsy.** *Dissert. Abstr.*, 1962, 22(12), 4410-4411.—*Abstract.*

3553. Sato, Chiyoko. (Toyko) **A study of rhythm patterns of cerebral palsied children.** *Cerebral Palsy Rev.*, 1962, 23(5), 7-11.—25 children, 1st through 6th grades, were given a "time reproduction" music test and a "speed adaptation" test (responding at slower or faster tempo than the stimulus). The findings supported the conclusions (among others) that "cerebral palsied children can explore only a limited area of rhythmical expression"; differing rhythm patterns evoke "great confusion" in rhythmical expression; perseveration is a factor; intelligence appears not be a determining factor; and "it is very difficult to tell the proper time for going on to a next rhythm."—*T. E. Newland.*

3554. Young, Edna Hill. (Los Angeles, Calif.) **The moto-kinesthetic method as applied to the cerebral palsied.** *Cerebral palsy Rev.*, 1962, 23(3), 7-8.—The importance of identifying the structures involved in making the speech sounds, of providing the initial movement for the child, and of appropriate psychological timing of the work in speech is discussed and illustrated by means of a case history.—*T. E. Newland.*

MENTAL RETARDATION

3555. Barclay, A., Goulet, L. R., Holtgrewe, M. M., & Sharp, A. R. (St. Louis U.) **Parental**

evaluations of clinical services for retarded children. *Amer. J. ment. Defic.*, 1962, 67(2), 232-237.—Parental evaluations of clinical services provided for retarded children were obtained by questionnaire methods. An adequate respondent sample of parents was obtained. The evaluations and their implications are discussed.—*V. S. Sexton.*

3556. Barsch, R. H. (Easter Seal Child Development Cent., Milwaukee, Wis.) **The sub-trainable child: A community program.** *Amer. J. ment. Defic.*, 1962, 67(1), 33-40.—A specialized parent-child program is described. This program was organized for severely retarded children assumed to have little or no potential for later school participation. Over a 3-year period 45 children were enrolled. The significant findings that might be valuable for those attempting to work with this population are discussed.—*V. S. Sexton.*

3557. Baumeister, A., & Bartlett, C. J. (Central Michigan U.) **Further factorial investigations of WISC performance of mental defectives.** *Amer. J. ment. Defic.*, 1962, 67(2), 257-261.—In this investigation 2 factor analyses were done: (a) to determine whether or not the same correlation patterns of the WISC subtests underlie the performance of institutionalized Ss, and (b) to examine the correlation between the subtest Digit Span and the short-term memory factor. Essentially the same factor patterns were found for both institutionalized and non-institutionalized Ss, but the intercorrelations of the subtests tended to be considerably lower with respect to the former group. Analyses indicated that 4 factors underlie the performance of retardates on the WISC: General, Verbal, Performance, and Short-term Memory. The last factor is most closely identified with the subtests Digit Span, Coding, and Arithmetic.—*V. S. Sexton.*

3558. Begab, M. J. (United States Children's Bureau, Washington, D. C.) **Recent developments in mental retardation and their implications for social group work.** *Train. Sch. Bull.*, 1962, 59(2), 42-52.—The developments in mental retardation that have special implications for social group work are described.—*V. S. Sexton.*

3559. Bergman, J., Bethel, J., Pratt, R., & Lavis, L. W. (Glenwood State School, Ia.) **A community focused institutional approach to mental retardation.** *Amer. J. ment. Defic.*, 1962, 67(1), 94-100.—The Community Services Program of Glenwood State School is described. It is based on the recognition that institutionalization for the mentally retarded is but one of the many possible types of services for these disabled persons and their families. It recognizes the primary responsibility and desire of the family to meet the needs of its members. Because of the increasing complexity of society, it is often necessary for the community to assist the family in fulfilling its responsibility. Glenwood State School offers technical aid and assistance in appropriate use of its facilities and in the development of additional services to the fullest possible extent consistent with the desires of the community.—*V. S. Sexton.*

3560. Bialer, Irv. (George Peabody Coll.) **Conceptualization of success and failure in mentally retarded and normal children.** *J. Pers.*, 1961, 29(3), 303-320.—45 retarded and 44 normal children were given the following treatments: (a) a verbal

locus of control scale to evaluate whether he characteristically perceived events and outcomes as being internally or externally controlled. (b) a repetition choice situation to differentiate between responses to hedonistic cues and cues of success and failure, (c) a condition to estimate the child's commitment to an immediate or delayed gratification pattern. The data were analyzed by multiple correlation and factor analysis. "The results suggested that retarded children do not differ qualitatively from normal children in the development of the ability to conceptualize success and failure. However . . . it was concluded that retarded children are chronologically older than their normal counterparts at any given level of the conceptual development under consideration."—G. T. Lodge.

3561. Candland, D. K. & Conklyn, D. H. (Bucknell U.) **Use of the "oddy problem" in teaching mentally retarded deaf-mutes to read: A pilot project.** *Train. Sch. Bull.*, 1962, 59(2), 38-41.—A report is presented of a technique for teaching congenital deaf-mutes with reported mental retardation to read. This technique is based on the "oddy problem"—a discriminative behavior problem employed in animal research. The authors discuss research problems concerned with refinement of the technique.—V. S. Sexton.

3562. Carlson, Gordon John. (U. Washington) **The behavior of developmentally retarded children as a function of loss of reinforcement to a peer.** *Dissert. Abstr.*, 1961, 22(5), 1714.—Abstract.

3563. Chandler, Caroline A., Norman, Vivian B., & Bahn, Anita K. (National Inst. Mental Health) **The mentally deficient in outpatient psychiatric clinics.** *Amer. J. ment. Defic.*, 1962, 67(2), 218-226.—Data are presented on services to the mentally retarded throughout the United States, obtained from a nationwide reporting system. The data cover the following: number of facilities in the United States serving the mentally retarded, number of mentally deficient outpatients in psychiatric clinics, and clinic services.—V. S. Sexton.

3564. Clarke, A. D. B., & Cookson, Margaret. (Manor Hosp., Epsom, Surrey, England) **Perceptual-motor transfer in imbeciles: A second series of experiments.** *Brit. J. Psychol.*, 1962, 53(3), 321-330.—Earlier experiments tested a hypothesis derived from Hebb, that perceptual-motor transfer would be negatively correlated with age in imbecile Ss of 9, 17, and 23 years. On 4 tasks this hypothesis was strongly confirmed, with the youngest showing massive transfer of training compared with the older Ss, and almost reaching adult level. The present series of experiments included tasks of greater complexity. An unexpected finding was that the younger Ss were able, after 6 months of no-practice, to learn a more difficult sorting task more easily than the easier one 6 months earlier, thus showing the retention of learning set and improved perceptual and conceptual discrimination. Another experiment with the complex Minnesota formboards again showed greater transfer in children than in adults; here an initial average gap of 640 sec. between the performance of children and that of adults was narrowed to 45 sec. after 32 trials. Finally, after a year of nonpractice, adolescent and adult Ss were able to carry out a sorting task very much better than previously, indicating the long-term

effect of earlier learning. Implications for theory and practice are discussed.—*Journal abstract.*

3565. Cleland, C. C. (Abilene State School) **Severe retardation: Program suggestions.** *Train. Sch. Bull.*, 1962, 59(2), 31-37.—Forces that enter into programming are described in terms of ward design, behavioral characteristics of the group, physical characteristics, and the objectives of the program. Programs must be dynamic. They must be changed in line with findings of basic and applied research. Numerous major improvements can be instituted today because of increased federal, state, and local support of research.—V. S. Sexton.

3566. Copeland, R. (Parsons State Hosp., Kan.) **Therapy considerations for the institutionalized mentally retarded.** *Train. Sch. Bull.*, 1962, 59(2), 53-58.—Positive and negative aspects of the institutional setting are discussed with specific reference to speech therapy. The therapist is cautioned never to regard the institution as end-of-the-line termination for the patient. Realistic therapeutic goals demand that the institutionalized retardate be stimulated to develop verbal behavior appropriate to the community rather than to the institution.—V. S. Sexton.

3567. Davy, Ruth Ann. (Inst. Educational Research, Washington, D. C.) **Adaptation of progressive-choice method for teaching reading to retarded children.** *Amer. J. ment. Defic.*, 1962, 67(2), 274-280.—For a 2 year period an experimental reading program using Woolman's Progressive-Choice method was conducted in a school for trainable retarded children. Of the 13 Ss, 3 received 2 full school years of instruction, 7 had 1 school year, and 3 had less than 1 year. Results of testing before and after summer recesses showed that the children retained a large percentage of learned material. Those who participated in the program for 1 year progressed from a nonreading level to recognizing and writing most of the letters in the alphabet and to using these letters in a few simple words. In 2 years, 3 children aged 11-13, with IQs in the mid-50s, progressed from no functional reading to the level of reading meaningfully, with no or minimum help, sentences and stories considered appropriate for "normal" children at approximately the 1st-3rd grade reading level. Results indicate that a Progressive-Choice approach may be more efficient and effective in teaching mentally retarded children to read than methods commonly used.—V. S. Sexton.

3568. Deisher, Robert W., Balkany, Andrew F., Prewitt, Charles D., & Redfield, William J. (U. Washington) **Phenylketonuric families in Washington State.** *Amer. J. Dis. Children.*, 1962, 103(6), 818-821.—A report of a statewide effort to alert families and agencies dealing with PKU children for the purpose of preventing mental retardation in other children born in these families.—A. B. Warren.

3569. Dybwad, Gunnar. (National Ass. Retarded Children, NYC) **Mental retardation: A billion-dollar challenge.** *J. Rehabil.*, 1962, 28(3), 2.—An editorial comment by the author on the needs of the mentally retarded for special social consideration and the opportunity to achieve the fullest possible attainment in home, school, vocation, and the community.—M. A. Seidenfeld.

3570. Finley, C. J. (Teachers Coll., Columbia U.) **Arithmetic achievement in mentally retarded chil-**

dren: The effects of presenting the problem in different contexts. *Amer. J. ment. Defic.*, 1962, 67(2), 281-286.—3 hypotheses were tested (a) that arithmetic achievement of retarded children is independent of the context in which the problem is presented, (b) that arithmetic achievement of normal children is independent of the context in which the problem is presented, and (c) that there is no difference between the arithmetic achievement of retarded and normal children of the same mental age on instruments of like context. 54 educable retarded children and 54 normal 3rd grade children were tested using especially designed instruments—an individually administered concrete instrument and group administered pictorial and symbolic tests. The 1st 2 hypotheses were rejected. Significant differences were found for both retarded and normal Ss which indicate that performance on tests of arithmetic achievement is affected by the context in which the problem is presented. The 3rd hypothesis was accepted for the concrete and pictorial forms of the test but rejected for the symbolic forms, that is, the retarded did significantly better than the normal of same mental age on this test of computational skills.—V. S. Sexton.

3571. Fisher, G. M. (Fairview Hosp., Costa Mesa, Calif.) Further evidence of the invalidity of the Wechsler Adult Intelligence Scale for the assessment of intelligence of mental retardates. *J. ment. Defic. Res.*, 1962, 6(1), 41-43.—"This study further investigated the validity of the WAIS for the assessment of intelligence of mental retardates. WISC IQ's of 127 mental retardates were compared with their WAIS IQ's obtained after an average time interval of 5½ years. The mean WAIS IQ was 9.33 points higher than the mean WISC IQ. Data from the present study and those from an earlier study . . . were reviewed in support of the hypothesis that the WAIS is an invalid measure of the intelligence of mental retardates."—A. Barclay.

3572. Fleming, J. W. (Rainier School, Buckley, Wash.) The critical incident technique as an aid to in-service training. *Amer. J. ment. Defic.*, 1962, 67(1), 41-52.—This study attempted to show the usefulness of Flanagan's critical incident technique in obtaining empirical information useful for the establishment of a curriculum for patient-care aspects of in-service training. 10 college students in residence at a state institution for the mentally retarded reported on the staff-resident interactions they observed during a 4 week period. Each day 2 incidents were submitted, one describing an effective interaction and another an ineffective interaction. The scheme for classifying the 302 incidents is indicated and the implications of the findings are discussed.—V. S. Sexton.

3573. Fuller, Ray W., Luce, Merton W., & Mertz, Edwin T. (Fort Wayne State School, Ind.) Serum uric acid in mongolism. *Science*, 1963, 137 (Whole No. 3533), 868-869.—A highly significant increase ($P < .01$) in average uric acid level was found in the blood serum of mongoloids when levels were compared with those in normal control Ss or nonmongoloid, mentally retarded Ss. The possible relationship of these findings to other abnormalities known to exist in mongolism is discussed.—*Journal abstract*.

3574. Gibson, D. (Ontario Hosp., Smith Falls, Ont., Canada) The disputed bond between stigma

frequency and amentia in mongolism. *Amer. J. ment. Defic.*, 1962, 67(1), 90-92.—V. S. Sexton.

3575. Gragert, Herbert T. (Goodwill Industries Greater Kansas City, Mo.) Differential diagnosis, training, and job placement for the mentally retarded. *J. Rehabil.*, 1962, 28(3), 35-37.—A description of an OVR-sponsored project to provide vocational evaluation and training services for mentally retarded adolescents and adults in Missouri and Kansas. This 4-year-old program has provided services for 333 referred clients of whom 94 have been placed in jobs. About 70% received positive vocational services. Greater community participation and a broadening of the program is encouraged so that more clients who might otherwise be neglected may achieve their full potential.—M. A. Seidenfeld.

3576. Guskin, S. L. (George Peabody Coll. Teachers) The perception of subnormality in mentally defective children. *Amer. J. ment. Defic.*, 1962, 67(1), 53-60.—This study examined the influence of previous information and extent of observation upon the judged subnormality of certain mentally defective children. 4 children aged 9 to 14 with IQ's of about 50, were each observed in play by groups of naive Ss. The Ss, 45 college students, were asked to make a series of descriptive adjective choices following a brief soundless observation period and later again following a more extensive period when they were able to hear the child talking to a nursery school teacher. The adjectives most related in content to mental subnormality were combined into a single index of "perceived subnormality." Prior to observing a child, the Ss were told whether the child was mentally retarded, had a speech defect, what his true age was, or given no additional information. The author found that (a) giving the Ss the child's correct age resulted in greater perceived subnormality when the Ss had been allowed extensive observation, (b) telling Ss the child had a speech defect resulted in lower subnormality ratings, (c) labelling the child as mentally retarded had no influence upon perceived subnormality. It was found that whereas 3 of the children were seen as more subnormal upon further observation, the 4th child was seen as less subnormal the 2nd time.—V. S. Sexton.

3577. Heffelfinger, John C. (Coldwater State Home & Training School, Mich.) Progressive hydrocephalus. *Amer. J. Dis. Children.*, 1962, 103(6), 835-836.—A surgical procedure performed on 21 institutionalized hydrocephalics yielded no IQ changes but improved self-help and simplified care of the children.—A. B. Warren.

3578. Holowinsky, I. IQ Constancy in a group of institutionalized mental defectives over a period of 3 decades. *Train. Sch. Bull.*, 1962, 59, 15-17.—This study investigated the stability of IQ during the long-term residential placement of a group of retarded individuals. The total series showed no significant change in IQ. Apparently, long-term residency in a private institution for retarded children does not adversely affect IQ. In contrast to findings reported for nonretarded populations, the present series of retardates did not show any significant growth in mental age beyond life age 17. This suggests that in addition to being delayed in their rate of mental development, retardates may also reach their ceiling at a younger age than normals. Of those whose IQ changed, decline was more frequent in

individuals with IQs below 46. Children with higher IQs appear to be admitted to the Training School at an older age than their more retarded counterparts.—*V. S. Sexton.*

3579. Klausner, Max. (New York U.) **The attitudes of mothers toward institutionalized and non-institutionalized retarded children.** *Dissert. Abstr.*, 1961, 22(3), 915.—*Abstract.*

3580. Kniss, Janet T., Butler, A., Gorlow, L., & Guthrie, G. M. (Laurelton State School, Pa.) **Ideal self patterns of female retardates.** *Amer. J. ment. Defic.*, 1962, 67(2), 245-249.—The ideal self-attitudes of mentally retarded female adolescents were investigated. A 50-item Ideal Self-Attitude Scale was constructed and an unforced Q-sort technique was used to obtain a measure of ideal self attitudes. 79 Ss randomly selected from a defined subpopulation of institutionalized female retardates took the scale. 5 interpretable factors were revealed by factor analysis: 1 tended toward a general dimension of personal worth and physical health while the remaining 4 represented modes of getting along with people. No association was discovered between the factors and the variables of age, intelligence, and length of institutionalization. Overall reliability of the scale was found to be satisfactory. Explanations were presented for the lack of association and for intersubject variability in consistency of ideal self conceptualization.—*V. S. Sexton.*

3581. Lawson, J. R., & Avila, D. (U. Nebraska) **Comparison of Wide Range Achievement Test and Gray Oral Reading paragraphs reading scores of mentally retarded adults.** *Percept. mot. Skills*, 1962, 14(3), 474.—The Wide Range Achievement Test was shown to correlate .94 with the Gray Oral Reading Test for a group of adult defectives.—*W. H. Guertin.*

3582. Mein, R. (Harperbury Hosp., Herts, England) **Use of the Peabody Picture Vocabulary Test with severely subnormal patients.** *Amer. J. ment. Defic.*, 1962, 67(2), 269-273.—Use of the Peabody Picture Vocabulary Test (PPVT) with severely subnormal patients suggests that this test correlates highly with the Revised Stanford-Binet. Caution in the use of the PPVT with English Ss is suggested by a tendency for VA's (vocabulary age) to diverge significantly from MA's in the lower VA ranges, and by certain Plates being misplaced in order of difficulty. Patients of very low VA are shown to have specific difficulties in successful recognition of action pictures with object pictures.—*V. A. Sexton.*

3583. Meyerowitz, Joseph H. (Cornell U.) **Self-derogations in young retardates and special class placement.** *Child. Developm.*, 1962, 33(2), 433-451.—Of the 1807 entering 1st grade children, 120 were identified as having Binet IQs of 60 to 85. $\frac{1}{2}$ were randomly assigned to special classes and $\frac{1}{2}$ to regular classes. A criterion group of 60 normal children were identified to match the retarded sample with regard to area of residence, father's occupation, and family income. All Ss were tested with Illinois Index of Self-Derogation at the end of their 1st year of schooling. The retarded Ss were more self derogatory, in general, but those assigned to special classes were even more self derogatory.—*W. J. Meyer.*

3584. Morán, Roberto E. (U. Puerto Rico) **Levels of attainment of educable subnormal ado-**

lescents. *Brit. J. educ. Psychol.*, 1960, 30, 201-210.—300 English special-school subnormal children, 160 boys and 140 girls (CAs 14-16, mean 15.2; Terman-Merrill [TM] IQs 41-90, mean IQ 65.7, mean MA 9.5; Progressive Matrices [PM] IQs 55-99, mean 73.7, mean MA 10.7) were given tests of arithmetic, general information, language, reading, spelling, and craft. In each area except craft, Ss' mean attainment ages were lower than both their mean TM and PM MAs, their overall scores being comparable to those of "normal" 3rd-grade children. Subnormal Ss tend to score higher on the nonverbal PM than on the verbal TM, suggesting that instruction should be through visual rather than verbal media.—*C. T. Morgan.*

3585. Mosier, H. D., Grossman, H. J., & Dingman, H. F. (U. California Medical School, Los Angeles) **Secondary sex development in mentally deficient individuals.** *Child Developm.*, 1962, 33(2), 273-286.—"A survey of the age incidence of secondary sex development in an institutionalized population of mentally deficient males and females has shown that there is a tendency for a delay in the appearance of secondary sex features in the mentally retarded, when compared with a cross-section of the population as presented by Kinsey and Pryor. Differences within 4 diagnostic groups and 3 IQ groups of the mentally deficient patients were compared and found not to be statistically significant with the exception of axillary hair for the mongoloid girls between 14 and 17 years of age."—*W. J. Meyer.*

3586. Mullen, Frances A. (Board Education, Chicago, Ill.) **Une méthode inductive pour la détermination des aspects significatifs des réponses d'enfants déficients mentaux au T.A.T. et au Michigan Picture Test.** [An inductive method for determining significant aspects of the response of mentally deficient children to the TAT and the Michigan Picture Test.] *Rev. Psychol. appl.*, 1961, 11(4), 279-291.—Based on the records of 680 pupils examined in 1957-58 of whom 554 were reexamined in 1958-59 and 148 in 1959-60, several groups were formed: 2 random samples of 100 each and 3 chosen to represent well adjusted cases, poorly adjusted and hostile, and poorly adjusted but not hostile. A scoring scheme as to 140 characteristics of the stories with which the children had responded to the cards of the TAT and Michigan Picture Story Test was applied. 10 scales are being developed as follows: Weak Self-Concept, Hostility, Anxiety, Pessimism, Passivity, Positive Value System, Superego, Negative Value System, Optimism, and Scale X (probable illness and inefficient thinking). The system appears to have retained definite diagnostic validity while producing a scoring system objective to the point where reliability is achieved when protocols are scored by different persons.—*W. W. Wattenberg.*

3587. Murphy, M. M. (Southeast Louisiana Hosp.) **Hand preferences of three diagnostic groups of severely deficient males.** *Percept. mot. Skills*, 1962, 14(3), 508.—Left handedness has been reported to be greater among defectives. These data affirm this, with the Familial group significantly higher than Mongolians. Brain injured were intermediate.—*W. H. Guertin.*

3588. Patterson, R. G. (Edward R. Johnstone Training & Research Cent.) **Coordinates of "popularity" of institutional work supervisors.** *Amer.*

J. ment. Defic., 1962, 67(1), 29-32.—No significant relationships were found between the popularity of institutional work supervisors as rated by 109 mildly retarded adolescent trainees at an institution, and variables such as work supervisor's educational level, knowledge of retardation, and length of time worked with mental retardates. Most popular supervisors appeared to be characteristically patient, indulgent individuals, and less hampered by production schedules.—*V. S. Sexton.*

3589. **Probstein, I., & Kusuda, P.** (Central Wisconsin Colony & Training School) **Use of group techniques in the pre-admission process.** *Amer. J. ment. Defic.*, 1962, 67(2), 227-231.—The experiences of a social service department, in a large public welfare institution for the mentally retarded at Central Wisconsin Colony, in conducting a pre-admission service for parents of newborn infants and children under 7. Group techniques were used to deal with the many varied and complex effects that the birth of a mentally retarded child has on the family. They are considered sound and effective in the accomplishment of the unusually difficult goal. They are emphasized, however, as a tool and not a panacea for a solution.—*V. S. Sexton.*

3590. **Rundle, A. T.** (St. Lawrence's Hosp., Caterham, Surrey, England) **Etiological factors in mental retardation: I. Biochemical.** *Amer. J. ment. Defic.*, 1962, 67(1), 61-68.—3 groups of biochemical anomalies associated with mental deficiency are described: carbohydrate anomalies, amino-acid and protein anomalies, and the neurolipidoses.—*V. S. Sexton.*

3591. **Rundle, A. T.** (St. Lawrence's Hosp., Caterham, Surrey, England) **Etiological factors in mental retardation: II. Endocrinological.** *Amer. J. ment. Defic.*, 1962, 67(1), 69-77.—The following disorders are described: hypoparathyroidism, sex-chromosome anomalies, Turner's syndrome, Klinefelter's syndrome, double chromatin anomalies, nephrogenic diabetes insipidus, hypoglycaemia, dwarfism, sexual infantilism, and mongolism.—*V. S. Sexton.*

3592. **Saxton, G. H.** (Edward R. Johnstone Training & Research Cent., Bordentown, N. J.) **Spontaneous fantasy as a resource of high grade retardates for coping with a failure-stress frustration.** *J. abnorm. soc. Psychol.*, 1962, 64(1), 81-84.—Institutionalized high grade (60 IQ and above) retardates between the ages of 12 and 22 were divided into 2 groups on the basis of degree to which fantasy (as measured by a Fantasy Inventory) characterized their personality makeup. Ss were then placed in a frustrating situation (E making deprecatory remarks regarding S's tracing geometric designs). Post frustration, Ss were placed in a waiting room situation, one group permitted, the other not, to talk, smoke, and chew. High and low fantasizers were not generally distinguishable except by 2 of the subscales of an Attitude Questionnaire.—*G. Frank.*

3593. **Shepps, R., & Zigler, E.** (Yale U.) **Social deprivation and rigidity in the performance of organic and familial retardates.** *Amer. J. ment. Defic.*, 1962, 67(2), 262-268.—The present study tested 2 contradictory hypotheses: (a) that organic retardates are inherently more rigid than familial retardates of the same MA, (b) that organic and familial retardates of the same MA do not differ in

cognitive rigidity and that the rigid behaviors manifested by both groups reflect a heightened desire for social support and approval. A simple 2 part satiation type task was employed. $\frac{1}{2}$ the Ss in each group played the game under a nonsupport and $\frac{1}{2}$ under a support reinforcement condition. 3 measures were used: time spent on the game, errors made, and Kounin's causation index. The specific predictions derived from the motivational hypothesis were supported, while those derived from the opposing hypothesis were not. Findings were related to other investigations.—*V. S. Sexton.*

3594. **Silverstein, A. B.** (Pacific State Hosp.) **Note on terminology.** *Amer. J. ment. Defic.*, 1962, 67(2), 303-305.—Mental deficiency terminology is discussed. "Mental retardation," with its suggestion of delayed development is the current preference. This preference seems consistent with the present attitude of cautious optimism, as represented by an emphasis on active treatment, training, rehabilitation, and research.—*V. S. Sexton.*

3595. **Smith, Bessie S.** (Lower Peninsula Mental Hygiene Clinic, Newport News, Va.) **The relative merits of certain verbal and non-verbal tests in the second-grade level.** *J. clin. Psychol.*, 1961, 17(1), 53-54.—"Three intelligence tests and a reading test were individually administered to 100 second-grade pupils to discover whether tests requiring neither speech nor manipulation would correlate well enough with the WISC IQs of normal children to justify experimenting with them as a means of predicting the educability of severely handicapped children." All correlations were positive and better than chance, but only the average of the Full-Range Picture Vocabulary and California Mental Maturity Scale IQs showed promise of being useful.—*V. J. Bielianskas.*

3596. **Sternlicht, M., & Wanderer, Z. W.** (Willowbrook State School, Staten Island, N. Y.) **Nature of institutionalized adult mongoloid intelligence.** *Amer. J. ment. Defic.*, 1962, 67(2), 301-302.—Certain findings, which have been replicated by a recently completed West Coast study are presented: (a) The average institutionalized mongoloid adult is about 27 years of age. (b) The average MA is about 3.5 years. (c) The average IQ, as determined by the Revised Stanford Binet (Form L), is 24. (d) Sex differences in intelligence were observed in the East Coast study, but not in the West Coast study.—*V. S. Sexton.*

3597. **Van Pilsum, J. F., & Halberg F.** (U. Minnesota Medical School, Minneapolis) **A method for the determination of argininosuccinic acid in human urine.** *Amer. J. ment. Defic.*, 1962, 67(1), 82-89.—A description is given of a screening procedure for argininosuccinic acid in human urine. Amounts of the acid greater than approximately 300-500 mg./day may be detected. 192 mentally retarded patients at the Cambridge Minnesota State School and Hospital were screened for this acid. No cases were found. Since argininosuccinic aciduria is relatively rare in mentally deficient populations, a simple, yet specific, procedure is believed to be needed. The procedure described in this paper may be useful in large scale investigations of this aspect of mental retardation.—*V. S. Sexton.*

3598. **Wagner, Henry R.** (Kauaikeolani Children's Hosp., Honolulu) **Mongolism in orientals.** *Amer. J. Dis. Children*, 1962, 103(5), 706-714.—A descrip-

tion of the characteristics of mongolism in a group of 29 oriental mongoloid children and comparisons with Caucasian mongoloids.—A. B. Warren.

3599. Warren, Sue A., & Kraus, M. J., Jr. (Oregon Fairview Home, Salem, Ore.) **WAIS Verbal minus Performance IQ comparisons in mental retardates.** *J. clin. Psychol.*, 1961, 17(1), 57-59.—150 Ss, 75 males and 75 females, who were newly admitted to a state institution for mentally retarded and epileptic patients were given the WAIS Full Scale. The results were compared in terms of the achievement of the Verbal vs. Performance IQs. The IQ ranges of these Ss were between 46 and 79 and 75% of them had a higher Performance IQ than Verbal. However, "the difference between Verbal and Performance IQ for 'lower IQ' Ss was less clear-cut, with the mean of the differences being less than 1 point and with 35% of this group having Verbal IQ greater than Performance IQ."—V. J. Bieliasukas.

3600. Wolinsky, Gloria. (Hunter Coll., NYC) **Piaget and the psychology of thought: Some implications for teaching the retarded.** *Amer. J. ment. Defic.*, 1962, 67(2), 250-256.—Piaget's theory and method are described together with their implications for teaching the exceptional. Current use of Piaget's premises on the retarded are also indicated.—V. S. Sexton.

3601. Woodward, Mary. (University Coll., Swansea, United Kingdom) **The application of Piaget's theory to the training of the subnormal.** *J. ment. Subnorm.*, 1962, 8(1, Whole No. 14), 17-25.—A discussion of the applicability of Piaget's concepts of the nature of thought processes in the child to the development of perceptual and conceptual skills in the retarded child, with emphasis upon the use of manipulative materials designed to develop such skills.—A. Barclay.

3602. Wright, Stanley W., Valente, Mario, & Tarjan, George. (Pacific State Hosp., Pomona, Calif.) **Medical problems on a ward of a hospital for the mentally retarded.** *Amer. J. Dis. Children*, 1962, 104(2), 142-148.—Physical, neurological, and medical problems of young, severely retarded, hospitalized children are described.—A. B. Warren.

3603. Zeaman, David; & House, Betty J. (U. Connecticut) **Approach and avoidance in the discrimination learning of retardates.** *Child Developm.*, 1962, 33(2), 355-372.—"Three discrimination learning experiments were carried out on 42 imbecile children with MAs of about 4 years. The goal of the study was to find out if the effect of a reward (approach tendency) was strong or weak in comparison with the effect of a nonreward (avoidance tendency). Three experimental techniques were used in the analysis: the ambiguous cue method, the cue-substitution method, and the conditional-reaction problem. . . . Approach tendencies were formed more rapidly than avoidance early in learning. Approach and avoidance tendencies have approximately equal strengths in an established discrimination. Retardates do not appear to differ, in the above respects, from other Ss."—W. J. Meyer.

3604. Zigler, Edward. (Yale U.) **Social deprivation in familial and organic retardates.** *Psychol. Rep.*, 1962, 10(2), 370.—Test results indicating more social deprivation experience among 20 familial retardates than 20 organic retardates "lends credence

to the hypothesis that reported differences in the performance of the two types of retardates are due in part to motivational differences in the two populations."—B. J. House.

BEHAVIOR PROBLEMS

3605. Dracoulides, N. N. **Défémínisation de la femme survalorisée et infantilisme d'adultes et de jeunes.** [Defeminization of the overvalued woman and resulting infantilism in adult and young men.] *Acta psychother. psychosom.*, Basel, 1962, 10(1), 53-61.—The modern post-war woman induces mother-search in the young man, regression in the adult. Maternal tendencies, power, and domination are manifest in turn. Emancipation and overestimation are not the same. By losing her femininity, a woman is unable to be either man or woman.—G. Rubin-Rabson.

3606. Finkelstein, J. **A propos de quelques conduites masochiques.** [Certain types of masochistic behavior.] *Rev. Franc. Psychanal.*, 1962, 26(1), 67-86.—Several theories of masochism—life and death instincts, self-punishing aggression directed against the self, masochistic object-relation, correlations of masochism and homosexuality, masochism and narcissism, masochism and introjection or sublimation—are considered inadequate. The author illustrates other dynamics through case presentations.—G. Rubin-Rabson.

3607. Offergeld, H. (Gruenewaldstr. 60, Köln-Muengersdorf, Germany) **Psychische Änderungen bei sexueller Umstellung: Ein Kapitel aus der psychologischen Gynäkologie.** [Psychic changes accompanying changes in sexual life: A chapter from psychological gynecology.] *Z. psycho-som. Med.*, 1962, 8(1), 31-35.—When a nondyspareunic woman with normal sexual experience gives up her regular sex contact with her compatible, potent partner, she experiences changes in her psychic-mental sphere. The changes will be proportionate with the abruptness of the imposed sex abstinence. Transient occasional resumption of sexual experience in such women is not recommended.—I. Neufeld.

Alcoholism

3608. Krimmel, H., & Falkey, D. B. **Short-term treatment of alcoholics.** *Soc. Wk.*, 1962, 7(3), 102-107.—Short term psychotherapy of alcoholics has proven successful with as large a percentage of patients as longer therapeutic procedures. Short term therapy is most effective with nonchronic alcoholics who have good family and emotional resources; it is least effective where there is chronic alcoholism coupled with deep emotional disorders.—G. Elias.

3609. McCord, Hallack. (U. Colorado) **Hypno-therapy and alcoholism.** *J. Amer. Soc. Psychosom. Dent. Med.*, 1962, 9(3), 83.—24 psychotherapists responded to questionnaires which "were analyzed for clusters of opinion and thought." Considerable variance in both usage and successes were reported.—J. H. Manhold, Jr.

3610. Pittman, David J., & Snyder, Charles R. (Eds.) (Washington U., St. Louis, Mo.) **Society, culture, and drinking patterns.** New York: Wiley, 1962. xvii, 616 p. \$9.75.—Of 35 chapters in this comprehensive review of research utilizing the sociological approach to the study of deviant behavior, 23 are original for this volume. New studies in the

anthropological perspective introduce sections dealing with class, status, religion, ethnicity, age, sex, family, occupation, personality, role deviation, suicide, and crime. Systems of control are summarized.—*W. L. Wilkins.*

Sex Deviation

3611. Bolland, Gerhard. (U. Jena) *Über die Behandlung der psychogen bedingten Impotenz.* [Treatment of psychogenically caused impotence.] *Prax. Psychother.*, 1962, 7(3), 105-111.—The psychogenic causes and treatment of several cases of impotence are described by the Director of an East German polyclinic. The causes of the impotence described are comparatively superficial and are treated by encouraging self-understanding.—*W. Swartley.*

3612. Coates, S. *Homosexuality and the Rorschach test.* *Brit. J. med. Psychol.*, 1962, 35(2), 177-190.—"All the cases of homosexuality referred for Rorschach investigation to one psychologist at one clinic over a period of 6 years were considered (a) to investigate their response to treatment, (b) to find what aspects of the history, or of the Rorschach test, might predict the outcome. There are forty-five such cases: thirty-three over 21 years, twelve between 14 and 21 years. Ten (30%) of the adults and eight (67%) of the boys showed improvement. Those adult patients who had had some heterosexual experience and whose Rorschach records showed the 'catastrophic' reaction to card II appeared to have a greater probability of success in treatment."—*C. L. Winder.*

3613. Fazio, M., & Albano, I. *Osservazioni psicosociologiche su quaranta meretrici detenute.* [Psychosociological observations on forty prostitute inmates.] *Difesa. soc.*, 1962, 41(1), 126-137.—Findings of an inquiry about the socioeconomical background of 40 jailed prostitutes.—*L. L'Abate.*

3614. Garfield District staff of the Family Service Association. (Cleveland, O.) *Infidelity in women as a manifestation of a character disorder.* *Smith Coll. Stud. soc. Wk.*, 1962, 32(3), 180-198.—Analysis of 10 cases of sexual infidelity among female agency patients showed that their infidelity reflected character disorders which anteceded marriage. These women were seeking the mother love they had been denied in childhood, and they were using the excitement of extramarital affairs to fill the void left by this early lack.—*G. Elias.*

3615. Göppert, H. (U. Freiburg, Germany) *Personale sexualpathologie.* [Personal sexual pathology.] *Jb. Psychol. Psychother. med. Anthropol.*, 1960, 7(3-4), 228-242.—"The neuroses are primarily sexual crises." With this thesis the author approaches the sexual perversions as types of neuroses and considers them as crises of the existence which are experienced in the boundaries of childhood and maturity, selfishness and partnership, bisexuality and heterosexuality, childish dream world and reality, timelessness and finality. The Freudian theory concerning the edipus complex is modified and a psychoanalytic explanation of neurosis is enlarged. Support is provided from clinical cases, theories, and also studies of drawings of human figures with the inclusion of 6 actual examples. The meaning of the sexual crisis for human existence is proposed and evaluated.—*V. J. Bieleuskas.*

3616. Klintworth, Gordon K. (Duke U. Medical Cent., Durham, N. C.) *A pair of male monozygotic twins discordant for homosexuality.* *J. nerv. ment. Dis.*, 1962, 135(2), 113-125.—"A 20-year-old monozygotic twin pair discordant for male homosexuality is presented. The literature on male one-egg-twins that are alleged to be discordant for male homosexuality is reviewed. The absence of complete concordance for male homosexuality in monozygotic twins can be adequately explained in terms of well accepted genetic concepts. The homosexuality in the one twin can also be construed by psychoanalytic theories."—*N. H. Pronko.*

3617. Weisberg, Miriam. *Discussion: Role of the spouse in infidelity.* *Smith Coll. Stud. soc. Wk.*, 1962, 32(3), 199-204.—Agrees with the finding of the Garfield Report that infidelity among married women represents deeper character disorders and cites other cases which confirm this finding.—*G. Elias.*

Drug Addiction

3618. Clark, John A. (Crichton Royal, Dumfries, Scotland) *The prognosis in drug addiction.* *J. ment. Sci.*, 1962, 108(Whole No. 455), 411-418.—Of 120 patients seen from 1949 to 1960 at Crichton Royal, 65 belonged to medical or nursing professions, and 50 of these could be thoroughly followed up. Psychiatric illness preceded or accompanied addiction for 20 of the 50, and of these 13 showed previous sociopathic behavior; the other 30 showed no evidence of any psychological disorder. 28% overcame their addiction; 52% required further hospitalization. 30% had continued at their profession, but 26% had had no gainful employment following discharge from hospital. Prolonged hospitalization is recommended and the possibility of vocational counseling toward a different occupation is considered.—*W. L. Wilkins.*

3619. Frazier, T. L. *Treating young drug users: A casework approach.* *Soc. Wk.*, 1962, 7(3), 94-101.—Selective use of short term casework counseling is recommended, and some of the experiences of the author while using this technique with institutionalized late-adolescent addicts are related.—*G. Elias.*

3620. Headlee, C. P., Coppock, H. W., & Nichols, J. R. (U. Oklahoma) *Apparatus and technique involved in a laboratory method of detecting the addictiveness of drugs.* *J. Pharmaceut. Ass., Scient. Ed.*, 1955, 44(4), 229-231.—Following 14 daily injections, a significant increase in relative duration of a lateral head position occurred when that position caused morphine or codeine to be injected at 0.1 cc per min. A similar change occurred in previously uninjected animals when the head position caused injection of glucose, and an opposite change occurred when insulin was injected.—*Author abstract.*

3621. World Health Organization, Expert Committee on Addiction-Producing Drugs. *Eleventh report.* *WHO tech. Rep. Ser.*, 1961, No. 211. 16 p.—Notifications of new drugs characterised as addiction-producing together with the list of drugs under international narcotics control.—*J. C. Franklin.*

Suicide (& Homicide)

3622. Applebaum, S. A., & Holzman, P. S. (Menninger Found.) *The color-shading response and suicide.* *J. proj. Tech.*, 1962, 26(2), 155-161.—Color-shading determinant was found significantly

more among suicide and attempt groups than among controls. Color-shading responses are discussed in relation to suicide-potential as they reflect sensitive, articulate and penetrating, insightful activity with perhaps clarification of a single problem area and a resultant loss of overall perspective.—*A. F. Greenwald.*

3623. LeShan, Lawrence. (Inst. Applied Biology, NYC) **Cancer mortality rate: Some statistical evidence of the effect of psychological factors.** *Arch. gen. Psychiat.*, 1962, 6(5), 333-335.—The Pearson "r" between suicide and cancer mortality rates for 1914-1953 is found to be significant on the .01 level indicating that both may be influenced by a common factor. (21 ref.)—*L. W. Brandt.*

3624. Neuringer, Charles. (Suicide Prevention Cent., Los Angeles, Calif.) **Dichotomous evaluations in suicidal individuals.** *J. consult. Psychol.*, 1961, 25(5), 445-449.—Using a Semantic Differential Test, suicidal and psychosomatic Ss make more extreme value judgments and show greater differences between opposing concepts than do controls. "Dichotomous Evaluative Thinking seems to be a common characteristic of emotionally disturbed persons."—*E. R. Oetting.*

3625. Stengel, Erwin. (U. Sheffield, England) **Self-destructiveness and self-preservation.** *Bull. Menninger Clin.*, 1962, 26(1), 7-17.—The psychoanalytical literature on suicide is briefly surveyed. Suicidal acts (suicides and suicidal attempts) express the coexistence of the impulses springing from love and from hate. The majority function as alarm signals and appeals for help and thus reinforce the urge for self-preservation. Suicidal attempts should not be regarded as nothing but abortive suicides.—*W. A. Varvel.*

3626. Tuckman, Jacob, & Connon, Helen E. (Philadelphia Dept. Public Health) **Attempted suicide in adolescents.** *Amer. J. Psychiat.*, 1962, 119(3), 228-232.—A study was made of 100 consecutive attempted suicides by children and adolescents under the age of 18. An important finding concerns the association between attempted suicide on the one hand and family disorganization and delinquency on the other.—*N. H. Pronko.*

3627. Urban, William H. (Coll. Osteopathy & Surgery, Kirksville, Mo.) **Suicide: A cultural and semantic view.** *Ment. Hyg., N. Y.*, 1962, 46(3), 377-381.—After reviewing psychoanalytic and sociological (Durkheim) views of suicide, Urban discusses the linguistic and communicative aspects of suicide. He emphasizes the cultural implications, the connotations, and the great variety of denotative meanings of suicide.—*M. H. Lewin.*

CRIME & DELINQUENCY

3628. Alberts, William Edward. (Boston U.) **Measuring ministers' attitudes toward juvenile delinquency.** *Dissert. Abstr.*, 1961, 22(4), 1262.—*Abstract.*

3629. Bennett, L. A., & Rudoff, A. (California Dept. Correction, Sacramento) **Changes in direction of hostility related to incarceration and treatment.** *J. clin. Psychol.*, 1960, 16(4), 408-410.—Peizer's study, in which Rosenzweig P-F study was used on prisoners, showed that the incarceration of the Ss tended to shift their "extrapunitive" tendencies

to "intropunitive." This study used the same technique on younger Ss. The Ss included 300 randomly selected male adults, age 17-21, who besides being incarcerated were given therapeutic care. The results tended to support Peizer's findings, except that with the progress of therapy "intropunitive responses tended to decrease." However, there seemed to be no significant relationship between extrapunitive behavior and length or intensity of treatment.—*V. J. Bieliauskas.*

3630. Caditz, S. B. (King County Juvenile Court, Seattle, Wash.) **Effects of a forestry camp experience on the personality of delinquent boys.** *J. clin. Psychol.*, 1961, 17(1), 78-81.—17 boys were selected from 195 cases judged delinquent, by the value scores of the State of Washington, for the forestry program and were administered the MMPI, both before camp placement and 6 months later. The findings were compared with a similar group of boys assigned to a training school and with nondelinquents. A difference between the nondelinquents and the forestry camp and training school boys was evident in the Pd score on the MMPI. The findings showed a significant reduction of delinquent identification in the forestry camp as compared to the training school boys, although some delinquent attitudes still remained noticeable. The conclusion was drawn that, for some delinquent boys, the forestry camp experience is associated with improvement in social attitudes and level of emotional maturity.—*V. J. Bieliauskas.*

3631. Craddick, Ray A. (New Mexico State U.) **Selection of psychopathic from non-psychopathic prisoners within a Canadian prison.** *Psychol. Rep.*, 1962, 10(2), 495-499.—A check list of 12 items, developed from descriptions of psychopaths in psychiatric literature and ratings by 10 psychiatrists, was used to rate 118 male, literate, Canadian prisoners of average intelligence. Profiles from MMPI were compared for the 27 highest and 27 lowest scorers. "Differences beyond the .01 level were found between the groups on the Pd + .4K and Ma + .2K scales, and a difference beyond the .05 level for the Pt + 1K scale. A two-year follow up indicated that 16 of the psychopaths and 2 of the non-psychopaths were known to have returned to some Canadian prison. On the basis of these findings, the check list appears to be a useful instrument in differentiating the psychopath from the non-psychopath within a prison setting."—*B. J. House.*

3632. Deutsch, Martin. (New York Medical Coll.) **The 1960 swastika-smearings: Analysis of the apprehended youth.** *Merrill-Palmer Quart.*, 1962, 8(2), 99-120.—Information obtained by interviewing 41 youths apprehended after acts of swastika smearing and vandalism was supplemented with data from other sources. The group was widely scattered geographically; age range was 11-25; median age was 16. Of these Ss, 22 exhibited ideological commitment to either Nazism, racism and/or anti-Semitism. The nonideological group appeared to be engaging in imitative antisocial behavior. "For all the youth there is some combination of family instability, school failure, social pressure and community isolation, psychological inadequacy, absence of acceptable figures for identification, and a general . . . neglect of their needs." The author discusses implications for personality theory and contemporary America.—*E. L. Robinson.*

3633. Epstein, Eleanor M. The self concept of the delinquent female. *Smith Coll. Stud. soc. Wk.*, 1962, 32(3), 220-234.—The author was surprised that her study revealed "impressive similarities" between a delinquent and a nondelinquent group with regard to structural properties of the self. Significant differences were found, however, in the content of the self concept held by the 2 groups. The delinquent's self portrayal was more highly negativistic of self and of future goals, and less marked by group identification than was that of the nondelinquent.—G. Elias.

3634. Feder, Simon Maurice. (Columbia U.) Limited goals in short-term group psychotherapy with institutionalized adolescent delinquent boys. *Dissert. Abstr.*, 1961, 22(4), 1250.—Abstract.

3635. Greenstein, Jules M. (Rutgers U.) Father characteristics and sex-role identification in a delinquent group. *Dissert. Abstr.*, 1961, 22(5), 1716.—Abstract.

3636. Guze, Samuel B., Tuason, B. Vincente; Gattfied, Paul D., Stewart, Mark A., & Picken, Bruce. (Washington U., St. Louis) Psychiatric illness and crime with particular reference to alcoholism: A study of 223 criminals. *J. nerv. ment. Dis.*, 1962, 134(6), 512-521.—A systematic, structured psychiatric interview was carried out with 223 consecutive male criminals. 48% of the men received no psychiatric diagnosis exclusive of sociopathic personality. 52% were found to have some other psychiatric disorder. The prevalence figures for individual psychiatric disorders were as follows: alcoholism, 43%; drug addiction, 5%; anxiety neurosis, 12%; homosexuality, schizophrenia and epilepsy, 1% each; mental deficiency, dementia, and undiagnosed psychiatric illness, less than 1% each.—N. H. Pronko.

3637. Hersko, Marvin. Group psychotherapy with delinquent adolescent girls. *Amer. J. Orthopsychiat.*, 1962, 32(1), 169-175.—Some of the special problems of psychotherapy with delinquent adolescent girls are examined and, on the basis of 3 years of carrying out group therapy in a training school, suggestions for their solution are offered. The therapist must be accepting of feelings but not seduced into agreeing with complaints. Discussion should be focused on current interpersonal relationships. Therapist must be more authoritarian and yet more supporting than in work with adults. Countertransference problems require that the therapist understand his own conflicts and delinquent tendencies but still maintain the capacity to empathize with adolescent delinquents.—R. E. Perl.

3638. Kahn, Roy Max. (Boston U.) Level of aspiration in two types of delinquents. *Dissert. Abstr.*, 1961, 22(4), 1253.—Abstract.

3639. Kozeny, E. D. Experimentelle Untersuchungen zur Ausdruckskunde mittel photographisch-statistischer Methode. [Experimental investigation of physiognomy utilizing a photographic-statistical method.] *Arch. ges. Psychol.*, 1962, 114(1), 55-71.—Confrontation of 16 photographic composite portraits, produced from pictures of 730 criminals, demonstrated statistically significant dependence of the physiognomic character of these portraits on the respective category of crime from which

the criminals' pictures for the production of the composite portraiture had been taken.—K. J. Hartman.

3640. Lambo, T. Adeoye. (Aro Hosp., Abeokuta, Nigeria) Malignant anxiety. A syndrome associated with criminal conduct in Africans. *J. ment. Sci.*, 1962, 108(Whole No. 454) 256-264.—Morbidity fear of bewitchment is the commonest cause of acute anxiety states among detribalized, semi-educated Africans who form the bulk of the partially urbanized African society. 4 cases illustrating how this anxiety was followed or associated with criminal behavior of an aggressive type are detailed in patients who were not certifiably psychotic or mentally deficient.—W. L. Wilkins.

3641. Lederman, Donald George. (Washington State U.) Delinquency and the concept of identification. *Dissert. Abstr.*, 1961, 22(4), 1254.—Abstract.

3642. Lively, Edwin L., Dinitz, Simon, & Reckless, Walter C. Self concept as a predictor of juvenile delinquency. *Amer. J. Orthopsychiat.*, 1962, 32(1), 159-168.—A cross-sectional assessment of 12-15-year-old children in Akron suggests that the direction of socialization and an unfavorable or favorable self image are the most tangible components of insulation against or propulsion toward delinquency.—R. E. Perl.

3643. Majumdar, A. K., & Roy, A. B. Latent personality content of juvenile delinquents. *J. psychol. Res., Madras*, 1962, 6(1), 4-8.—The common Rorschach characteristics in the delinquent personality were found to be: high F%, increase in Ad responses, decrease in W responses, FM predominating M, high A%, low h%, and increase in d, dd, and add responses.—U. Pareek.

3644. Morris, Terence, & Morris, Pauline. (London School Economics, England) The experience of imprisonment. *Brit. J. Criminol.*, 1962, 2(4), 337-360.—The physical and psychological conditions at Petonville, a maximum security prison in North London, are described. Reactions to these conditions are seen as a function of the prisoner's perception and capacity to adjust. Sex was found to be a major problem of adjustment, and loss of identity and deprivation of autonomy and personal security also contribute to social and personal deterioration. Prisonization is defined as the "continuous and systematic destruction of the psyche . . . which may frequently make it impossible for the individual to act successfully in any normal social role." The typology of adaptation is described in terms of conformity, innovation, ritualism, retreatism, rebellion, and manipulation.—M. P. Argyropoulos.

3645. Myers, Georgie. Associaux et inadaptes devant le pretoire. [The asocial and maladjusted before the bench.] *Hyg. ment.*, 1961, 50(5), 329-345.—A lawyer discusses some of the factors, both psychological and sociological, responsible for criminal activity and juvenile delinquency. A major factor is the growth of egotism in the younger generation to the detriment of social consciousness and deference to the well-being of others. The time will come when we will no longer seek to punish public offenders, but to re-educate and rehabilitate.—W. W. Meissner.

3646. Naess, Siri. (U. Oslo) Mother separation and delinquency: Further evidence. *Brit. J. Criminol.*, 1962, 2(4), 361-374.—The study is an attempt to test John Bowlby's hypothesis on mother separation

and delinquency. In the 1st part of the study (1958) 42 Oslo delinquents constituted the experimental group; their nondelinquent brothers were used as controls. The results disconfirmed Bowlby's hypothesis. In the 2nd part of the study (1960) 3 more groups of delinquents were selected and compared. 2 of these were selected from the clientele of a child guidance clinic in Oslo and thus resembled Bowlby's sample. The results led to the conclusions that (a) early mother-child separations are more prevalent among delinquents, (b) separation frequency is higher among boys committing more serious offenses than among boys committing less serious offenses, (c) mother-child separation as such is a minor criminogenetic factor.—*M. P. Argyropoulos*.

3647. **Pesetsky, Fred John.** (Vanderbilt U.) Variability in the meaning of deviant behavior. *Dissert. Abstr.*, 1961, 22(4), 1259.—*Abstract*.

3648. **Purcell, John Francis.** (Fordham U.) Expressed selfconcept and adjustment in sexually delinquent and non-delinquent adolescent girls. *Dissert. Abstr.*, 1961, 22(3), 918.—*Abstract*.

3649. **Rao, C. K. Vasudeva.** Intelligence in a group of convicts: An analysis of 35 cases. *Trans. All-India Inst. Ment. Hlth.*, 1960, 1, 44-53.—Raven's Progressive Matrices, the Alexander passalong test, and Porteus Mazes were administered to 60 convicts. Delinquents were of below normal intelligence. Age, education, and socioeconomic conditions were positively correlated with intelligence. House breakers and those with multiple convictions had higher scores than other offenders.—*U. Pareek*.

3650. **Shelley, Ernest L. V., & Johnson, Walter F. Jr.** (Michigan Dept. Corrections) Evaluating an organized counseling service for youthful offenders. *J. counsel. Psychol.*, 1961, 8(4), 351-354.—An intensive group and individual counseling program led to greater decrease in anti-social responses on the Thematic Apperception Test than occurred in a matched group in a minimum security camp. Decrease in responses is significantly related to parole success.—*E. R. Oetting*.

3651. **Stickler, James Irwin.** (Temple U.) Some personality traits of juvenile delinquents as indicated by a rating technique utilizing the Symonds Picture-Story Test. *Dissert. Abstr.*, 1961, 22(3), 919.—*Abstract*.

3652. **Tiffany, T. L., Peterson, D. R., & Quay, H. C.** (U. Illinois) Types and traits in the study of juvenile delinquency. *J. clin. Psychol.*, 1961, 17(1), 19-24.—"For this investigation, Q-technique was used to analyze the responses of delinquent boys to carefully selected verbal stimuli. One hundred statements associated with previously defined Type-R dimensions of 'psychopathy,' 'neuroticism,' and 'inadequacy' were sorted by 103 delinquent boys into a five-class normal distribution, depending on the strength of agreement which each item evoked." Factor analytic evaluation of the data failed to show any structure in the data, suggesting that "delinquents did not 'naturally' group themselves into distinct types."—*V. J. Bieliauskas*.

3653. **Toby, Jackson.** (Rutgers U.) Criminal motivation: A sociocultural analysis. *Brit. J. Criminol.*, 1962, 2(4), 317-336.—In heterogeneous cultures conformity to accepted norms is achieved through (a) external factors (lack of opportunity to

learn criminal skills and fear of punishment), and (b) internal controls (guilt and shame). These are operative to varying degrees with the different individuals due to the diversity of socializing agents and group pressures. Crime arises when the temptation to violate a rule is stronger than the individual's guilt feelings and fear of social disapproval. "Socially disorganized" communities have high rates of criminality mainly because of low motivation to conform to society's rules. The criminal is defined as the person who has come to think of himself as a criminal.—*M. P. Argyropoulos*.

3654. **Toch, Hans. (Ed.)** (Michigan State U.) *Legal and criminal psychology*. New York: Holt, Rinehart & Winston, 1961. xviii, 426 p. \$6.00.—An extensive collection of articles by practitioners in the fields of law and correction and social scientists. The authors explore the psychological aspects of the process of criminal justice and treatment of the social offender. The 1st section covers topics such as trial tactics, jury system, and judicial behavior. The 2nd section concerns itself with the causes of criminal behavior, delinquency assessment techniques, and current correctional practices. A final section is devoted to the special problems of drug addiction, alcoholism, and sex offenses.—*S. Brozman*.

3655. **Wilson, Gordon Gilbert.** (U. Denver) Relationships among three measured levels of self-assessment, fantasy, coping activity and their relationships to ratings of real-life behavior. *Dissert. Abstr.*, 1961, 22(3), 921.—*Abstract*.

3656. **Yaker, Henri M.** (206 S. 4, Highland Park, N. J.) The Black Muslim in the correctional institution. *Welf. Reporter, Trenton*, 1962, 13, 158-165.—Following a historical review of the Black Muslim movement, its psychological significance and particular appeal to assaultive Negro offenders, the author reports on 2-year exploratory observations at the New Jersey State Prison. Following Weber's typology, Muslim and non-Muslim Negro and white armed robbery offenders were compared on a battery of projective and nonprojective tests. Findings for all 3 groups reflected weak psychosexual defenses, pathological hostility against women, and a need to aggressively deny homosexual impulses. For the Black Muslim, projection of the devil unto human form seemed to serve as a defense against unconscious, latent homosexual drives.—*H. P. David*.

3657. **Zenchelsky, Miriam.** (Rutgers U.) Cognition and fantasy in juvenile delinquency. *Dissert. Abstr.*, 1961, 22(5), 1719-1720.—*Abstract*.

PSYCHOSES

3658. **Azima, H., Lemieux, M., & Azima, Fern J.** *Isolement sensoriel: Étude psychopathologique et psychanalytique de la regression et du schema corporel*. [Sensory isolation: A psychopathological and psychoanalytical study of regression and physique.] *Evolut. psychiat.*, 1962, 27(2), 259-280.—A group of 18 psychotics and neurotics were given sensory deprivation experimentally for an average of 4 days. Changes were as follows: "Psychopathological changes characterized by alteration of body scheme in ten patients, positive hallucinosis in seven, negative hallucinosis in three, and some regressive behavior was evident in all patients. This latter consisted in primary delusional experiences in three pa-

tients, emergence of anal and oral behavior in seven and marked disinhibition particularly of aggressive drives in seven patients." (37-item bibliogr.)—L. A. Ostlund.

3659. Brodsky, Marvin Jerome. (U. Texas) Interpersonal stimuli as interference in a sorting task. *Dissert. Abstr.*, 1961, 22(6), 2068.—*Abstract.*

3660. Dinoff, M., Horner, R. F., Kurpiewski, B. S., Richard, H. C., & Timmons, E. O. (VA Hosp., Tuscaloosa, Ala.) Conditioning verbal behavior of a psychiatric population in group therapy-like situation. *J. clin. Psychol.*, 1960, 16(4), 371-372.—12 male hospitalized veterans described as schizophrenics between the ages 34-64, with a median age of 41, were divided into 2 matched groups of 6 Ss each. In the 1st group the P (personal) response and in the 2nd group the G (group) responses were reinforced. After each session the E left the room and the Ss were instructed to continue their discussion for another 50 min. These discussions were observed and behavior recorded by 2 judges. "Significant gains were obtained in both categories during conditioning, although the effect failed to generalize to any marked degree to another situation."—V. J. Bieliauskas.

3661. Dixon, N. F., & Lear, T. E. (University Coll., London, England) Perceptual regulation and mental disorder. *J. ment. Sci.*, 1962, 108(Whole No. 454), 356-361.—Perceptual input of neutral and of emotional-loaded words was regulated differently by normals and by schizophrenics and depressives. It is suggested that there is both a voluntary means of control, such as focusing attention, averting the eyes, turning the head away, and an automatic means of control on both input and output without awareness of the S.—W. H. Wilkins.

3662. Flinn, Don E. (Brooks AFB, Tex.) Transient psychotic reactions during travel. *Amer. J. Psychiat.*, 1962, 119(2), 173-174.—22 cases of transient psychoses termed travel syndrome are discussed as they occurred in the military setting during travel under somewhat "isolated" conditions among strangers, with the usual inactivity, monotony, unaccustomed surroundings, presence of strangers and absence of accustomed social relationships.—N. H. Pronko.

3663. McCarter, Robert Earl. (Princeton U.) Affective components of early recollections. *Dissert. Abstr.*, 1961, 22(6), 2090.—*Abstract.*

3664. Schwartz, D. A. (Mental Health Service, Los Angeles, Calif.) Paradoxical remission of psychosis. *Arch. gen. Psychiat.*, 1962, 6(4), 315-319.—3 cases are reported in which combined somato and psychotherapy showed no effect and had to be abandoned to the distress of the therapist and staff. Remission began immediately and continued over follow-up period. Speculative explanations of the phenomenon are the patients' reaction to the staff's ceasing to "try to make them get well," to the "shift from hope to hopelessness in the professional interpersonal environment" and a show of omnipotence by recovering without assistance.—L. W. Brandt.

3665. Shapiro, M. B., Slater, P., & Campbell, D. (Inst. Psychiat., London, England) The effects of distraction on psychomotor slowness in co-operative, depressed, and schizophrenic subjects. *Brit. J. soc. clin. Psychol.*, 1962, 1(2), 121-126.—De-

pressed, schizophrenic, and normal Ss were given the Porteus Maze test under ordinary and "distraction" conditions. "Distraction had a significant effect in speeding up the starting times for all three groups; it affected the tracing times of the depressed and schizophrenic subjects similarly, but did not affect the normal subjects' tracing times. It is concluded that the outcomes of distraction experiments seem to be a function of the nature of the conditions, the distractions and the tasks involved, and that systematic further investigations of the effects of these factors is necessary before precise theory-making can become possible."—C. M. Franks.

3666. Vox, C. A. L'enuresi e il suo valore medico-sociale. [Enuresis and its medical and social significance.] *Difesa soc.*, 1962, 41(1), 93-111.—A review of the most recent literature has shown that enuresis can be considered as a reactive psychosis against familial or societal (in the case of soldiers) deprivations and frustrations.—L. L'Abate.

3667. Wadsworth, W. V., Wells, B. W. P., & Scott, R. F. (Cheadle Royal Hosp., Cheshire, England) A comparative study of the fatigability of a group of chronic schizophrenics and a group of hospitalized non-psychotic depressives. *J. ment. Sci.*, 1962, 108(Whole No. 454), 304-308.—6 schizophrenics and 5 depressives are compared on a hat construction test. Modification of work patterns may be necessary so that type of task is appropriate for the patient. When output is closely checked the schizophrenics do as well as the depressives but fall off more when supervision ceases. It is suggested that schizophrenics' work efficiency may depend upon conditions that help pace them and provide environmental cues as to performance—this helps to offset the supposed breakdown of the internal reality principle.—W. L. Wilkins.

Schizophrenia

3668. Ayllon, T., & Haughton, E. (Saskatchewan Hosp.) Control of the behavior of schizophrenic patients by food. *J. exp. Anal. Behav.*, 1962, 5(3), 343-352.—In order to use food as a reinforcer for controlling psychotic behavior, certain eating problems had to be investigated first. Approximately 50% of the ward population had a history of refusal to eat. Neither physical treatments nor social reinforcement, in terms of coaxing or persuading, worked. Moreover, the latter tended to condition patients to eat only with assistance. When refusal to eat was no longer followed by social reinforcement the patients soon started eating unassisted. When access to the dining room was made dependent upon a chain of responses, including a motor and social component, all patients learned these responses.—J. Arbib.

3669. Biran, S. Richteges und falsches am ätiologischen Konzept der Schizophrenie als einer Erlebnisreaktion. [True and false in the concept of schizophrenia as an experience reaction.] *Acta psychother. psychosom.*, Basel, 1962, 10(1), 26-44.—Intrafamilial trauma as a cause of schizophrenia is only a partial explanation. To the preparatory repression-creating causes and the direction-giving causes which enforce pathological functions of neurosis, the author adds a 3rd group to schizophrenia, namely, the causes of regression, exclusively endogenous in nature. He draws a sharp line of demarca-

tion between reactions against experiences and psychological disturbances.—G. Rubin-Rabson.

3670. Block, J. (U. California, Berkeley) A perspective on the MacAndrew-Geertsma reanalysis. *J. clin. Psychol.*, 1961, 17(1), 88-90.—This paper presents a response to an article by MacAndrew and Geertsma (see 37: 3700) and their criticisms of a paper by Jackson, Block, Block, and Patterson (see 33: 8787). The differences between oblique and orthogonal rotations and the methodological differences in both approaches are pointed out. Also the semantic differences in describing the schizophrenogenic mothers were compared and their militantly high degree of agreement was pointed out.—V. J. Bieliauskas.

3671. Briggs, David Warren. (Boston U.) Risk-taking behavior of schizophrenics and normals. *Dissert. Abstr.*, 1961, 22(3), 911.—Abstract.

3672. Caputo, Daniel Vincent. (U. Illinois) Characteristics of the parents of schizophrenics. *Dissert. Abstr.*, 1961, 22(5), 1713.—Abstract.

3673. Chapman, James, & McGhie, Andrew. (U. St. Andrews, Scotland) A comparative study of disordered attention in schizophrenia. *J. ment. Sci.*, 1962, 108 (Whole No. 455), 487-500.—On 5 different tests of attention, schizophrenics could be distinguished from nonschizophrenic patients and from normals. Hebephrenics performed at a significantly low level.—W. L. Wilkins.

3674. Clarke, Alan Rogers. (Duke U.) Conformity behavior of schizophrenic subjects to maternal figures. *Dissert. Abstr.*, 1962, 22(12), 4404-4405.—Abstract.

3675. Cowden, R. C., & Ford, L. I. (VA Hosp., Pittsburgh, Pa.) Systematic desensitization with phobic schizophrenics. *Amer. J. Psychiat.*, 1962, 119(3), 241-245.—2 illustrative cases are presented of schizophrenic patients with phobic reactions that yielded to gradual, systematic desensitization, a therapeutic technique recommended "for some schizophrenic subjects."—N. H. Pronko.

3676. Culver, Charles Marriott. (Duke U.) The effect of cue value on size estimation in schizophrenic subjects. *Dissert. Abstr.*, 1962, 22(12), 4405.—Abstract.

3677. Delay, J., Deniker, P., & Green, A. Le milieu familial des schizophrènes: III. Résultats et hypothèses. [The family milieu of schizophrenics: III. Results and hypotheses.] *Encephale*, 1962, 51(1), 5-73.—Clinical findings and family backgrounds of 50 schizophrenics are discussed and detailed histories of 15 patients are presented. Genetic, phenomenological, and psychoanalytic approaches to the etiology of schizophrenia are evaluated. The study focuses on the influence of the parental role in the social environment of the patient's family. The following conclusions are drawn: (a) the characteristics of the family milieu should be considered in diagnosis; (b) therapy should include the parents as well as the patient, either individually or in a group, and its objective should be "autonomisation" of the patient by disengaging him from encumbering fixations and identifications; and (c) the problem is raised, in regard to prognosis, of the manner of separation from the patient's natural milieu. (53 ref.)—W. W. Meissner.

3678. de Simone, G. (U. Lausanne) La catatonie pernicieuse: Existe-t-elle encore? [Does pernicious catatonia still exist?] *Encephale*, 1962, 41(1), 74-83.—The history of the syndrome is reviewed and 4 cases presented. Conclusions: (a) the percentage of catatonia issuing in death is very small, (b) the cases presented all showed pathological lesions from independent factors, (c) the progressive decrease in frequency suggests that pernicious catatonia should not be distinguished from other catatonias and that fatalities have been due to other undiagnosed factors. (31 ref.)—W. W. Meissner.

3679. DeWitt, Charles Robbins. (U. Houston) Some behavioral characteristics of a sub-group of female ambulatory schizophrenics. *Dissert. Abstr.*, 1961, 22(6), 2068-2069.—Abstract.

3680. Dinoff, M., Horner, R. F., Kurpieyski, B. S., & Timmons, E. O. (VA Hosp., Tuscaloosa, Ala.) Conditioning verbal behavior of schizophrenics in a group therapy-like situation. *J. clin. Psychol.*, 1960, 16(4), 367-370.—10 male hospitalized chronic schizophrenic patients with the mean age of 39.5 years were divided into 2 matched groups of 5 Ss each. The 1st group was seen for 6 50 min. sessions whereby the examiner attempted to elicit with questions and reinforce by his approval the P (personal) responses 5 times from each S each hour. Group II was similarly treated, but with the reinforcement of G (group) responses "using a newly developed, easily scored and highly reliable scoring system, individual responses were established in a group situation with a schizophrenic population." Although the effect of the verbal conditioning did not show a long lasting change in verbal behavior of the patients, it appeared that the experimental procedure suggested a brief but significant change in a group situation with schizophrenics.—V. J. Bieliauskas.

3681. Farahmand, Saied Shamlu. (Washington State U.) Personality characteristics and child-rearing attitudes of fathers of schizophrenic patients. *Dissert. Abstr.*, 1961, 22(4), 1250.—Abstract.

3682. Feldstein, S. (Teachers Coll., Columbia U.) The relationship of interpersonal involvement and affectiveness of content to the verbal communication of schizophrenic patients. *J. abnorm. soc. Psychol.*, 1962, 64(1), 39-45.—To analyze the effect of close interpersonal contact on the communication process of schizophrenics, 30 hospitalized male schizophrenics were asked to associate to TAT-like cards under 2 conditions of E-involvement. The condition of close personal contact was where E interviewed S directly, made use of personal pronouns, and attempted to promote a relatively close relationship; the condition of remote personal contact was where S received nonpersonalized instructions from a tape recorder operated by E. As compared to 30 hospitalized medical patients, content of speech of the schizophrenic patients was indistinguishable from controls except for irrelevancies. Degree of personal contact did not seem to affect S's communication.—G. Frank.

3683. Felice, Antonio. (Temple U.) Some effects of subject-examiner interaction on the task performance of schizophrenics. *Dissert. Abstr.*, 1961, 22(3), 913.—Abstract.

3684. Ferster, C. B., & DeMyer, Marian K. A method for the experimental analysis of the be-

havior of autistic children. *Amer. J. Orthopsychiat.*, 1962, 32(1), 89-98.—The behavior repertoires of 3 autistic children were widened significantly in an experimental room using the techniques of operant reinforcement. It may be possible that the same potential for behavioral change would exist in the social milieu if the proper conditions could be generated.—R. E. Perl.

3685. Foulds, G. A., Dixon, Penelope; McClelland, Marilyn, & McClelland, W. J. (Runwell Hosp., Wickford, Essex) The nature of intellectual deficit in schizophrenia: II. A cross-sectional study of paranoid, catatonic, hebephrenic and simple schizophrenics. *Brit. J. soc. clin. Psychol.*, 1962, 1(2), 141-149.—"Progressive Matrices (1938) and Mill Hill Vocabulary scores of 270 schizophrenics were analysed in relation to sex, length of hospitalization, age and diagnostic subgroup. Men were significantly superior to women in all subgroups on both tests. Hospitalization period contributed little to the results over and above its inevitable relationship with age. The negative relationship between PM scores and age was similar in schizophrenics and neurotics. This and other evidence led to the conclusion that impairment was non-progressive and largely confined to the period between the onset of the illness and first admission. Consistent differences were found between the subgroups independent of the sex difference, catatonics showing the most differential impairment of intellectual ability."—C. M. Franks.

3686. Freeman, Thomas. (Glasgow Royal Mental Hosp., Scotland) A psycho-analytic approach to the diagnosis of schizophrenic reactions. *J. ment. Sci.*, 1962, 108(Whole No. 454), 286-299.—Cognitive organization in a normal state of attention, in the dream state, and in chronic schizophrenia can be studied so that clear differentiations are possible. Ego psychology can help distinguish the features of condensation and lack of discrimination which typify the schizoid process, and the examiner must also note dedifferentiation and primitivization of concepts. Whether paranoid delusions and auditory hallucinations—other textbook features of the disease—are as crucial as cognitive disturbance is a matter for research.—W. L. Wilkins.

3687. Gilgash, C. A. (MacMurray Coll.) Thorazine therapy with catatonic schizophrenics in relation to Wechsler Verbal and Performance subtest comparison. *J. clin. Psychol.*, 1961, 17(1), 95.—2 groups of catatonic schizophrenic patients matched for age, sex, intelligence, and admission diagnosis were used in this study. The experimental group was administered a daily dose of 300 milligrams of thiorazine for 30 days and the control group was administered a placebo. When retested with the Wechsler-Bellevue Intelligence Scale the experimental group showed a marked improvement in their IQs, as compared with the control group. Noticeable differences were also found in Verbal and Performance subtest comparisons.—V. J. Bieliauskas.

3688. Goldman, A. E. (National Analysts) Symbol consensus and univocality in schizophrenia. *J. proj. Tech.*, 1962, 26(3), 288-294.—Compared with normals there is less agreement between schizophrenics on the symbolic expression of affect through linear drawings. Schizophrenics also manifest a more primitive, undifferentiated pattern of affective re-

sponse as seen in their choice of identical lines to represent opposite mood-terms.—A. Greenwald.

3689. Goldman, Arnold Robert. (Stanford U.) The effects of dependency and dependency-anxiety on schizophrenics' rate of learning under conditions of social reward and punishment. *Dissert. Abstr.*, 1961, 22(6), 2063.—Abstract.

3690. Salmon, Vernon, & Salmon, Phillida. (Springfield Hosp., London, England) Psychological changes in chronic schizophrenics following differential activity programmes. *J. ment. Sci.*, 1962, 108(Whole No. 455, 505-520.—Comparisons of outcomes from traditional occupational therapy and quasi-industrial work in a workshop was made for male long-stay nonparanoid schizophrenics of age 20-40 and checked by changes on a variety of psychological tests and clinical ratings. Behavioral changes were associated with flat rate monetary reward for work; holding absenteeism constant, output and earnings were greater for patients working as teams than for patients working individually.—W. L. Wilkins.

3691. Herron, William G. (St. Bonaventure U.) Abstract ability in the process-reactive classification of schizophrenia. *J. gen. Psychol.*, 1962, 67, 147-154.—30 process schizophrenics and 30 reactive schizophrenics were delineated according to Ego-Strength scale scores. These patients were subsequently divided into a process group of 21 and a reactive group of 21 on the basis of agreement between ES scores and psychiatric ratings. A normal control group was also used. All Ss were given tests of abstract ability and mean scores of the groups on each test were compared. The abstract ability of the process group was significantly inferior to that of the reactives and normals. A significant difference in abstract ability between reactives and normals occurred on a less consistent basis. The results suggest 2 polar constellations of schizophrenia: a process type characterized by poor prognosis and gross impairment of abstract ability, and a reactive type characterized by good prognosis and slight impairment of abstract ability.—Author abstract.

3692. Jackson, Don D. Schizophrenia. *Scient. American*, 1962, 207(2), 65-78.—The study of schizophrenia must include a study of its investigators. They have tended to gravitate toward 1 or 2 extremes: to investigation of some easily isolated and controllable aspect of the patient, or to generalized sociological observations. The largest effort has gone into the search for some neat biological explanation at the expense of broader research. The accumulating literature proves that there will be no such simple answer to schizophrenia. Evidence for the psychosocial nature of schizophrenia has been mounting for the past 10 years.—L. A. Waack.

3693. Kantor, Robert E., & Jackson, Don D. (Palo Alto Medical Research Found., Palo Alto, Calif.) Some assumptions in recent research on schizophrenia. *J. nerv. ment. Dis.*, 1962, 135(1), 36-42.—"The present paper has proposed that flourishing lines of inquiry into the nature of schizophrenia (citing family, Rorschach and mental hospital studies) have been nourished by the particular position of the social scientist—a position that adds new dimensions to the traditional psychiatric inquiries. The adoption of this particular position bypasses the study of the biology of schizophrenia but, of course, does not exclude or supersede it; in

our present state of darkness, illumination from any direction seems equally beneficial.—N. H. Pronko.

3694. King, H. E. (U. Pittsburgh School Medicine) Two-flash and flicker fusion thresholds for normal and schizophrenic subjects. *Percept. mot. Skills*, 1962, 14(3), 517-518.—The findings indicate, clearly, that critical flicker-fusion and 2-flash fusion measure separate functions, and that the interflash-interval determined with the same optical and stimulating system is decidedly different for each sample, an interflash-interval of between 2 and 3 times greater duration being required for TFF resolution than at threshold CFF. Neither test served to distinguish normal from schizophrenic performance.—W. H. Guertin.

3695. Knehr, Charles A. (Payne Whitney Psychiatric Clinic) Psychological assessment of differential impairment in cerebral organic conditions and in schizophrenics. *J. Psychol.*, 1962, 54(1), 165-189.—A comparison of the performances of acute schizophrenics, organics, and controls on a battery of 10 tests indicates that tests of abstract intellectual ability tend to be most sensitive to both psychopathological thinking impairment and organic changes and are therefore the least likely to differentiate organic factors from functional. Impaired performances, when observed on several other tests with negligible factor loadings on g functions, indicate the presence of cerebral dysfunction with a minimal number of false positives.—Author abstract.

3696. Lerner, Mildred Sherwood. (New York U.) The relationship of certain aspects of the body image of female schizophrenic patients to therapeutic success or failure. *Dissert. Abstr.*, 1962, 22(12), 4408-4409.—Abstract.

3697. Losen, Stuart M. (U. Buffalo) The differential effects of censure on the problem-solving behavior of schizophrenic and normal subjects. *J. Pers.*, 1961, 29(3), 258-272.—"Methods . . . were designed to direct attention to the task and thus produce performance increment by mildly censuring Ss' incorrect responses. . . . In agreement with expectation, no significant increment or decrement was obtained . . . with any of the normal groups on either the arithmetical reasoning, or digit-span tasks." However, the major hypothesis, that censure would effect an increment in the performance of "good pre-morbid" schizophrenics, was confirmed.—G. T. Lodge.

3698. Lu, Yi-Chuang. (Manteno State Hosp., Ill.) Contradictory parental expectations in schizophrenia: Dependence and responsibility. *Arch. gen. Psychiat.*, 1962, 6(3), 219-234.—Preliminary findings from intensive interviews with 50 chronic schizophrenics with nonschizophrenic siblings, (preferably under 35, white, grade school educated, and of lower class) and from similar interviews with the patient's parents, siblings, and significant others indicate "(1) contradictory parental expectations regarding dependence and independence . . . coupled with the preschizophrenic child's persistent efforts in compliance with both expectations; (2) certain experiences at birth or during infancy that incline both the parents and the preschizophrenic child to interact in the contradictory ways as described; and (3) certain sociocultural situations which heighten to the critical point the dilemma" contribute to the development of

schizophrenia in this sample. (21 ref.)—L. W. Brandt.

3699. Ludwig, Arnold M., Wood, Benjamin S., Jr., & Downs, Marion P. (U. Colorado Medical Cent., Denver) Auditory studies in schizophrenia. *Amer. J. Psychiat.*, 1962, 119(2), 122-127.—A pilot study with 54 schizophrenics and 54 control Ss utilizing 5 audiometric tests showed no differences on the pure tone and speech reception thresholds. Schizophrenics did show "more abnormalities than controls on the tone decay, delayed auditory feedback and signal-to-noise ratio tests."—N. H. Pronko.

3700. MacAndrew, C., & Geertsma, R. H. (U. California, Los Angeles, School Medicine) A reanalysis of "Psychiatrists' Conceptions of the Schizophrenogenic Parent." *J. clin. Psychol.*, 1961, 17(1), 82-87.—Q-sort descriptions of the images of the schizophrenic mother given by 20 experienced psychiatrists as reported by Jackson, Block, Block, and Patterson (see 33: 8787) were reanalyzed. "Three conceptualizations of the schizophrenogenic mother were obtained from the reanalysis: (1) the 'hostile, rejecting mother' whose excessive guilt and general insecurity result in a pervasive emotional isolation from others. (2) the 'unbending mother' whose rigid superego controls and lack of flexibility may be viewed as reflecting a form of neurotic strength of character. (3) the 'fearful, inadequate mother' whose excessive guilt and insecurity are handled by a flight into anonymity and conventionality, resulting in a near-total suppression of all self-expression." These findings suggested significant differences between this study and the original study.—V. J. Bieliauskas.

3701. Marchionne, A. M. (Washington State U.) Cognitive and drive properties of censure in schizophrenic learning. *Dissert. Abstr.*, 1961, 22(4), 1256.—Abstract.

3702. Marx, Alfred. (U. Oklahoma) The effect of interpersonal content on conceptual task performance on schizophrenics. *Dissert. Abstr.*, 1962, 22(12), 4410.—Abstract.

3703. May, A. R., & Robertson, J. P. S. (Warrington Park Hosp., Surrey, England) The efficacy of habit training in chronic schizophrenia. *J. clin. Psychol.*, 1960, 16(4), 359-361.—The "habit training" technique used in Great Britain, aimed at the rehabilitation of severely disorganized schizophrenics which is equivalent to Myerson's "total push" technique, was examined on an experimental group of 10 patients with a matched control group. The patients in the control group were presented with a varied program of social activities and entertainment. Patients in the experimental group were given special rewards for doing well in any respect, while patients in the control group did not receive any rewards. "The results indicated that the habit training of chronic schizophrenics does not produce changes for the better in general alertness, practical efficiency, or social adaptability; but does produce an improvement of care in personal appearance which is sufficiently firm to survive 48 hrs. without aid or stimulation from nurses."—V. J. Bieliauskas.

3704. Mersky, H., Gillis, A., & Marszalek, K. S. (U. Sheffield) A clinical investigation of reactions to pain. *J. ment. Sci.*, 1962, 108(Whole No. 454), 347-355.—Both hyperactive and hypoactive patients on a ward scored higher than normally active pa-

tients on tests with a pressure algometer. Paranoid patients reacted somewhat less than normals. Assuming inability to respond to stimulation from lack of activity on the ward is a mistake with schizophrenic patients.—*W. L. Wilkins.*

3705. Muira, T. (U. Keio, Tokyo, Japan) *Le syndrome schizophrénique et la maladie schizophrénie, envisagés dans la psychiatrie japonaise.* [The schizophrenic syndrome and schizophrenia in Japanese psychiatry.] *Encephale*, 1961, 50(5), 471-477.—Japanese psychiatric thinking about schizophrenia reflects the dominant influence of German thought, particularly of Jaspers and Schneider. The influence of American dynamic psychiatry has noticeably increased in recent years. Current points of discussion relative to the understanding of schizophrenia in Japanese circles are sketched.—*W. W. Meissner.*

3706. Pontius, A. A. (Worcester State Hosp.) *Role of hallucinatory experiences of rhythmical movements during ego re-integration in a schizophrenic man.* *Percept. mot. Skills*, 1962, 14(3), 439-473.—A detailed account of schizophrenic hallucinations of movements is given and discussed in regard to the re-integration of various ego functions as well as some aspects of the body schema. Hypothesized is a role probably played in this integration process by patterns of rhythmical movement experiences which are related primarily to the activities of the autonomic nervous system. (78-item bibliogr.)—*W. H. Guertin.*

3707. Reisman, Marvin Norman. (U. Buffalo) *Size constancy in schizophrenics and normals.* *Dissert. Abstr.*, 1961, 22(4), 1261.—*Abstract.*

3708. Roos, Philip, & Lewis, Jerry M. (Psychological Services, Austin, Tex.) *Differential abstraction deficits in a normal population.* *J. nerv. ment. Dis.*, 1962, 134(6), 535-538.—"The ability to abstract proverbs of oral, anal, phallic and nonsexual content was studied in 167 university students. The results were highly similar to those reported by Lewis for schizophrenics. No sex differences were found, but performance on the proverbs test was significantly related to intelligence as measured by the Otis Higher Examination. The findings raise serious doubts regarding earlier conclusions that schizophrenics are distinguished from normals by a differential abstraction deficit related to psychosexual content of proverbs."—*N. H. Pronko.*

3709. Scarinci, Adele. *Betrachtungen über einige psychopathologische Züge der beginnenden Schizophrenie.* [Psychopathological features of incipient schizophrenia.] *Acta paedopsychiat.*, Basel, 1962, 29(3), 65-76.—Incipient schizophrenia in 13-21 year old patients is manifest in slowly developing symptoms: weakening of ties to the outer world, to parents and friends, progressive self-isolation, concern with own bodily structures. No symptom alone is conclusive; taken together, the diagnosis is probably schizophrenia. Individual symptoms may previously have been treated on a neurasthenic, hysterical or obsessive-neurotic basis.—*G. Rubin-Rabson.*

3710. Schnore, Morris M. *Re-evaluation of an activity treatment programme with regressed schizophrenic patients.* *Canad. Psychiat. Ass. J.*, 1961, 6(3), 158-162.—This study was a further evaluation of an activity treatment program with 14

severely regressed male schizophrenic patients. A comparison with a control group revealed that a 2-year participation in the program produced improved intellectual functioning, a decrease in schizophrenic symptoms, and a consequent improvement in hospital adjustment. The findings have been interpreted as supporting the thesis that the progressive regression and deterioration often observed in long standing cases of schizophrenia might be largely due to the relative lack of social and physical stimulation.—*Author abstract.*

3711. Sen, M. N., & Sunderaraj, N. *Statistical studies on hospitalized mental patients. Part IV.* *Trans. All-India Inst. Ment. Hlth.*, 1960, 1, 39-43.—The analyses of symptom patterns in schizophrenia indicate: auditory and visual hallucinations and delusions of persecution and grandeur seem to occur more frequently in the early stages of illness (less than 6 months); fluctuation of attention is more marked in the early stages than in the later stages; impairment of intellect and memory, anxiety, depression, suspiciousness, and disharmony show a tendency to increase with longer duration of illness; and anxiety, orientation, insight, and judgment are more frequent in the acute onset, while delusion of persecution and suspiciousness are slightly more frequent in insidious onset. The intercorrelation matrix of 18 symptoms is presented, which shows the possible presence of a common factor underlying the cognitive functions.—*U. Pareek.*

3712. Silverman, L. N., Lapkin, B., & Rosenbaum, I. S. (U. Pennsylvania) *Manifestations of primary process thinking in schizophrenia.* *J. proj. Tech.*, 1962, 26(1), 117-127.—Global assessment of thinking disturbance successfully differentiated between schizophrenic and nonschizophrenic Rorschachs. Primary process thinking was manifested to a significantly greater degree in the Rorschachs of schizophrenics.—*A. F. Greenwald.*

3713. Smock, Charles D., & Vancini, John. (Purdue U.) *Dissipation rate of the effects of social censure in schizophrenics.* *Psychol. Rep.*, 1962, 10(2), 531-536.—"Thirty schizophrenics and 30 controls learned appropriate motor responses to each of 14 nouns under Reward (15 Ss) and Social Censure (15 Ss) conditions to a criterion of 10/14 correct. After a 2-min. rest period, each S relearned the list to one perfect trial. Schizophrenics required more trials to reach the original criterion and those in the censure group had significantly less reminiscence. The slower rate of dissipation of interfering response in the schizophrenic-censure group lends support to Mednick's reciprocal augmentation theory."—*B. J. House.*

3714. Wadsworth, W. V., Scott, R. F., & Wells, B. W. P. (Cheshire Royal Hosp., Cheshire, England) *The employability of chronic schizophrenics.* *J. ment. Sci.*, 1962, 108(Whole No. 454), 300-303.—In a comparative situation, 12 patients, of average hospital stay of 17 years, produced 34% as much as 12 normal workers. If a sheltered factory employing patients each of whom produced 1/3 as much as an ordinary worker is assessed on a straight cost basis the productivity of the workers might well be sufficient to pay nearly all costs, even most of the cost of charge nurses who would have to supervise the patients in any situation.—*W. L. Wilkins.*

3715. Wadsworth, W. V., Wells, B. W. P., & Scott, R. F. (Cheshire Royal Hosp., Cheshire, England) A comparative study of chronic schizophrenics and normal subjects on a work task involving sequential operations. *J. ment. Sci.*, 1962, 108(Whole No. 454), 309-316.—Normals show decrements in both speed and accuracy as task complexity increases; schizophrenics tend to maintain speed but have a considerable loss in accuracy. Semi-complex psychomotor tasks which involve attention and distractibility are difficult for schizophrenics who are liable to work uncritically. Work tasks for psychotics must be kept simple—with very few choices to be made.—*W. L. Wilkins.*

3716. Webster, Frances R., Goldstone, Sanford, & Webb, Warren W. (Houston State Psychiatric Inst.) Time judgment and schizophrenia: Psychophysical method as a relevant contextual factor. *J. Psychol.*, 1962, 54(1), 159-164.—Previous findings of greater overestimation of short auditory durations with a method of limits procedure by schizophrenic Ss were reexamined with the method of constant stimuli. Healthy, schizophrenic, other psychiatric, and physically disabled Ss judged auditory inputs as more or less than their concept of one clock second along a 9 point category scale. The fixed, predetermined constant method did not produce the patient control differences obtained with the more instrumental method of limits. Schizophrenic Ss used fewer judgment categories but this appeared more a function of severity of illness and presence or absence of psychopathology than of the illness schizophrenia. The results are discussed in terms of the implications of contextual and population factors in the study of psychopathology.—*Author abstract.*

3717. Weiner, Irving B. (U. Rochester School Medicine & Dentistry) Three Rorschach scores indicative of schizophrenia. *J. consult. Psychol.*, 1961, 25(5), 436-439.—3 Rorschach signs—1 or 2 CF, Sum C between 1.5 and 3.0, and C or CF without C—are significantly discriminating in 3 studies and recommended for inclusion among criteria for schizophrenia.—*E. R. Oetting.*

3718. Wright, David J., Goldstone, Sanford, & Boardman, William K. (Baylor U. Coll. Medicine) Time judgment and schizophrenia: Step interval as a relevant contextual factor. *J. Psychol.*, 1962, 54(1), 33-38.—Previous findings of greater overestimation of short auditory durations by schizophrenic Ss were reexamined by studying the differential effect of an arithmetic and a geometric stimulus series. Although patients and controls differed with the arithmetic series as before, this difference disappeared with the geometric step interval. These results were considered in light of possible intra-serial anchor effects.—*Author abstract.*

3719. Zlotowski, Martin. (Michigan State U.) The uniqueness, novelty, complexity, and variability of response in process and reactive schizophrenics. *Dissert. Abstr.*, 1962, 22(12), 4416-4417.—*Abstract.*

Affective Disorders

3720. Adams, Anne, & Foulds, G. A. (Runwell Hosp., Wickford, Essex, England) Depression and personality. *J. ment. Sci.*, 1962, 108(Whole No. 455), 474-486.—17 psychotic and 20 neurotic depressive women were administered a battery which in-

cluded personality inventory type items and diagnostic items. The patients who improved changed on diagnostic test classifications but not on personality measures. Implications for classification are drawn from the greater stability of personality measures.—*W. L. Wilkins.*

3721. Becker, Ernest. (State U. Medical Cent., Syracuse, N. Y.) Toward a comprehensive theory of depression: A cross-disciplinary appraisal of objects, games and meaning. *J. nerv. ment. Dis.*, 1962, 135(1), 26-35.—New trends in conceptualizing the dynamics of depression are pulled together so that they may stand out in full relief for a theory of depression.—*N. H. Pronko.*

3722. Becker, Joseph; Spielberger, Charles D., & Parker, Joseph. (Duke U.) On the relationship between manic-depressive psychosis and inner-directed character. *J. soc. Psychol.*, 1962, 57(1), 149-153.—Arieti hypothesizes that there may be a relation between the prevalence of inner-directed personality within a culture and the incidence of manic-depressive psychosis. An alternative hypothesis to Arieti's is proposed: It may be the transition within a culture from inner to other direction (i.e., their coexistence) which tends to elicit the conflicts and character structure typically accompanying the manic-depressive disorder. A crucial dilemma which Riesman describes as characterizing individuals in cultures undergoing such transformation is strikingly similar to one frequently engendered by the socialization process of manic-depressives as delineated by Cohen et al. This dilemma centers about the conflicts involved in reconciling strongly inculcated achievement drives with needs for peer approval. The value of linking psychopathological character types with ones derived from sociopsychological investigations is discussed.—*Author abstract.*

3723. Bulatao, Jaime Carlos. (Fordham U.) The direction of aggression in clinically depressed women. *Dissert. Abstr.*, 1961, 22(4), 1249.—*Abstract.*

3724. Martin, Irene, & Davies, Brian M. (Inst. Psychiatry, U. London, England) Sleep thresholds in depression. *J. ment. Sci.*, 1962, 108(Whole No. 455), 466-473.—Intravenous sodium amytal sleep thresholds for 30 depressed patients and 12 normals show no differences between varieties of depressed patients nor normals. Personality inventory scores were higher, on neuroticism and anxiety, for the patients, but these scores were not related to the sleep threshold data.—*W. L. Wilkins.*

3725. Ryle, Anthony, & Hamilton, Madge. (25 Caversham Rd., London, England) Neurosis in fifty married couples assessed from general practice records, interviews by a psychiatric social worker and the use of the Cornell Medical Index. *J. ment. Sci.*, 1962, 108(Whole No. 454), 265-273.—Thorough examination by the general practitioner reveals psychiatric diagnosis in 52 of the 100 Ss, most of these being reactive anxiety or depression. High scores on the medical index corroborate these diagnoses as only 4 false positives were noted. Minor common neurotic illnesses seem definitely related to poor achievement in economic, social, and interpersonal spheres.—*W. L. Wilkins.*

3726. Shapiro, M. B., Neufeld, I. L., & Post, F. (Maudsley Hosp., London, England) Note: Ex-

perimental study of depressive illness. *Psychol. Rep.*, 1962, 10(2), 590.—A report of therapeutic results obtained by systematically applying 2 different therapy methods to a depressed, phobic patient, with measurements taken 4 times weekly.—B. J. House.

3727. Tellenbach, H. (Heidelberg, Germany) *Gestalten der Melancholie*. [Gestalts of depression.] *Jb. Psychol. Psychother. med. Anthropol.*, 1960, 7(1-2), 9-26.—The concept "Gestalt" is used here in a twofold meaning, existential gestalt and essential gestalt. The theoretical differences of both usages of "Gestalt" is discussed in terms of existential philosophy and psychiatry. Endogene and reactive types of depression which are recognized as being individual in type by clinicians are evaluated theoretically in the light of speculations of some authors. Particular attention is given to Kierkegaard's and Nietzsche's approaches. Religious and literary implications of depression, as they are encountered in the Western Hemisphere, are also presented.—V. J. Bieliauskas.

Physiological Correlates

3728. Bishop, Melvin Puckett. (Vanderbilt U.) *Psychotoxic effects of schizophrenic plasma in the rat*. *Dissert. Abstr.*, 1961, 22(4), 1247.—Abstract.

3729. Bogoch, Samuel; Belval, Peter C., Dussik, Karl T., & Conran, Peter C. (Harvard Medical School, Boston) *Psychological and biochemical syntheses occurring during recovery from psychosis*. *Amer. J. Psychiat.*, 1962, 119(2), 128-135.—A neurochemical and clinical double-blind method was applied to 33 cases added to a previously-studied 24 cases of psychotic states. Changes in the cerebrospinal fluid were found to be related to "psychological and behavioral changes respectively occurring during entry into and recovery from psychotic states."—N. H. Pronko.

3730. Brune, Guenter G., & Himwich, Harold E. (Galesburg State Research Hosp., Ill.) *Indole metabolites in schizophrenic patients: Urinary excretion*. *Arch. gen. Psychiat.*, 1962, 6(4), 324-328.—"Longitudinal studies of the urinary excretions of tryptamine and total indole-3-acetic acid as well as of behavior . . . of 20 male schizophrenic patients" showed a correlation between the excretions studied and "the degree of psychotic activity."—L. W. Brandt.

3731. Oken, Donald; Grinker, Roy R., Heath, Helen A., Herz, Marvin; Korchin, Sheldon J., Sabshin, Melvin, & Schwartz, Neena B. (Michael Reese Hosp., Chicago, Ill.) *Relation of physiological response to affect expression: Including studies of autonomic response specificity*. *Arch. gen. Psychiat.*, 1962, 6(5), 336-351.—2 groups each of 9 high and low affective lability, range, and threshold, normal college students showed no significant difference on 9 physiological variables and 3 affective and 3 defensive psychiatric response categories in a psychological stress, a physical stress, and a control situation. "The hypothesis that the affectively less expressive subjects would manifest greater physiological responses generally was not substantiated." Small differences between the groups appeared in GSR, diastolic blood pressure, finger blood flow, and finger-skin temperature. (22 ref.)—L. W. Brandt.

3732. Ray, Thomas Shelby. (U. Oklahoma) *Electrodermal indications of levels of psycholog-*

ical disturbance in chronic schizophrenia. *Dissert. Abstr.*, 1961, 22(4), 1260.—Abstract.

3733. Shagass, Charles, & Schwartz, Marvin. (State U. Iowa) *Cerebral cortical reactivity in psychotic depression*. *Arch. gen. Psychiat.*, 1962, 6(3), 235-242.—1 male and 15 female patients aged 23-68 were tested by photographic averager for cortical potentials evoked. "Reactivity cycles . . . showed progressively more early response recovery as the depression improved, and diminished recovery with relapse, indicating that abnormal cortical reactivity in psychotic depression is reversible."—L. W. Brandt.

3734. Shagass, Charles, & Schwartz, Marvin. (State U., Iowa) *Observations on somatosensory cortical reactivity in personality disorders*. *J. nerv. ment. Dis.*, 1962, 135(1), 44-51.—"The aim of this study was to bring a new kind of physiological data to bear on the question: Are personality disorders more like psychoneuroses or more like psychoses? Potentials evoked at the somatosensory cortex by stimulation of the ulnar nerve were recorded from scalp leads by means of an averager. Pairs of stimuli, separated by varying intervals, were used to determine the first 190 msec. of the somatosensory recovery cycle, which describes the temporal course of changes in responsiveness subsequent to a stimulus. Recovery cycles in 36 patients with personality disorders were compared with those in 25 nonpatients, 34 psychoneurotics and 21 schizophrenic patients. The aspect of the recovery cycle which differentiated best between subject groups was the peak amount of recovery achieved in the first 20 msec. after the stimulus. With respect to this index, the personality disorders and schizophrenics were clearly distinguishable from psychoneurotic and non-patient subjects, but undistinguishable from one another. No statistically significant differences between types of personality disorder were found. It was concluded that the results favor the view which places the personality disorders closer to the psychoses than to the psychoneuroses."—N. H. Pronko.

3735. Ueno, Yôzô; Aoki, Norita; Yabuki, Tensi, & Kuraishi, Fumio. (Nihon U.) *Electrolyte metabolism in blood and cerebrospinal fluid in psychoses*. *Folia psychiat. neurol. Jap.*, 1961, 15(4), 304-326.—Na⁺, K⁺, Ca⁺⁺, and Cl⁻ content of blood and CSF were measured in several hundred patients, mostly schizophrenics. The most reliable differences were noted in the K⁺ level in the CSF, which was high in schizophrenics, and decreased during periods of improvement. It is suggested that the added potassium comes directly from the brain into the CSF, and the role of potassium and other electrolytes in brain metabolism is discussed.—W. A. Wilson, Jr.

3736. Whatmore, George B., & Ellis, Richard M. (Seattle, Wash.) *Further neurophysiologic aspects of depressed states: An electromyographic study*. *Arch. gen. Psychiat.*, 1962, 6(3), 243-253.—"The findings indicate that patients exhibiting severe recurrent depressions of the retarded type are hyperpericentric during periods of recovery and in apparent excellent health prior to relapse." (28 ref.)—L. W. Brandt.

PSYCHONEUROSES

3737. Delay, J., Klotz, H. P., Pichot, P., Weil, F., & Perse, J. (Hôpital Ste.-Anne, Paris) *Tétanie et hystérie*. [Tetany and hysteria.] *Encephale*, 1961, 50(5), 437-449.—The connection between the

symptoms of chronic constitutional tetany and hysteria were examined in 4 clinical cases. Also the MMPI was administered to 3 groups: 20 women with symptoms of chronic tetany, 20 women diagnosed as hysterics, and 18 women with conversion symptoms together with diagnoses of hysterical character. Profiles were similar for all groups (elevation of neurotic and psychotic triads, depression of Mf scale), but deviations in the hysterical groups were greater. The hypothesis is presented that both hysterical and tetany reactions originate from a certain type of dysfunction in subcortical centers.—*W. W. Meissner.*

3738. **Dmitriev, A. F., & Pervov, L. G.** (Pavlov Inst. Physiology, USSR Acad. Sciences, Leningrad) *Issledovanie sootnosheniia signal'nykh sistem pri nevrozakh.* [Relationship between signaling systems in neuroses.] *Zh. vyssh. nervn. Deiatel.*, 1961, 11(6), 979-984.—Ss were 92 neurotics, 35 hysterics, and 57 neurasthenics (32 hyper- and 20 hyposthenics). They were asked to react verbally to presentation of objects and their names. Pervov's method of collision of verbal and direct stimuli was used. It was found that responses of neurasthenics tended to follow verbal stimuli whereas those of hysterics were more affected by direct stimuli of objects. As all patients improved, the number of responses of the 2nd signaling order increased.—*A. Cuk.*

3739. **Göppert, H.** (Freiburg, Germany) *Zur Psychopathologie der Zwangskrankheit.* [On the psychopathology of obsessive-compulsive illness.] *Jb. Psychol. Psychother. med. Anthropol.*, 1960, 7(1-2), 38-47.—It is suggested that a person with obsessive-compulsive behavior features experiences a "fundamental depersonalization" which is quite different from the phenomenon of depersonalization experienced in depression. The obsessive-compulsive diseases are connected with the experience of complete loss of personalization to other people. A person inflicted with such a disease refuses to accept the fact that he can be understood by another person and attempts to reduce his behavior to numbers and other quantitative formulae. In view of these ideas new approaches for psychotherapy are suggested.—*V. J. Bieliauskas.*

3740. **Iwamoto, Shin-ichi.** (Kobe Medical School, Japan) *Zur Psychopathologie des amnestischen Syndroms.* [The psychopathology of the amnesia syndrome.] *Folia psychiat. neurol. Jap.*, 1961, 15(3), 218-228.—The performance of 7 amnesic patients upon tests of memory and perception is summarized. It is concluded that the memory loss in amnesia is only one aspect of a general disturbance in the integration of psychological functions.—*W. A. Wilson, Jr.*

3741. **Jores, A.** (II Medizinische Universitäts-Clinic & Poliklinik Hamburg-Eppendorff, Germany) *Über die erfolgreiche Behandlung eines Falles von Herzphobie.* [On the successful treatment of a case of cardiophobia.] *Z. psycho-som. Med.*, 1961, 7(4), 249-254.—A 46-year-old male who missed safety, tranquility, and acceptance in his childhood developed a fear of heart disease. This fear was based on a hidden desire to receive love, security, and care—primarily from his wife. Lack of security, of self-reliant development of one's potentialities, and suppressed not-experienced aggressivity are the 3 main roots of anxiety. Cure in 40 sessions was brought about by good transference based on frank discussions

of the threats in the external world, of safety in emotional life and faith, and reference to the curative effect of satisfying activity.—*I. Neufeld.*

3742. **Pollock, George H.** (U. Illinois) *Transference neurosis.* *Arch. gen. Psychiat.*, 1962, 6(4), 294-306.—"A review of Georg Simmel's concepts is included and correlated with the modifications that occur in the course of the developing transference neurosis. Viewing the transference neurosis from the perspective of psychological field and object relationships will allow for further understanding of psychic development and the therapeutic process." (24 ref.)—*L. W. Brandt.*

3743. **Rosolato, G.** *L'hystérie: Structures psychanalytiques.* [Hysteria: Psychoanalytic structures.] *Evolut. psychiat.*, 1962, 27(2), 225-258.—A psychoanalytic resumé of the structural characteristics of hysteria includes the following areas: (a) the S's mirror-image and the imaginary danger of corporal disruption in relationships with the mother; (b) the dialectic opposition of being and having; (c) the oral and phallic stages; (d) the function of the ideal ego, as opposed to the ego ideal; and (e) an emphasis upon the role played by emotions. Hysteria is considered an illness of metaphor, whereas obsessional neurosis is one of metonymy. The article concludes by differentiating many allied phenomena, such as anxiety, phobic and traumatic neurosis, and various psychic disorders.—*L. A. Ostlund.*

3744. **Schiffer, I.** (Toronto) *The psychoanalytic study of the development of a conversion symptom.* *Int. J. Psycho-Anal.*, 1962, 43(2-3), 169-174.—Conversion symptoms represent a form of non-verbal communication, much as a dream communicates through symbolism. The disturbed individual unconsciously selects, in conversion hysteria, the body part which symbolizes the conflict he is undergoing.—*G. Elias.*

3745. **Stephens, Joseph H., & Kamp, Martin.** (Johns Hopkins U. School Medicine, Baltimore, Md.) *On some aspects of hysteria: A clinical study.* *J. nerv. ment. Dis.*, 1962, 134(4), 305-315.—Study of the records of 100 in-patients diagnosed as hysteria at the Henry Phipps Psychiatric Clinic between the periods 1913-1920 and 1945-1960 showed similar rates and symptoms, thus failing to support the belief that conversion reactions are disappearing.—*N. H. Pronko.*

3746. **Wiesenhütter, E.** (U. Würzburg) *Gegenwärtiger Stand der Neurosenforschung.* [The present status of research on neuroses.] *Jb. Psychol. Psychother. med. Anthropol.*, 1960, 7(3-4), 199-213.—An examination of the definition of the concept of neurosis shows that the name neurosis is an operational, hypothetical, cumulative concept. Therefore, the research concerning neurosis is concerned with different aims which could be summarized in the following 5 categories: (a) the observation and differentiation of expressions, symptoms, and structures of neuroses; (b) problems concerning origin and etiology; (c) the importance and meaning for individual concern and environment; (d) distinction from other illnesses and normal psychological phenomena; and (e) the treatment. The present status of research concerning each of the above-mentioned problems is summarized from historical and theoretical standpoints. Modern treatment methods including psychoanalysis, psychotherapy, and especially group therapy,

are described. Newest contributions for the study of neurosis in using the projective techniques, especially the TAT and CAT, are given special treatment.—*V. J. Bieliauskas.*

PSYCHOSOMATICS

3747. Ackner, B., Cooper, J. E., Gray, C. H., & Kelly, Margaret. (Maudsley Hosp., London, England) **Acute porphyria: A neuropsychiatric and biochemical study.** *J. psychosom. Res.*, 1962, 6(1), 1-24.—To investigate the role of neurotic personality and emotional factors in precipitating acute attacks of porphyria, psychiatric, psychological, and EEG investigations, together with daily measurements of the urinary excretion of porphobilinogen and d-aminolacvulinic acid have been carried out in 13 Ss with acute porphyria. No evidence was found for a psychogenic factor in the etiology of the disorder. (20 ref.)—*W. G. Shipman.*

3748. Alexander, Franz. (Mt. Sinai Hosp., Los Angeles, Calif.) **The development of psychosomatic medicine.** *Psychosom. Med.*, 1962, 24(1), 13-24.—After a historical review of the swings between a physical and a mental point of view about disease causation, Alexander summarizes his past and present psychosomatic studies. (22 ref.)—*W. G. Shipman.*

3749. Bagge, Lars. (University Hosp., Lund, Sweden) **Acute appendicitis patients as a control group in psychosomatic investigations.** *J. psychosom. Res.*, 1962, 6(1), 25-36.—In order to test the representativeness of appendicitis patients as normal control persons in psychosomatic research, 65 females with acute appendicitis were studied. 43 were compared with randomly selected healthy women matched for age. Compared with the controls the appendicitis group had more migraine sufferers in their families, fewer upper respiratory tract infections, greater body fat, and fewer phobic symptoms in their history. These findings are discounted since many comparisons were made.—*W. G. Shipman.*

3750. Bruch, Hilde. (Columbia U.) **Perceptual and conceptual disturbances in anorexia nervosa.** *Psychosom. Med.*, 1962, 24(2), 187-194.—Clinical symptoms and psychodynamic data on 12 patients with the classic anorexia syndrome are presented. 3 characteristics were noted: disturbances in body image of delusional proportions; disturbance in the accuracy of the perception or recognition of bodily states e.g., nutritional needs; and an all-pervading sense of ineffectiveness.—*W. G. Shipman.*

3751. Castelnovo-Tedesco, P. (U. California School Medicine, Los Angeles) **Ulcerative colitis in an adolescent boy subjected to a homosexual assault.** *Psychosom. Med.*, 1962, 24(2), 148-156.—"The case is presented of a 14-year-old boy who was afflicted with ulcerative colitis following a homosexual attack and series of events in which he was inflexibly disciplined and sharply coerced. The patient's predicament is discussed primarily in terms of the dynamics of his obsessive-compulsive character structure and the problem of rebellion versus compliance which appears to have been of fundamental importance.—*W. G. Shipman.*

3752. Daniels, G. E., O'Connor, J. F., Karush, A., Moses, L., Flood, C. A., & Lepore, M. (Columbia U.) **Three decades in the observation and treatment of ulcerative colitis.** *Psychosom. Med.*,

1962, 24(1), 85-93.—57 cases of ulcerative colitis who had had at least 7 sessions of psychotherapy have been systematically followed. Psychiatric diagnosis was very predictive. Most operations and deaths occurred in conjunction with schizophrenia. Psychotherapy was judged to improve the life adjustment of 46 of the cases. (31 ref.)—*W. G. Shipman.*

3753. Dudley, John G., & Lennon, E. J. (Boise, Idaho) **Reciprocal innervation in the treatment of respiratory dysfunction.** *Cerebral Palsy Rev.*, 1962, 23(4), 3-4.—A compensatory reflex stimulation technique, involving the use of brush and ice as stimuli, is described in contrast to blowing and other conscious training exercises. A brief theoretical explanation is presented.—*T. E. Newland.*

3754. Dykman, R. A., Corson, S. A., Reese, W. G., & Seager, L. D. (U. Arkansas Medical Cent., Little Rock, Ark.) **Inhibition of urine flow as a component of the conditional defense reaction.** *Psychosom. Med.*, 1962, 24(2), 177-186.—In 2 mongrel dogs with polyethylene tubes connected to miniature bladders it was found that the conditioning environment, in which noxious stimulation was given, acquired a marked inhibitory effect on urine flow even under conditions of massive water loading. This could be disinhibited by the experimenter petting the dog. Heart rate and motor flexion responses to a painful stimulus conditioned more differentially, more specifically, and more persistently than did rate of urine production. (34 ref.)—*W. G. Shipman.*

3755. Eagleton, G., & Sines, J. O. (Washington U., St. Louis) **Free gastric acidity and intestinal mobility in normal and stomach lesion susceptible rats.** *J. psychosom. Res.*, 1962, 6(1), 37-40.—The amount of free HCl in the stomachs of a group of 13 normal rats was compared to that found in the stomachs of a group of 18 stomach lesion susceptible animals, after food deprivation, and after 1 hour immobilization. No differences were found between the groups. But the stomach lesion susceptible animals showed significantly greater intestinal motility than did their controls.—*W. G. Shipman.*

3756. Engel, George, L. (U. Rochester Medical Cent., N. Y.) **Guilt, pain, and success.** *Psychosom. Med.*, 1962, 24(1), 37-48.—"A case is presented in which is considered the role of pain in making success possible in a guilt-ridden man. A glomus tumor of the toe and a peptic ulcer both acted as a source of severe pain for more than 25 years during which the sufferer achieved great success in the business world. Each 'successful' medical intervention was followed by a worsening of his general condition."—*W. G. Shipman.*

3757. Feingold, B. F., Gorman, F. J., Singer, Margaret T., & Schlesinger, K. (Kaiser Found. Hosp., San Francisco, Calif.) **Psychological studies of allergic women.** *Psychosom. Med.*, 1962, 24(2), 193-202.—The MMPI was administered to 40 married, female allergy patients. Those with mild skin reactions had significantly more disturbed psychiatric conditions than those with marked skin reactions. (16 ref.)—*W. G. Shipman.*

3758. Graham, D. T., Kabler, J. D., & Graham, Frances, K. (U. Wisconsin School Medicine, Madison) **Physiological response to the suggestion of attitudes specific for hives and hypertension.** *Psychosom. Med.*, 1962, 24(2), 159-169.—20 healthy male

students were given 2 attitude suggestions on each of 2 days, with order reversed the 2nd day. It was predicted that skin temperatures would rise with the hives suggestion (you feel unjustly treated and can think of nothing you want to do about it) and that diastolic blood pressure would rise more with the hypertension attitude (you have to be on guard against bodily assault). The predictions were confirmed. (16 ref.)—*W. G. Shipman*.

3759. Ham, George, C. (U. North Carolina School Medicine, Chapel Hill) **Psychosomatic perspectives: The cardiovascular system.** *Psychosom. Med.*, 1962, 24(1), 31-36.—The literature is reviewed and areas for further research are indicated. The need to see the disorder in the context of past history and present efforts at adjustment is emphasized. (62 ref.)—*W. G. Shipman*.

3760. Jortner, Sidney Selig. (New York U.) **An investigation of certain intellectual and personality characteristics of multiple sclerotics: A comparison of the psychological functioning of multiple sclerotics with that of brain-damaged and peptic ulcer patients as a means of testing the psychosomatic hypothesis of multiple sclerosis.** *Dissert. Abstr.*, 1962, 22(12), 4406-4407.—*Abstract*.

3761. Kissen, D. M. (U. Glasgow, Scotland) **Relationship between primary lung cancer and peptic ulcer in males.** *Psychosom. Med.*, 1962, 24(2), 133-147.—458 new male admissions to 2 wards were questioned about their illness history without knowledge of the current diagnosis. Subsequently 212 were diagnosed lung cancer, 199 had noncancerous conditions, and 47 had psychosomatic conditions. "Lung-cancer patients show a broad similarity to the psychosomatic controls in the incidence of past psychosomatic disorders; they tend, however to have had rather more peptic ulcers and rather less other psychosomatic conditions." (32 ref.)—*W. G. Shipman*.

3762. LeShan, Lawrence. (Inst. Applied Biology, NYC) **Present views in psychosomatic cancer research.** *J. Amer. Soc. Psychosom. Dent. Med.*, 1962, 9(3), 76.—A brief article pointing out the conflict in results and studies in this area.—*J. H. Manhold, Jr.*

3763. Peoples, Landon Crocker. (U. Tennessee) **A study of important stimuli in the lives of men with cancer.** *Dissert. Abstr.*, 1961, 22(6), 2071.—*Abstract*.

3764. Plesch, Egon. **Reddening and paranoid experience: Some psychological and biological implications.** *Acta psychother. psychosom.*, Basel, 1962, 10(1), 45-52.—Among 20 women with rosacea, morbid reddening, or both, all revealed paranoid trends with well-defined systems protecting against them. The reddening is a vestigial biological factor in the patient's paranoid defences, emerging in states of regression.—*G. Rubin-Rabson*.

3765. Rothenberg, Albert. (USA Rodriguez Hosp., Fort Brooke, Puerto Rico) **Psychological problems in terminal cancer management.** *Cancer*, 1961, 14, 1063-1073.—Through the tracing of the intrapsychic and interpersonal factors operating between patient and hospital house staff, 4 illustrative cases are used to show how psychological problems of terminal cancer patients arise. 5 specific sociopsychological issues are outlined: the house staff tend to

(a) avoid issues that manifest the fact of loss of control, (b) support denial, (c) encourage isolation, (d) discourage the expression of grief, and (e) overestimate the patients' incapacity because of their own sense of failure. Although the attending physician might justifiably feel some of these trends inpatient-staff interaction should not be interfered with in a specific case, he must be aware of them as potential trouble spots.—*S. E. Waxenberg*.

3766. Rubin, J., Nagler, R., Spiro, H. M., & Pilot, M. L. (Yale U. School Medicine, New Haven, Conn.) **Measuring the effect of emotions on esophageal motility.** *Psychosom. Med.*, 1962, 24(2), 170-176.—Esophageal motility was studied by means of pressure transducers in 5 adults as each had 3 unstructured psychiatric interviews. "A significant relationship between affectively charged material and nonpropulsive activity in the esophagus was consistently found in 2 of 5 Ss and, during some interviews, in other Ss."—*W. G. Shipman*.

3767. Schachter, M. **Étude des encéphalopathies infantiles consécutives à des brûlures.** [Encephalopathies in children as a sequel to burns.] *Acta paedopsychiat.*, Basel, 1962, 29(6), 161-172.—Pathological additional factors (birth trauma prematurity, toxico-sis) often prepare the field for later severe burns in children to produce neurological and psychological disturbances of varying degrees.—*G. Rubin-Rabson*.

3768. Schneider, S. F. (U. Michigan, Ann Arbor) **A psychological basis for indifference to pain.** *Psychosom. Med.*, 1962, 24(2), 119-132.—Neurological, psychiatric, and psychological findings concerning 3 patients showing indifference to pain were reviewed. Their common traits were denial of weakness, helplessness, and passivity, and their insistence of personal invincibility. The best explanation: "regressive reactivation of denial by the ego under the impact of phallic or oedipal conflicts."—*W. G. Shipman*.

3769. Shannon, Ira L., Szymid, Lucian, & Prigmore, John R. **Stress in dental patients: Serum and urine 17-hydroxycorticosteroid responses in impaction patients.** *USAF SAM Rep.*, 1962, No. 62-59. 5 p.—A total of 91 impacted lower third molars was removed; and patient adrenocortical response, both before and after surgery, was measured. Both serum free and urine total 17-hydroxycorticosteroids were determined in these patients and in 33 control Ss. The preoperative serum mean of 20.68 gamma percent for the surgery patients was significantly higher than that of 14.17 gamma percent found for the controls. It was also significantly higher than the 13.74 gamma percent found for our 633 laboratory control Ss and the 17.53 gamma percent for 286 Se scheduled for simple exodontia. 1 hour after operation the effect of anticipating and experiencing impaction surgery was no longer evident. Urinary excretion of corticosteroids was not significantly different for the impaction and control groups.—*USAF SAM*.

3770. Smith, R. E. (Portland State Coll.) **A Minnesota Multiphasic Personality Inventory profile of allergy.** *Psychosom. Med.*, 1962, 24(2), 203-209.—The MMPI was administered to 36 allergic patients and to 36 nonallergic normals matched individually for age, sex, education, socioeconomic, and marital status. Female allergic patients had a higher Ma score. Male allergic patients were significantly higher

than controls on F, Pt, Sc, and Ma. (21 ref.)—W. G. Shipman.

3771. Sugar, Max, & Watkins, Charles. (Louisiana State U. School Medicine) Some observations about patients with a breast mass. *Cancer*, 1961, 14, 979-988.—In order to learn if and why they delayed seeking treatment, 50 women with a breast mass were interviewed prior to their having a final diagnosis made at operation. 11 were found to have breast cancer, 23 to have benign lesion at operation, and 16 clinically did not have cancer. Knowledge of cancer symptoms did not keep patients from seeking help. Patients who were fearful about the possible cause of the mass were not kept away by fear. The patients seen early for treatment tended to exhibit anxiety. The majority of patients who delayed showed depression and little fear, and they did not care what happened to them. Most of the patients found to have cancer had delayed seeking help and were depressed. Most of the patients who were found to have a benign lesion had sought treatment promptly and were anxious.—S. E. Waxenberg.

3772. Turnbull, J. W. (Jewish National Home Asthmatic Children, Denver, Colo.) Asthma conceived as a learned response. *J. psychosom. Res.*, 1962, 6(1), 59-70.—Citing the relevant learning theory, the author formulates an explanation of the asthma-like response and gives a number of testable implications of this formulation. (34 ref.)—W. G. Shipman.

3773. Williams, Robert Lee. (Washington U.) The relationship of body-image to some physiological reactivity patterns in peptic ulcer and rheumatoid arthritic patients. *Dissert. Abstr.*, 1962, 22 (12), 4415-4416.—Abstract.

3774. Wolff, Harold, G. A concept of disease in man. *Psychosom. Med.*, 1962, 24(1), 25-30.—General morbidity, other than in childhood, has not been reduced. Periods of threatening significance to a man have sweeping effects on his resistance of illness. This is documented for the mucous membrane, vascular system, and skin. Illness rates are higher in immigrants, prisoners of war (even after their liberation), and in the aged when responsibilities and morale drop. Behavioral and attitudinal reactions serving to protect in a crisis may become inappropriate in amount and kind, thus leading to organ breakdown, diseases, or premature aging.—W. G. Shipman.

3775. Ziegler, Frederick J., & Imboden, John B. (La Jolla, Calif.) Contemporary conversion reactions: II. A conceptual model. *Arch. gen. Psychiat.*, 1962, 6(4), 279-287.—The theoretical concept of conversion is misapplied to phenomena. A 4-year observation of 134 conversion patients showed 40 to have depressions; 19, incipient schizophrenia; others, ego identity problems or "features of 'neurotic anxiety' in the clinical sense of that term." Clinical evidence and scientific considerations indicate that conversions defend not only against anxiety but against dysphoric affects in general and that no specific energy is transformed. Conversions are suggested to be symbolic communications of distress by means of displaying the signs of a somatic illness. The symptoms depend on the patient's perception and knowledge of physical illness. (59 ref.)—L. W. Brandt.

EPIDEMIOLOGY

3776. Finney, Joseph C. (550 Makapuu Ave., Honolulu, Hawaii) Prolegomena to epidemiology in mental health. *J. nerv. ment. Dis.*, 1962, 135(2), 99-104.—"Mental health epidemiology presupposes that a case of mental sickness can be defined by objective criteria. A definition and criteria are proposed, based on the measurement of servo-mechanisms and their effectiveness."—N. H. Pronko.

3777. Hollingshead, August B. (Yale U.) Lower socioeconomic status and mental illness. *Sociol. soc. Res.*, 1962, 46(4), 387-396.—The materials presented are selected from families in San Juan, Puerto Rico. In 50% of the families, one spouse is suffering from schizophrenia; in the other 50%, both spouses are mentally healthy. Comparable data are available on each type of family. More mental illness is reported in the families of orientation where one spouse is schizophrenic than in the families where both spouses are free of psychotic illness.—*Journal abstract*.

3778. Horner, Robert Franklin. (U. Tennessee) A search for important stimulus variables in the early family relationships of schizophrenic patients. *Dissert. Abstr.*, 1961, 22(6), 2070.—Abstract.

3779. Innes, George, & Sharp, Geoffrey A. (U. Aberdeen, Scotland) A study of psychiatric patients in north-east Scotland. *J. ment. Sci.*, 1962, 108(Whole No. 455), 447-456.—A 12-month population, of 863 males and 1240 females, was analyzed. Urban referrals were higher than rural, and divorced persons had high referral rates. Professional and unskilled laboring classes were disproportionately high.—W. L. Wilkins.

3780. Jensen, Sven E. (York County Mental Health Clinic, Newmarket, Ontario, Canada) Five psychotic siblings. *Amer. J. Psychiat.*, 1962, 119(2), 159-163.—"A family is presented in which 5 of 7 siblings and 10 of 17 members of the last 2 generations have had psychotic episodes. At least 5 members have experienced their mental illness in connection with childbirth, and 2 in connection with back injury. It is suggested that our interpretation does not rule out a hereditary or somatic concept."—N. H. Pronko.

3781. Juel-Nielsen, N., Bille, M., Flygenring, J., & Helgason, T. (Aarhus State Hosp., Risskov, Denmark) Frequency of depressive states within geographically delimited population groups: III. Incidence (the Aarhus county investigation). *Acta psychiat. Scand., Copenhagen*, 1961, 37(Suppl. No. 162), 69-80.—From a total population of about 220,000, all cases were selected who within 1 year had required contact with any one of the institutions—psychiatric as well as nonpsychiatric—which admit patients from this population group. Between 0.2% and 0.5% of the adult population (with a high preponderance of females) were involved. Only 1/4 of these patients were treated in a psychiatric department.—R. Kaelbling.

3782. Malzberg, B. (Research Found. Mental Hygiene, Albany, N. Y.) Migration and mental disease among the white population of New York State: 1949-1951. *Hum. Biol.*, 1962, 34(2), 89-98.—For the three years ending September 30, 1961 the average annual standardized rate of 1st admissions

to all hospitals for mental disease in New York State was 171.9 per 100,000 population for white internal migrants, and 135.4 for white nonmigrants. The difference, which is statistically significant, confirms data previously reported for New York State.—P. Swartz.

3783. Prabha, N., & Sastry, M. N. S. Prevalence of maternal and paternal deprivation in schizophrenics and neurotics. *Trans. All-India Inst. Ment. Hlth.*, 1960, 1, 8-16.—Analysis of data from 216 cases shows that: loss of the father was more frequent than that of the mother; loss of the father in adolescence seems to affect males more, while the latency period of prepubescence (5-14 years) seem to be crucial in the case of females; and loss of the mother between the ages of 6 and 14 appears to be crucial for the schizophrenics, while the same loss during the formative period (before 6 years of age) seems crucial for neurotics.—U. Pareek.

3784. Sørensen, Andreas, & Strömgen, Erik. (Aarhus State Hosp., Risskov, Denmark) Frequency of depressive states within geographically delimited population groups: II. Prevalence (the Samsø investigation). *Acta psychiat. Scand., Copenhagen*, 1961, 37(Suppl. No. 162), 62-68.—On census day there were 6447 inhabitants on this Danish island, 4974 of whom were over 15. (Only on 98 was the information insufficient to conclude whether they were depressed or not.) 3.9% of the population above 20 were found to be suffering from some form of depression. The prevalence was considerably higher in females. Depressive neuroses were diagnosed in 77%. The cases were brought to the attention of the investigators by the local physicians, who between themselves knew almost everyone on the island very well.—R. Kaelbling.

EDUCATIONAL PSYCHOLOGY

3785. Burroughs, G. E. R. (U. Birmingham) Educational research today: II. Co-operative research in Institutes of Education. *Brit. J. educ. Psychol.*, 1962, 32(2), 182-187.—The article describes responsibilities of institutes for research and then presents a brief historical account of endeavors at one institute.—B. T. Jensen.

3786. Conrad, Herbert S. (US Office Education, Washington, D. C.) Research in education: Directions and misdirections. *Teachers Coll. Rec.*, 1962, 64(1), 13-19.—Educational research should concern itself not only with what to do but how to do it. It should use more often the large-scale, long-term, comprehensive "systems" approach. Key problems are gaining recognition for the contributions of psychological research and getting enough money. "Rudolph Flesch, in a book devoid of scientific merit, was able single handedly to blackball years of research and progress in the teaching of reading." Why was this possible?—H. K. Moore.

3787. DiVesta, Francis J. (Syracuse U.) Meaningful learning: Motivational, personality, interpersonal, and social variables. *Rev. educ. Res.*, 1961, 31(5), 511-521.—"This chapter deals with studies of the motivational, personality, and social-cultural variables affecting meaningful learning. The section on extrinsic versus intrinsic motivation surveys the motivating effects of instructions on ego involvement, level of aspiration, and achievement

motive. The personality variables given greatest attention are anxiety, self-attitudes, authoritarianism, and values and interests. The section on research on social-cultural variables includes teacher-pupil and peer relationships as well as group versus individual learning settings and the learning-variable concomitants of socioeconomic status." (73 ref.)—F. Goldsmith.

3788. Frank, Helmar. *Kybernetische Grundlagen der Pädagogik*. [Cybernetic foundations of education.] Baden-Baden, Germany: Agis, 1962, 175 p. DM 12.80.—Philosophical, mathematical, and physiological foundations of what the author calls information-psychology are presented. The conventional S-R process is described in terms of binary coding and neuron networks with respect to gestalt-psychology phenomena. Numerous implications of information-psychology for education are listed.—K. J. Hartman.

3789. Jensen, Arthur R. (U. California, Berkeley) The improvement of educational research. *Teachers Coll. Rec.*, 1962, 64(1), 20-27.—Why is there so little significant research in education despite the number of educational magazines and the number of doctorates granted? Insufficient money is only symptomatic. It is largely the gulf that exists between education and the systematic study of human behavior, and the sort of people who seek doctorates in education. A remedy is to establish in universities, departments of educational research apart from the schools of education.—H. K. Moore.

3790. Jenson, Theodore J., & Staub, W. Frederick. (Ohio State U.) School-community relations. *Rev. educ. Res.*, 1961, 31(4), 406-416.—Intensified interest on the part of lay and professional people, concern for the standing of American education in the world community, mobility and social change, and outright competition of education with other public services sharpened the focus on needs for research for better understanding of school-community relations. Much of the research was not highly significant and consisted of hindsight after bond elections had failed, limited opinion research on effectiveness of items in public relations programs, and speculative studies. More rigor, better design, and new theory are needed. (62 ref.)—F. Goldsmith.

3791. Joncich, Geraldine. (U. California, Berkeley) Whither thou, educational scientist. *Teachers Coll. Rec.*, 1962, 64(1), 1-12.—"If the pseudo-science of much of recent educational research faces displacement, the time is surely ripe for re-study of that earlier time of faith and pride when a more rigorous concept of the science of education prevailed.—H. K. Moore.

3792. Kreitlow, Burton W. (U. Wisconsin) Organizational patterns: Local school districts. *Rev. educ. Res.*, 1961, 31(4), 380-392.—The general theory which supported reorganization as a basis of improving opportunities was upheld in practice. There was an increasing amount of evidence that pupil achievement was aided by reorganization. This was adequately proved at the elementary grade levels but not so completely at high-school levels. Reorganized school districts provided equal opportunities at lower cost. Reorganization for the purpose of increasing opportunities and achievement often cost the taxpayer more, either through local property

taxes or through sources outside the local community. (53 ref.)—*F. Goldsmith.*

3793. Peel, E. A. (U. Birmingham) **Educational research today: I. Priorities in educational research.** *Brit. J. educ. Psychol.*, 1962, 32(2), 178-181.—Research workers should turn more to processes and should avoid aimless surveys. This would put priorities on studies of school learning, concept formation, thinking and reasoning, motivation, and growth of values and morale.—*B. T. Jensen.*

3794. Roe, William H. (Michigan State U.) **Organizational patterns: State and federal.** *Rev. educ. Res.*, 1961, 31(4), 368-379.—During the last 3 years several trends were noted in the organizational patterns of state, national, and intermediate administration of education. The federal government increased its contact activities, yet lacked clear-cut policies. State units emphasized consultation and service and de-emphasized inspection. The efficiency of local school districts was questioned, and proposals were made for organization of larger intermediate units. Studies were essentially descriptions and surveys, but no trend for more profound research of an experimental and controlled variety was observed. Little use was made of dissertation research. (85 ref.)—*F. Goldsmith.*

3795. Wilson, E. M. **Cumulative index of Volumes I-XXX: 1930-1960.** *Brit. J. educ. Psychol.*, 22 p.—Subject and author indices.—*B. T. Jensen.*

SCHOOL LEARNING

3796. Belyaev, V. B. (Moscow, USSR) **K kharakteristike zarubezhnoi (zapadnoevropeiskoi i amerikanskoi) psikhologii obucheniya inostrannyim yazykom.** [Towards a characterization of the foreign (Western-European and American) psychology of training in foreign languages.] *Vop. Psikhol.*, 1962, No. 1, 157-167.—A review of work on the title subject done during the 1st half of the century. The author summarizes current foreign trends mentioning specifically trends toward: (a) practical use of language and not a theoretical knowledge; (b) emphasis of thinking directly in the foreign language rather than translating; (c) training in various methods for ascertaining the meaning of a foreign language selection; (d) increased size of units which are taught, e.g., phrases rather than words; (e) training in the spoken language preceding training in the written language; and (f) taking an eclectic approach to language training methods. (92-item bibliogr.)—*H. Pick.*

3797. Bowers, Norman D. (U. North Carolina) **Meaningful learning and retention: Task and method variables.** *Rev. educ. Res.*, 1961, 31(5), 522-534.—"Presentation of material to maximize pupil learning and retention is a major problem confronting the classroom teacher. Obviously, great variability is possible both in the instructional materials and in the methods of presentation. Materials may vary in such factors as difficulty, sequence, potential meaningfulness, redundancy, and internal organization. Presentation may vary according to such characteristics as type of classroom organization, teaching style, and procedure. Variability stemming from materials is, in this chapter, termed task variable; variability stemming from the procedures used by the teacher is termed method variable. In the

classroom learning situation, task variables require reaction by a pupil to a demand or suggestion of the teacher, other pupils, or the pupil himself. Method variables are basically those teacher behaviors that condition the learning situation in the classroom." (76 ref.)—*F. Goldsmith.*

3798. Dubovis-Aranovskaya, D. M. (Khar'kovskii U.) **O nekotorykh usloviyakh ponimaniya struktury teksta uchashchimisya.** [On some conditions for pupils' comprehension of the structure of a text.] *Vop. Psikhol.*, 1962, No. 1, 53-60.—Pupils of the 5th through 7th grades were asked to make general plans of a narrative selection. 3 levels of performance were noted: the highest level indicating comprehension of the general structure of text and the author's ideas, a 2nd level not reflecting the general structure but rather reflecting images evoked by particular aspects of the material, a 3rd level reflecting mainly the pupils' own reaction to the text rather than the authors' ideas. The inadequacy of the latter 2 levels seem to be due to such factors as improper orientation to the structure and inability to abstract. An intensive training experiment was initiated to evaluate the feasibility of training pupils to grasp the plan of a text. 3 variations of training were used: one where the children were taught to outline only narrative texts, one where they were taught successively to outline narrative and descriptive texts, and one where they were taught both simultaneously. The latter procedure was most effective in comparison with a control group which did not improve.—*H. Pick.*

3799. Gagné, Robert M., Mayor, John R., Garstens, Helen L., & Paradise, Noel E. (Princeton U.) **Factors in acquiring knowledge of a mathematical task.** *Psychol. Monogr.*, 1962, 76(7, Whole No. 526), 20 p.—This experimental study reports on effects of variation in certain theory-relevant features of a learning program on the progress of learning and its impact on those to whom it was administered. 4 different forms of a chapter in a text entitled *Mathematics for the Junior High School* were administered over a 4 day period to 136 students in 4 7th grade classes. It was found that prior mastery of subordinate learning sets directly influenced the acquisition of learning sets at ascending stages of hierarchical levels. At each stage a part of the achievement of the higher learning gave evidence of positive transfer. There was no evidence of differences in the performance on postlearning tasks that was related to low and high ability as based upon the criterion of previous mathematics grades. The findings give emphasis to the relatively small effects of the experimental variables in contrast to the effects produced by the addition or omission of learning sets.—*M. A. Seidenfeld.*

3800. Krumboltz, John D. (Stanford U.) **Meaningful learning and retention: Practice and reinforcement variables.** *Rev. educ. Res.*, 1961, 31(5), 535-546.—Interest in the application of reinforcement psychology to meaningful school learning situations has developed rapidly in the last 3 years. Much of the interest was generated by the development of the teaching machine and programmed learning approach, which provided a technique for investigating systematically some of the variables involved. Selected research findings are categorized under 4 problems in learning: (a) evoking the desired response,

(b) reinforcing the desired response, (c) maintaining and improving the desired response, and (d) eliminating the undesired response. (45 ref.)—*F. Goldsmith*.

3801. Loginova, E. A. (Leningrad, USSR) *Ovliyanii interesa na zapominanie novykh slov pri izuchenii inostrannogo yazyka*. [On the influence of interest on remembering new words during the study of a foreign language.] *Vop. Psikh.*, 1962, No. 1, 61-64.—37 1st year students in an institute of physical culture were taught 10 general German words and 10 words related to competitive sports. A variety of vocabulary training methods all yielded results indicating an advantage of from 3.4 to 12.0% in learning the sport relevant words.—*H. Pick*.

3802. Morrison, Flora M., Warburton, Marjory; Ormrod, Georgina; Gelilee, Dorothy; Cassell, Cynthia; Williams, Monica; Medhurst, Dorothy; Daly, Genevieve, & Lea, Marjorie. (St. George's Elementary School, Toronto, Canada) *A healthy climate for learning*. *Bull. Inst. Child Stud., Toronto*, 1962, 24(2, Whole No. 93), 1-20.—A collection of 9 descriptive articles by members of the staff of St. George's Elementary School covering various aspects of kindergarten through 6th-grade teaching. They demonstrate that "As much as possible, the individual child's needs, rate of development and intellectual potential are taken into account. Our aim is to make learning interesting, satisfying and efficient by providing a healthy climate for learning."—*D. G. Appley*.

3803. Muehl, Siegmund. (Iowa Child Welfare Research Station) *The effects of letter-name knowledge on learning to read a word list in kindergarten children*. *J. educ. Psychol.*, 1962, 53(4), 181-186.—The effects of learning letter names on the subsequent acquisition of word-name associations was investigated utilizing 87 kindergarten Ss divided into 2 groups on the basis of their pretraining experience. A "relevant group" learned names for 3 letters that subsequently appeared as the critical stimuli in 3 nonsense words that were paired with pictures of familiar objects for paired-associate presentation. An "irrelevant group" learned names for letters that did not appear in the words on the transfer task. Knowledge of relevant letter names produced interference in the word-naming task, a finding which was interpreted in relation to evidence from classroom reading research.—*Journal abstract*.

3804. Robertson, James Patrick S. (Netherne Hosp., Coulsdon, England) *On learning names of parts of an anatomical diagram*. *Psychol. Rep.*, 1962, 10(2), 576.—A description of learning performance of 327 nurses and relationship to other skills.—*B. J. House*.

3805. Schoer, Lowell. (State U. Iowa) *Effect of list length and interpolated learning on the learning and recall of fast and slow learners*. *J. educ. Psychol.*, 1962, 53(4), 193-196.—The present study was undertaken to determine whether differential susceptibility to inhibition may influence learning of fast vs. slow learners. Each S learned either a 7- or a 14-item list of paired adjectives and recalled and relearned it 24 hours later. 50% of the Ss learned a 9-item interpolated list just prior to the recall of the 7- or 14-item list learned originally. A significant interaction between ability level and list length was found when the criterion measures em-

ployed were trials-to-learn and probability of occurrence of a correct response after 2 and 3 reinforcements. Interpolated learning did not affect the recall of fast and slow learners differentially.—*Journal abstract*.

3806. Skemp, R. R. (U. Manchester) *The need for a schematic learning theory*. *Brit. J. educ. Psychol.*, 1962, 32(2), 133-142.—After arguing that a schematic theory would be applicable to education, author describes an experiment to demonstrate the importance of schema in a relatively simple learning task. 2 groups of pupils learned material by either rote or schematic procedures. Retention was better for the schematic learning group.—*B. T. Jensen*.

3807. Sokolova, E. N. (Inst. Psychology, APN, RSFSR, Moscow) *Osobennosti Zritel'nykh predstavlenii u detei razlichnykh vozrastov v protsesse lepkii*. [Properties of visual ideas in children of various school ages in the process of modeling.] *Vop. Psikh.*, 1962, No. 1, 81-88.—Children in the 1st, 3rd, and 5th grades were asked to make models of various objects according to their imagination. The lack of detail in the models indicated that most of the children seemed to have very vague and general ideas of the objects. Some of the pupils could consciously recall some of the omitted details when questioned by E. These details sometimes occurred involuntarily to the 1st grade pupils. Additional experiments were carried out in which the pupils made models, after listening to a description of the object by E, after viewing a contour drawing, after viewing a perspective drawing, and after viewing the real object. Results indicated that the idea of the objects improved with the improved conditions for obtaining information. The 5th grade children improved most. The 1st grade children had most difficulty accomplishing anything after the description by E.—*H. Pick*.

3808. Surányi, Gábor. *Nagyságbecslés emlékezet után*. [Evaluation of remembered height.] *Psichol. Tanulmányok*, 1958, 1, 95-103.—The results of Galkina's studies concerning elementary school children's perceptions were confirmed in this study regarding the accuracy of remembered perception of certain animal heights. Height was better remembered if the animal had been shown previously to the children, but even this did not lead to accurate evaluation. In another experiment the children had to draw a pitcher and glass from memory. Only 28.57% could draw it in the right proportion. Better results were obtained when instructions were given pointing to the phenomenon of "bigger than." Implications for improving teaching methods are discussed. (Russian & English summaries.)—*E. Friedman*.

3809. Wittrock, M. C. (U. California, Los Angeles) *Set applied to student teaching*. *J. educ. Psychol.*, 1962, 53(4), 175-180.—To determine if a set to teach for pupil gain influences learning, student teachers in the experimental group were told that their final course grades in educational psychology and in student teaching depended upon the amount of pupil gain. Differences between pretests and posttests for 787 secondary school students of English, American government and history, and social studies indicated that the experimental group of teachers produced more ($p < .001$, 2-tailed) student gain than did a control group of student teachers. An analysis of covariance of the posttest scores adjusted for the

pretest scores supported the above result ($p < .05$). It was concluded that the concept of set finds application in teaching.—*Journal abstract*.

INSTRUCTIONAL AIDS

3810. Asher, J. J. (San Jose State Coll.) **Sensory interrelationships in the automated teaching of foreign languages.** *Percept. mot. Skills*, 14 (1), 38.—Ss learned 92 Spanish vocabulary items in one sensory modality and relearned in the other. Transfer from the words to syntactic use was tested. Ss learning visually and relearning aurally performed better in all respects than those learning aurally and relearning visually.—*W. H. Guertin*.

3811. Calvin, Allen D., & Hanley, Charles. (Behavioral Research Lab., Palo Alto) **Exposure to programmed learning material and reading comprehension.** *Psychol. Rep.*, 1962, 10(2), 538.—High school students ($N = 222$) who had taken programmed instruction in geometry had higher speed of reading comprehension scores than controls ($N = 84$) given the standard classroom course. Groups given programmed instruction in Algebra did not differ from controls on reading tests.—*B. J. House*.

3812. Hallworth, H. J. (U. Birmingham) **Electronic computer programmes for psychologists.** *Bull. Brit. Psychol. Soc.*, 1962, 48, 16-21.—The article gives details of the programs available to British psychologists.—*C. C. Kiernan*.

3813. Markle, Susan Meyer. (U. California, Los Angeles) **Teaching machines versus programmers.** *Audiouis. commun. Rev.*, 1962, 10(4), 286-292.—A discussion of the restrictions that machines impose on self-instructional programming and how these restrictions can be overcome. 35-frame program-excerpt.—*R. E. Schutz*.

3814. Mialaret, G., & Malandain, C. **Etude de la reconstitution d'un récit chez l'enfant à partir d'un film fixe.** [Study of the reconstruction of a story by the child from a film strip.] *Enfance*, 1962, No. 2, 169-190.—To study the factors involved in the interpretation of pictures, 122 boys and 90 girls, age 7-12, were shown 3 film strips each depicting a story and asked to tell the story from memory immediately after the 2nd of 2 presentations. Results were analyzed according to Binet's categories of enumeration, description, and interpretation. Interpretation responses were more frequent at all ages, while enumeration and description declined in frequency with age. The global responses could be classed as (a) correct synthesis, (b) incomplete synthesis, (c) false synthesis, and (d) no synthesis. The relative difficulty of the film strips, evaluated by different means, gives clues as to film-strip characteristics influencing difficulty. The results are considered preliminary to a fruitful approach to construction of visual instructional materials.—*S. S. Marsolf*.

3815. Neidt, Charles O., & French, Joseph L. (U. Nebraska) **Reaction of high school students to television teachers.** *J. genet. Psychol.*, 1962, 100 (2), 337-344.—Both quantitative and qualitative data were obtained indicating that the majority of students preferred the classroom condition to the television condition when the same teacher is available. Apparently, the most influential factor contributing to unfavorable attitudes toward television is the lack of intercommunication between teachers and students.

The conclusions of this study may be summarized as follows: although high school students prefer conventional classroom instruction to television-correspondence instruction, it is not because they perceive the characteristics of the teacher differently in the 2 situations, but because of factors inherent in the instructional television situation.—*Author abstract*.

3816. Reid, R. L. (U. Aberdeen) **Aspects of programmed learning.** *Bull. Brit. Psychol. Soc.*, 1962, 48, 10-15.—A general introduction to the subject illustrated by the author's experiences in developing several linear programs for use in diverse fields.—*C. C. Kiernan*.

3817. Royds, A. (U. Manchester) **Intelligibility of school television programmes.** *Brit. J. educ. Psychol.*, 1962, 32(2), 159-165.—383 Ss, aged 8-14, made "free-writing" statements following one of a group of TV programs. Word counts and counts of statements were compared to words and statements in the scripts. TV material was verbally intelligible, one reason being that it approximated the standards of the children's own language.—*B. T. Jensen*.

3818. Weckin, Stanley. (Edward R. Johnstone Training & Research Cent., Bordentown, N. J.) **Word learning in an automated teaching situation as a function of display condition.** *J. educ. Psychol.*, 1962, 53(4), 165-169.—An experiment was conducted to ascertain the more efficient mode of presenting materials for word learning in a multiple choice automated teaching situation. Using 32 delinquent Ss, it was found that a situation in which visual response alternatives were coupled with an auditory stimulus faster learning ($p < .001$) and consequent better retention than one using auditory response alternatives to visual stimulus. These results were attributed to differential fading of the stimulus trace. Differential transfer ($p < .01$) in the 2 conditions was attributed to degree of completed learning.—*Journal abstract*.

3819. Willey, C. F. (Norwich U.) **Objective scoring of the completion test.** *Psychol. Rep.*, 1962, 10(2), 501-502.—A description of how a coded index can be used with completion items in programmed instruction or in testing to provide objective scoring.—*B. J. House*.

ATTITUDES & ADJUSTMENT

3820. Adinarayan, S. P., & Rajamanickam, M. (Annamalai U, South India) **A study of student attitude toward religion, the spiritual and the supernatural.** *J. soc. Psychol.*, 1962, 57(1), 105-111.—3 tests were used—Vetter's Attitude Scale, Krishnan's Questionnaire for Cyclothymes-Schizothymes, and a Questionnaire on Religion consisting of 30 items regarding the nature of God, future life, priests, the spirit world, personal religion, and formal religion. The Ss, 300 in number, were all students of the Annamalai University. An important finding was the positive correlation between religious attitude and radicalism-conservatism attitude (+.477). There was no significant relationship between religious attitude and personality types. Students coming from high income groups were more religious than the students coming from low income groups. The city student group was more religious than the town group, and the town group more than the village group. In student religion, prayer, sacred books, communal worship, and festivals play a more important part than

priests, the future live, and the spirit world.—*Author abstract.*

3821. Behar, L., & Altrocchi, J. (Duke U.) Agreement on the concept of the ideal therapist as a function of experience. *J. clin. Psychol.*, 17(1), 1961, 65-69.—A partial replication of Fiedler's study (see 25: 2483) reported earlier was attempted in asking 65 nurses, varying in experience in psychiatric nursing therapy, to describe the ideal psychiatric nursing therapist. The nurses were divided into 4 groups according to their experience; they also were asked, as a control question, to describe the ideal female high school teacher. Evaluation of the Q-sort results showed that agreement significantly increased with increased experience. However, Ss tested immediately after an intensive training period showed a temporary confusion in their role concept and their description of the ideal psychiatric nursing therapist. No appreciable differences were evident among the 4 groups in agreement on concept of an ideal high school teacher.—*V. J. Biliuskas.*

3822. Carney, Richard Edward. (U. Michigan) An analysis of university student behaviors with measures of ability, attitude, performance and personality. *Dissert. Abstr.*, 1961, 22(6), 2073.—*Abstract.*

3823. Cox, F. N. (U. Melbourne, Australia) Educational streaming and general and test anxiety. *Child Develpm.*, 1962, 33(2), 381-390.—The Yale General and Test Anxiety scales were administered to 266 children attending 4th and 5th grades. The children had been subdivided into superior and inferior subgrades on the basis of their performance in the 1st 3 grades. 3 hypothesis were tested: The correlation between the 2 scales would be positive, the correlation between subgrade level and test anxiety would be negative, and general anxiety scores would be independent of educational streaming practices. The results were consistent with these expectations.—*W. J. Meyer.*

3824. Davidson, Helen H., Riessman, Frank, & Meyers, Edna. (City Coll., N. Y.) Personality characteristics attributed to the worker. *J. soc. Psychol.*, 1962, 57(1), 155-160.—The hypothesis was that persons in higher occupational categories would be rated more positively in personality characteristics than persons in the lower occupational groups. The Ss were 241 undergraduate students, males and females, attending classes in psychology and education. They varied in social class background. A checklist of 30 personality characteristics, with regard to 5 selected occupational groups was used. Before checking the list of characteristics, the students were asked to give a brief personality description of the individual who had been described to them using Asch's technique. The occupational groups differed significantly in 12 of the 30 characteristics. Positive characteristics: industrious, practical, thoughtful, serious, polite, confident, cautious, intelligent, were distributed about equally among the factory owner, assistant office manager, teacher, and physician. The worker emerged as having the lowest mean score for all these qualities. More negative characteristics were attributed to factory workers than to any of the other occupational groups.—*Author abstract.*

3825. Defares, P. B., Kema, G. N., & van der Werff, J. J. Voorkeursstructuur van beroepen bij de overgang naar het vervolgonderwijs. [Prefer-

ence for professions before enrolling for higher education.] *Mens Onderneming*, 1962, 16(3), 159-172.—The findings of 2 factor-analyses, based on correlations between scores representing preference for professional careers, were compared with theoretical points of view. Experiments included 195 boys and 198 girls and revealed 4 factors which indicated different groups of professions. The data for boys could be interpreted in terms of status and knowledge required, whereas girls seemed to prefer specific forms of "taking care" of other people.—*J. A. Lückers.*

3826. Dipboye, W. J., & Anderson, W. F. (Syracuse U.) Occupational stereotypes and manifest needs of high school students. *J. counsel. Psychol.*, 1961, 8(4), 296-304.—High school seniors rated 8 occupations on 14 of Edwards' manifest needs. Significant differences occurred in stereotypes. Sex differences were minimal. Need satisfaction in occupation is discussed.—*E. R. Oetting.*

3827. Ferullo, Robert Joseph. (Boston U.) A Q-technique study of the self-concepts of two groups of college students varying in degree of speaking ability. *Dissert. Abstr.*, 1961, 22(3), 914.—*Abstract.*

3828. Furst, Edward J., Raygor, Alton W., & Crofoot, Alan P. (Ohio State U.) Basic motivation and concept of nursing as chosen profession. *J. Psychol.*, 1962, 54(1), 85-100.—The hypothesis was tested that the profession an individual chooses is the one which, according to his concept of it and as he imagines himself in it, seems to him to satisfy most fully his strongest needs. A motivational and a concept sketch were accordingly outlined for 20 student nurses. The corresponding sketches were then compared and the concept sketch rated on need-fulfillment. The mean rating was considered to support the hypothesis well. Further support came from the correlation between the ratings and certainty of choice of profession. Case material was presented to illustrate relationships between personality and concept, and to explore important developmental influences.—*Author abstract.*

3829. Gaito, John. (Kansas State U.) A potential indicator of college motivation. *Psychol. Rep.*, 1962, 10(2), 393-394.—"Exploratory research with a simple test of 'college motivation' is discussed. The test was successful in predicting grade-point average at one institution but unsuccessful at a second college."—*B. J. House.*

3830. Garretson, Wynona Smutz. (State U. Iowa) College as social object: A study in consensus. *Dissert. Abstr.*, 1961, 22(5), 1732-1733.—*Abstract.*

3831. Gibbs, N. L., Kirman, B. H., Reed, M., Stephen, E., & Clarke, A. D. B. (Child Guidance Training Centre, Osnauburgh St., London, England) Handicapped school leavers. *Bull. Brit. Psychol. Soc.*, 1962, 47, 43-55.—A summary of the evidence on the needs of handicapped school leavers and on the facilities provided for them in Britain, with recommendations toward the improvement of their position.—*C. C. Kiernan.*

3832. Goldstein, Michael J., & Davis, Diane. (U. California, Los Angeles) The impact of stimuli registering outside of awareness upon personal preferences. *J. Pers.*, 1961, 29(3), 247-257.—"The role of stimulus awareness in modifying choice be-

havior was investigated. High school Ss were required to choose between pairs of faces the one preferred for class officers. The control group ($N=42$) made their choices without any incidental stimulation. . . . The experimental group ($N=278$) received incidental stimulation of the words GOOD and BAD beneath one picture in each pair in flashes of 1 msec. at a rate of 1 per sec. Of the experimental Ss 32 percent reported awareness of the words; 68 percent did not. . . . (a) For the preferred pictures, words of which S was aware influenced choices but words of which S was unaware did not. (b) For non-preferred pictures, the same trend was present except that where compliance was found with preferred pictures under conditions of awareness, negative influence was found with nonpreferred pictures under the awareness condition."—G. T. Lodge.

3833. Hobart, Charles W. (U. Redlands) **The pregnant high school girl: An analysis and a proposal.** *Personnel Guid. J.*, 1962, 40(9), 786-790.—A program is suggested which would permit pregnant high school girls to complete their studies, which would include a course on home arts for young mothers, provide training in making a suitable home, and establish a reference group with which the girl can identify.—S. Kavruck.

3834. Ikenberry, Stanley O. (Michigan State U.) **Factors in college persistence.** *J. counsel. Psychol.*, 1961, 8(4), 322-329.—A discriminant analysis of 7 variables for 1st-year college persistence, achievement, and sex. The 1st function weighted heavily the College Qualification test, Michigan State University Reading Test, Test of Critical Thinking, and a social status score from parents' education and father's occupation. The 2nd function is interpreted as a cultural sex function. Inventory of Belief, Differential Values inventory, and Rokeach's Dogmatism Scale show minimal weighting.—E. R. Oetting.

3835. Lamy, Richard Emile. (U. Oregon) **Conceptions of maladjustment and mental illness among college undergraduate students.** *Dissert. Abstr.*, 1961, 22(5), 1717.—Abstract.

3836. Lichter, Solomon O., Rapien, Elsie B., Seibert, Frances M., & Sklansky, Morris A. (Scholarship & Guidance Ass., Chicago) **The drop-outs.** New York: Free Press Glencoe, 1962. xiii, 302 p. \$5.50.—The experiences and findings of a 3-year treatment study of a group of intellectually capable Chicago youngsters who wanted to leave or who left high school. A substantial number were handicapped by their own emotional difficulties and those of their families. Usefulness of prolonged counseling and importance of early diagnosis are illustrated. It is suggested that school can take on special psychodynamic meaning of a conflictual nature. It demonstrates how teachers, parents, counselors, and community can cooperate to reduce drop-outs and salvage valuable human potential.—C. H. Miley.

3837. McClintock, Charles G., & Turner, Henry A. (U. California, Santa Barbara) **The impact of college upon political knowledge, participation, and values.** *Hum. Relat.*, 1962, 15(2), 163-176.—Questionnaires on political knowledge and involvement were given to 661 freshmen and seniors from 10 California colleges. With controls on sex and grade average, no significant differences were found. Secondary analyses showed that students who identi-

fied themselves as Democrats did not differ markedly from those identifying themselves as Republicans. "And finally, differences in level of participation in college activities among seniors related to level of high-school participation for both males and females, and to anticipated political involvement for females, but not to any of the other dependent measures of political knowledge, involvement, and ideology."—W. W. Meissner.

3838. McDonald, Robert L. (South Carolina State Hosp.) **Personality characteristics of freshman medical students as depicted by the Leary system.** *J. genet. Psychol.*, 1962, 100(2), 313-323.—The Leary Interpersonal System was used to analyze MMPIs and Interpersonal Check Lists obtained from 64 freshman medical students. These results were compared with other normative data for the public interpersonal level (I-S) and the level of underlying character structure (III-MM). 91% of the medical students presented healthy, symptomatic behavior and 81% described themselves as responsible, generous, managerial persons in interpersonal situations. Characterologically 85% had underlying managerial, competitive, responsible feelings. In spite of the large percentages of "healthy" behavior at this level and the "facade" level, the most frequent Ideal of these students was to be a critical-sadistic person. These interlevel conflicts point to the possibility of future poor adjustment on the part of many of the students.—Author abstract.

3839. Mehman, Benjamin. (Kent State U.) **Similarity in friendships.** *J. soc. Psychol.*, 1962, 57(1), 195-202.—Independent pairs of "Very Best Friends," "Friends," and "Enemies" were identified on a college campus and were administered the Edwards Personal Preference Schedule and a "Friendship Rating Scale" to determine whether there is similarity or complementarity in such relationships. A few statistically significant positive correlations were found for all groups for the PPS data, and a considerably greater number of significant correlations for the rating scale data, with agreements in perception of the relationships characteristically found for the first 2 groups and disagreements for the "Enemy" group. These data were interpreted as less than compelling evidence for general tendencies toward either similarity or complementarity in friendships, and some speculations regarding Riesman's other-directed individual were offered.—Author abstract.

3840. Morse, W. C. (U. Michigan) **Perceptions of class-room mental health, group process and learning from diverse points of view.** *Percept. mot. Skills*, 1962, 14(3), 390.—Teacher, pupil, and observer perceptions of mental health, learning, and democratic group process were secured from 30 public school classrooms. Teachers responded on a psychophilosophical value, 40-statement forced-rank device, made open-ended responses to classroom situations, and rated their present classes. Over 700 pupils responded on a 214-item questionnaire. Trained psychologists made classroom observations. Pupils and observers tend to view mental health, substantive learning, and democratic group process as interrelated in the classroom while the teacher does not. Examination of individual classrooms shows idiosyncratic patterning of these properties.—W. H. Guertin.

3841. Murray, John B. (St. John's U.) College students' concepts of psychologists and psychiatrists: A problem in differentiation. *J. soc. Psychol.*, 1962, 57(1), 161-168.—Some reasonably accurate delineations of the role and background of psychiatrist and psychologist emerged from testing a group of 137 college students. However, there were strange overlaps of the 2 roles. Moreover, prominent functions of the psychologist, such as work with individuals as opposed to groups, were overlooked.—*Author abstract.*

3842. Panda, K. C., & Kanungo, R. N. (Ravenshaw C., Cuttack, India) A study of Indian students' attitude towards the motion pictures. *J. soc. Psychol.*, 1962, 57(1), 23-31.—The purpose of this study was (a) to construct a scale for measuring attitude towards the motion pictures, (b) to ascertain the existing attitudes of Indian students by using this scale. A movie attitude scale of Thurstonian type was constructed and given to 385 students from schools and colleges of Orissa. A comparative analysis was made of the attitudes of students in regard to their sex, educational level, and chronological age. The findings were: students in general showed favorable attitudes towards the motion pictures. The male students' attitudes were significantly more favorable than those of females. Sex difference in attitude scores seemed to be more evident at the college level than at the higher secondary level (not statistically significant). College students' attitudes were significantly more favorable than those of the higher secondary students.—*Author abstract.*

3843. Panda, K. E., Das, J. K., & Kanunge, R. N. (Utkal U., Ravenshaw Coll., Cuttack, India) A cross-cultural study of film preferences on an Indian student population. *J. soc. Psychol.*, 1962, 57(1), 93-104.—The main objective of this investigation was to make a comparative analysis of students' (a) film preferences, and (b) determinants of film preferences with respect to sex, age, and educational background. The problem was investigated through a direct questionnaire technique. The results obtained were: students in general preferred most social films, next family pictures, scientific pictures, and so on. Romantic and love films were strikingly less popular among the Indian students. Films which were educative, information giving, and instructive were preferred more by the higher secondary students. College student's preference centered around the films of human relationships. Film preferences of students of the lower age group (below 18 years) were significantly different from the higher age group (18 years and above). Natural scenery, music, humor, and pathos were the most emphasized determinants of student preferences. Significant differences in determinants of preferences were obtained between male and female and higher secondary and college students. The effect of age on the determinants of film preference was small.—*Author abstract.*

3844. Payne, David A., & Farquhar, William W. (Michigan State U.) The dimensions of an objective measure of academic self-concept. *J. educ. Psychol.*, 1962, 53(4), 187-192.—Following from the assumption that a student's self-concept is a functionally limiting and facilitating factor in academic performance which interacts with motivation, a 119-item instrument (the Word Rating List) was developed. The instrument was a subtest of an objec-

tive motivational test battery (the M scales). Student's rated 1-, 2-, or 3-word concepts on a 4-point scale as they thought their teachers would in describing them as students. Item discrimination was determined by chi square analyses of the responses of statistically defined under- and over-achieving 11th graders. 48 items remained after cross-validation for each sex, with 35 in common, which had Hoyt's analysis of variance reliabilities in the .90s. Multiple scalogram analysis yielded a global dimension for both males and females. Additionally, 3 male and 4 female interpretative dimensions were found.—*Journal abstract.*

3845. Parida, Gurupada. (Ravenshaw Coll., Cuttack, Orissa, India) Superstitions among college students. *J. soc. Psychol.*, 1962, 57(1), 3-10.—Attitude changes towards superstitions of a group of university students coming from a backward part of India. The purpose of the study was to observe the influence of college training on their superstitious beliefs and practices. The findings indicate that students, irrespective of the year in college or their major area of study, all maintained the same degree of belief in the superstitions. Background characteristics such as place of birth, town or village, family occupation, major field of study in the college of arts or science, were not significant predictors of differences in either beliefs or practices of superstitions.—*Author abstract.*

3846. Schutz, Richard E., Staats, Arthur W., & Staats, Carolyn K. (Arizona State U.) Conditionability of responses to occupational scale items of the Strong Vocational Interest Blank for men. *Psychol. Rep.*, 1962, 10(2), 447-450.—As a test of the hypothesis that vocational interests form a homogeneous response class, an attempt was made to condition, by verbal reinforcement, responses which either corresponded to or were in opposition to selected scales. 80 12th-grade boys were given either the "Physician (Rev.)" or the "Carpenter" scale of the Strong test. Failure to obtain evidence of conditioning was contrasted with previous successful conditioning with personality scales.—*B. J. House.*

3847. Singh, Paras N., Huang, Sophia C., & Thompson, George G. (Ohio State U.) A comparative study of selected attitudes values, and personality characteristics of American, Chinese, and Indian students. *J. soc. Psychol.*, 1962, 57(1), 123-132.—37 American, 37 Chinese, and 37 Indian students attending an American university responded to the following questionnaires: the Allport-Vernon-Lindzey, Morris' Ways to Live, Sanford and Older's AE Scale, and Edwards' Personal Preference Schedule. The following differences were found: (a) American students were more self-centered while both Chinese and Indian students were more society-centered; (b) American students were more theoretical than the other groups; (c) Indian students were more politically and economically oriented than the other groups; (d) Indian and Chinese students were more authoritarian than American students; (e) American students were more religious than the other groups; and (f) Indian and Chinese students showed a greater preference for enjoying life through group participation, while American students preferred the many-sided, flexible approach to the good life.—*Author abstract.*

3848. Turner, Ralph H. (U. California, Los Angeles) Some family determinants of ambition.

Sociol. soc. Res., 1962, 46(4), 397-411.—Several hypotheses regarding family determinants of ambition were tested on the basis of questionnaire data from 2175 nonethnic high school seniors in Los Angeles. High ambition and a relative emphasis on the educational rather than material component of ambition were found to be associated with high breadwinner's education relative to occupation, higher mother's than father's education, and a small family. Level but not emphasis in ambition may be related to family stability. Position and sex of siblings were unrelated to ambition when controls were introduced for family size.—*Journal abstract*.

3849. Zeitlin, Herbert. High school discipline: 442 teachers report on disciplinary problems in seven Phoenix high schools. *Calif. J. educ. Res.*, 1962, 13(3), 116-125.—A 1-year total of 14,251 misbehavior citations on a student body of 12,023 is reported in terms of 12 categories: disturbance, disobedience, disrespect, misrepresentation, ignoring health and safety factors, smoking, fighting, property damage, profanity and obscenity, gambling, theft, and cheating. 82.5% fall in the first 3 categories. The reported misbehaviors are considered in terms of 13 questions, per cent of student body being so reported (49), differences among schools and among ethnic groups, sex differences, and the like.—*T. E. Newland*.

SPECIAL EDUCATION

Reading

3850. Copple, Lee Biggershaff. (Vanderbilt U.) Motor development and self-concept as correlates of reading achievement. *Dissert. Abstr.*, 1961, 22(4), 1241.—*Abstract*.

3851. Downing, J. A. (U. London) The relationship between reading attainment and the inconsistency of English spelling at the infant's school stage. *Brit. J. educ. Psychol.*, 1962, 32(2), 166-177.—After referring to reports of previous use of simplified spelling and transition to regular spelling, the author briefly describes the augmented roman alphabet.—*B. T. Jensen*.

3852. McLeod, J. (U. Queensland) The estimation of readability of books of low difficulty. *Brit. J. educ. Psychol.*, 1962, 32(2), 112-119.—In Study I 255 children read materials from different texts with word recognition as the criterion, error on more than 3 words indicated unreadability for that child. Reading age of each S was assessed by another test. In Study II 375 children, tested for ability to comprehend, read passages from texts and answered questions. While agreeing fairly well with estimates by readability formula on 3 books, this empirical test gave different results on a more difficult book.—*B. T. Jensen*.

3853. Otto, W., & Lasswell, A. (U. Oregon) Relationship of secondary beginning strokes in handwriting to reading ability. *Percept. mot. Skills*, 1962, 14(3), 530.—Secondary beginning strokes (SBS) is the initial upstroke in handwriting frequently found on words beginning with lower case u, v, w, and y. Previous work reports a relationship between SBS and personal adequacy. This study showed poor readers used a significantly greater number of SBS than the good readers.—*W. H. Guertin*.

3854. Vernon, M. D. (U. Reading) Specific dyslexia. *Brit. J. educ. Psychol.*, 1962, 32(2), 143-

150.—Those with reading disabilities must be studied as individuals. Some have difficulties not caused by emotional factors—specific dyslexia.—*B. T. Jensen*.

3855. Vernon, Philip E. (U. London) The determinants of reading comprehension. *Educ. psychol. Measmt.*, 1962, 22(2), 269-286.—To determine the relative variance of test content, method, and error components, parallel forms of 7 specially constructed vocabulary and reading tests were administered to 108 British and 75 American college students. Although the results did not support Vernon's belief that method factors would have the strongest influence, higher validities were obtained with a reading test employing an unconventional method. "Centroid factor analyses revealed a strong Comprehension factor, orthogonal to the Vocabulary factor, among both groups in the reading tests." Several general observations are also offered.—*W. Coleman*.

Mental Retardation

Gifted Students

3856. Cassel, Russell N., & Hendsch, Gene. (Lompoc Unified School District, Calif.) A comparative analysis of occupational interest scores between gifted and typical 5th grade pupils. *J. Psychol.*, 1962, 54(1), 241-244.—This study was concerned with making a comparative analysis between scores from 2 occupational interest inventories (the Picture Interest Inventory and the Occupational Interest Inventory both published by the California Test Bureau) for 30 gifted and 34 typical 5th-grade pupils. No statistically significant occupational interest differences were found between gifted and typical 5th-grade pupils as measured by referenced inventories. The discriminant function multiple point bi-serial R_c (corrected for shrinkage) for the 1st inventory was $.166 \pm .131$, and for the 2nd $.252 \pm .128$. No significant differences were obtained between the Ms for the part scores on either inventory for the 2 groups.—*Author abstract*.

3857. Lesser, Gerald S., Davis, Frederick B., & Nahemow, Lucille. (Hunter Coll.) The identification of gifted elementary school children with exceptional scientific talent. *Educ. psychol. Measmt.*, 1962, 22(3), 349-364.—2 forms of a 91-item science aptitude test were constructed for the identification of science talent in elementary school children. "The items included in these tests were designed to measure (1) the ability to recall scientific information, (2) the ability to assign meaning to observations, (3) the ability to apply scientific principles in making predictions, and (4) the ability to use the scientific method." The tests were administered at the beginning of the school year and the scores were compared with scores on 7 science achievement tests given at the end of each unit during the school year. The predictive r 's were .77 and .71 for the 2 forms. The parallel forms reliability of the aptitude tests was .64 and the reliability of the composite achievement test was .82.—*W. Coleman*.

EDUCATIONAL GUIDANCE

3858. Blocher, Donald H., & Schutz, Richard A. (U. Minnesota) Relationships among self-descriptions, occupational stereotypes, and vocational preferences. *J. counsel. Psychol.*, 1961, 8(4), 314-317.—Self- and ideal-self-concept on a descriptive

check list are more similar to a high interest occupational stereotype than to the stereotype of an occupation rated by the high school senior boys as being of low interest.—*E. R. Oetting.*

3859. Coelho, G. V., Silber, E., & Hamburg, D. A. (National Inst. Mental Health.) **Use of the student TAT to assess coping behavior in hospitalized, normal, and exceptionally competent college freshmen.** *Percept. mot. Skills*, 1962, 14(3), 355-365.—A Student-TAT, consisting of 10 ambiguous college situations, and a simple reliable scoring method, were developed to measure coping behavior by the student in stressful college freshman situations. The test, given to 3 groups of college freshmen, decisively differentiated between a clinically disturbed group and 2 normal groups. Research is now in progress to test the uses of the Student-TAT in predicting gross student vulnerability among college freshmen shortly before they enter college.—*W. H. Guertin.*

3860. Davis, Donald A. (Western Michigan U.) **An experimental study of potential dropouts.** *Personnel Guid. J.*, 1962, 40(9), 799-802.—A combination of factors including early identification of potential dropouts, establishment of friendly pupil-staff relationships, use of consultants, field trips, and counseling has resulted in: a decrease in the rate of dropout, better marks, and fewer referrals for discipline.—*S. Kavruck.*

3861. Eells, Kenneth. (Student Health Cent. California Inst. Technology) **A vivid method of presenting chances for academic success.** *J. counsel. Psychol.*, 1961, 8(4), 344-350.—A graphic method of demonstrating chances of success in college to beginning students is discussed.—*E. R. Oetting.*

3862. Goodstein, Leonard D., & Crites, John O. (State U. Iowa) **Brief counseling with poor college risks.** *J. counsel. Psychol.*, 1961, 8(4), 318-321.—33 students were in study and control groups. "There was no evidence that vocational educational counseling as it is usually conducted leads to greater academic achievement by low ability college students."—*E. R. Oetting.*

3863. Lloyd, David O. (Mesa Public Schools, Ariz.) **Counselor and counselor trainer attitudes toward counselor certification in the United States.** *Personnel Guid. J.*, 1962, 40(9), 791-798.—Based on opinions of members of the National Association of Guidance Supervisors and Counselor Trainers and members of the American School Counselor Association, 8 specific recommendations concerning counselor certification are suggested. Research should be directed towards the adequacy of the opinions expressed and to their implementation.—*S. Kavruck.*

EDUCATIONAL MEASUREMENT

3864. Baugh, Verner S., & Robinowitz, Ralph. (VA Hosp., Waco, Tex.) **Admission testing program.** *J. genet. Psychol.*, 1962, 100(2), 309-312.—Because of the increased admissions and shortage of personnel, the need arose for some type of psychological evaluation other than individual testing. Therefore, an Admissions Testing Program was begun. The following areas of appraisal are covered: behavioral observation, evaluation of mental functioning, including estimation of the intellectual level, concept formation, and areas of impairment in thinking

and perception; salient features of the personality, attitudes and conflicts, personality disturbances leading to psychodiagnostic impression, recommendations for treatment and/or planning where possible. The test battery consists of Kent E-G-Y Oral Emergency, an original Picture Completion Test, Visual Motor Gestalt, Draw-A-Person, and the Rotter Sentence Completion. Tests are administered to small groups of between 6-15. The approach to group test interpretation is the same as that towards individual evaluative material.—*Author abstract.*

3865. Bonnardel, R. **Recherche sur les concours d'entrée aux grandes écoles.** [Study of entrance examinations for schools of higher education.] *Travail hum.*, 1962, 25(1-2), 29-48.—About 10 years ago, the correlation between scores on entrance examinations and final grades was .38. But with greater numbers of applicants and higher admission standards, it has dropped to .02. The author finds that the more "classical" subject matter tends to choose the more studious applicants.—*R. W. Husband.*

3866. Dressel, Paul L. (Chrmn.) **Proceedings of the Invitational Conference on Testing Problems, 1961.** Princeton, N. J.: Educational Testing Service, 1962. 108 p.—10 papers presented at the conference are reproduced in this publication. The contribution of factor analytic studies to the understanding and improvement of achievement measurement was discussed by J. B. Carroll in "Factors of Verbal Achievement," J. W. French in "Schools of Thought in Judging Excellence of English Themes," and L. R. Tucker in "Factor Analysis of Relevance Judgments: An Approach to Content Validity." The use of achievement tests for awarding course credit was covered by J. N. Arbolino, Ruth D. Churchill, E. G. Erickson, and W. G. Warrington. John E. Ivey spoke on "The Management of the Learning Environment," and Dewey B. Stuit outlined means for measuring the quality of a college or university. The final paper on "The Nature and Use of Institutional Research" was given by J. I. Doi.—*W. Coleman.*

3867. Feldhusen, John F., & Klausmeier, Herbert J. (Wisconsin State Coll.) **Anxiety, intelligence, and achievement in children of low, average, and high intelligence.** *Child Developm.*, 1962, 33(2), 403-409.—"Forty children with WISC IQs of 56 to 81, 40 children with WISC IQs of 90 to 110, and 40 children with WISC IQs of 120 to 146, divided equally by sex in each group, were used as Ss in an analysis of the relationship of anxiety, as measured by the Children's Manifest Anxiety Scale, to IQ and achievement." Girls had significantly higher anxiety scores than boys; the Low IQ group had significantly higher anxiety scores than the average or superior IQ groups who did not differ from one another; the *r*'s between anxiety and achievement for the low and average IQ Ss were negative.—*W. J. Meyer.*

3868. Francesco, E. (Middleton, Wis.) **Below chance performance on a verbal test: A replication.** *Psychol. Rep.*, 1962, 10(2), 601-602.—"Data are presented for a sample of 152 male Ss to illustrate performance on the VPT [Verbal Power Test of Concept Equivalents] below the manifest chance level."—*B. J. House.*

3869. Haney, Russell; Michael, William B., & Gershon, Arthur. (U. Southern California) **Achievement, aptitude, and personality measures as predictors of success in nursing training.** *Educ. psy-*

chol. Measmt., 1962, 22(2), 389-392.—With a sample of 82 freshmen trainees, the California Reading and Math tests, 5 parts of the Employee Aptitude Survey Tests, and the MMPI were used as predictors. High school grade average in academic courses and high school chemistry grades were also used as predictors. 5 criteria measures were employed ranging from class grades to ratings of ward performance. Highest r between the 25 predictor variables and the 5 criterion measures was .43 between high school chemistry and microbiology. Significant negative r 's were obtained between the Hs and Pd scales of the MMPI and several of the criteria measures.—*W. Coleman.*

3870. Lewis, John W. (Southern Illinois U.) Comparing zero-order correlation from SCAT total and multiple correlations from SCAT Q and V at Southern Illinois University. *Educ. psychol. Measmt.*, 1962, 22(2), 397-398.—Although the multiple R did account for more criterion variance than the zero-order r , the differences were not thought to be statistically significant as no allowance for shrinkage had been made. The sample involved 1998 freshmen students at Southern Illinois University.—*W. Coleman.*

3871. Lewis, John W. (State U. Iowa) Utilizing the stepwise multiple regression procedure in selecting predictor variables by sex group. *Educ. psychol. Measmt.*, 1962, 22(2), 401-404.—A battery of 11 predictor variables was used to predict first quarter grade point average by sex group. SCAT total yielded the largest r with the criterion. "SCAT Total, high school rank, and Co-operative English Grammar accounted for all but .02 of the explained male criterion variance and all but .01 of the explained female criterion variance." The multiple R for males was .48 and .64 for females.—*W. Coleman.*

3872. Michael, William B., Jones, Robert A., Cox, Anna; Gershon, Arthur; Hoover, Marvin; Katz, Kenneth, & Smith, Dennis. (U. Southern California) High school record and college board scores as predictors of success in a liberal arts program during the freshman year of college. *Educ. psychol. Measmt.*, 1962, 22(2), 399-400.—For 422 liberal arts freshmen at the University of Southern California, high school grade average was more predictive of success in college than either part or total scores of the CEEB. The multiple R for the combined predictors was only slightly higher. The r 's for the women students were higher than the r 's for the men.—*W. Coleman.*

3873. Rapier, Jacqueline L. Measured intelligence and the ability to learn. *Acta psychol., Amsterdam*, 1962, 20(1), 1-7.—Woodrow's review of experimental evidence challenged the belief in the inherent relation of intelligence and learning, but measures of learning in school and laboratory do not support this conclusion. Weaknesses in methodology presumably underlie the results on which Woodrow bases his conclusion. New approaches include the use of subnormals, more precise studies of individual differences, the learning process itself, and a broadening of the knowledge of intelligence.—*G. Rubin-Rabson.*

3874. Shanker, Prem. (U. Washington) The contribution of EPPS scores to differential and multiple absolute academic prediction. *Dissert. Abstr.*, 1961, 22(6), 2065.—*Abstract.*

3875. Verhaegen, P. (Centre Psychologie Pédagogie, Elisabethville, Katanga, Congo) Possibilité d'une orientation scolaire basée sur des épreuves psychologiques chez des enfants africains. [Possibility among African children of educational guidance based on psychological tests.] *Rev. Psychol., appl.*, 1962, 12(2), 123-133.—Over a period of years follow-up studies were made of students examined in Katanga by the Psychological Centre to determine the predictive validity for secondary school marks of scores earned on various psychological tests. In general the correlations were in the .40s and .50s. It was concluded that tests developed on a specific population may not be of great use in a different group. When a study was made of the predictive efficiency for different classes it was found that the weakest correlations appeared for classes where the teacher seemed unable to stimulate the pupils. This would seem to indicate that psychological tests function usefully only for well-run schools.—*W. W. Wattenberg.*

3876. Wolfson, W., & Lo Cascio, R. (Middletown State Hosp.) Digit symbol performance of nursing school applicants. *J. clin. Psychol.*, 1961, 17(1), 59.—The digit symbol raw scores of 29 female nursing school applicants, age 18, were compared with Wechsler standardization samples. Then the W-B Digit Symbol weighted scores of 68 female applicants of 17-19 years of age were compared to the Wechsler standardization population for that test. The findings failed to support Wechsler's assumption concerning the inferior functioning of nursing school applicants on the Digit Symbol test.—*V. J. Bieliauskas.*

Aptitudes

3877. Andrews, Dorothy E. (Winona State Coll.) Comparative study of two methods of developing music listening ability in elementary school children. *J. Res. music Educ.*, 1962, 10, 59-64.—28 5th-grade Ss, exposed to a self-initiated listening experience with phonograph, earphones, and supplementary visual materials, developed more positive attitudes toward music than control Ss who were given a group listening period and discussion of information about the composers. However, an equal amount of factual information was learned with either method.—*D. S. Higbee.*

3878. Gordon, Edwin. (State U. Iowa) A study to determine the effects of training and practice on Drake Musical Aptitude Test scores. *J. Res. music Educ.*, 1961, 9, 63-74.—10 9th grade Ss were tested before and after 20 ½-hour periods devoted to training and practice of musical phrases similar to those used in the test. Posttest scores showed improvement, though not to a significant degree; but 10 control Ss showed a similar trend.—*D. S. Higbee.*

3879. Jones, Reginald L. (Miami U.) A study of the validity of the pre-engineering ability test. *Educ. psychol. Measmt.*, 1962, 22(2), 393-396.—The Pre-Engineering Ability Test (PEAT) and the American College Test (ACT) were administered to 68 pre-engineering students at a midwestern state university. Criteria were first semester grade-point average, chemistry grade, and math grade. PEAT and ACT were about equally effective in their predictive ability with r 's ranging from .47 to .72.—*W. Coleman.*

3880. Lepez, R., & Kourovsky, F. *Les test d'acquisitions scolaires 5e-4e.* [Scholastic aptitude tests for the fifth and fourth forms.] *Rev. Psychol. appl.*, 1962, 12(2), 105-122.—A description is given of a test battery designed to measure scholastic aptitude in the 5th and 4th forms of French schools. This consists of tests of French, Latin, mathematics, and modern languages. Data are given as to standardization.—*W. W. Wattenberg.*

3881. Repina, T. A. (Inst. Psychology, RSFSR Acad. Pedagog. Sciences) *O nekotorykh metodikakh izucheniia zvukovystnoi chuvstvitel'nosti u detei doshkol'nogo vozrasta: Soobshchenie II. Differentsirovka chistykh tonov v usloviakh opredmechvaniia.* [Some procedures of studying the sound pitch sensitivity in preschool children: Communication II. Differentiation of pure tones under conditions of objectivation.] *Dokl. Akad. Pedagog. Nauk RSFSR*, 1961, No. 5, 69-72.—20 children (age 3-5) were trained to discriminate pure tones representing animal's voices (a 250 cycle tone was a "bear's voice," a 400 tone was a "dog's voice," and a 1500 tone was a "chicken's voice"). Ss who previously had been found to be "pitch deaf" were able to discriminate the 2 extreme tones, the older Ss, even the middle tone.—*A Cuk.*

Achievement

3882. Aliferis, James, & Stecklein, John E. *Aliferis-Stecklein Music Achievement Test: College Midpoint Level manual.* Minneapolis, Minn.: Univer. Minnesota Press, 1962. 36 p. \$3.75.—The college midpoint level test "measures, at the end of the sophomore year or the beginning of the junior year, the music student's power of auditory-visual discrimination of melodic intervals, chords, and rhythms. The test is given from the piano or by pre-recorded tape and lasts approximately 45 minutes." An 8-page test booklet and scoring instructions accompany the manual.—*E. L. Borrowman.*

3883. Fink, Martin B. (Mt. Diablo, Calif.) *Objectification of data used in underachievement-self concept study.* *Calif. J. educ. Res.*, 1962, 13(3), 105-112.—Further analyzing the data obtained in an earlier study (see 37:2008) it was found that at the .05 level of confidence or better, 48 items on the California Psychological Inventory were found to discriminate between high- and low-achieving boys, 23 between high- and low-achieving girls, and 72 between high- and low-achieving boys and girls. The nature of these items "would appear to support the judges' decisions as to adequacy or inadequacy of self-concept." The Ac (Achievement-conformance) and So (Socialization) scales of the CPI appear to be valid achievement discriminators.—*T. E. Newland.*

3884. Gega, Peter C., & Karlsen, Bjorn. (San Diego State Coll.) *Situational vs. non-situational casting of items in the STEP: Elementary science.* *Calif. J. educ. Res.*, 1962, 13(3), 99-104.—The regular science test (Grades 4 through 6) and an experimental form of it, with situational references "largely deleted," were administered to 344 5th- and 6th-grade children. The results obtained under the 2 conditions were not statistically significantly different. Implications of the findings, as for instance in regard to increasing the number of test items, are discussed.—*T. E. Newland.*

3885. Jex, Frank B., & Merrill, Reed M. (U. Utah) *A study in persistence: Withdrawal and graduation rates at the University of Utah.* *Personnel Guid. J.*, 1962, 40(9), 762-768.—Since World War II, one pattern of higher education has shown a shift from "dropout" to "interruption" of academic goals. By extrapolation in a longitudinal study, 60% of classes in the near future are expected to achieve graduation from the university. The findings have implications for programs of student personnel, evening programs, student attitudinal changes towards their studies, and the pattern of business support of education as a part of career development.—*S. Kavruck.*

3886. McDonnell, M. W. (Camrose, Canada) *The prediction of academic achievement of superior grade three pupils.* *Alberta J. educ. Res.*, 1962, 8(2), 111-118.—A sample of 178 pupils (from a Grade 3 population of 3700 with an IQ of 120 or more on the CTMM) were given 3 intelligence tests (Detroit 1st grade, CTMM—Short Form, and Raven's Progressive Matrices) and the Primary Battery of the California Achievement tests. Except for the Detroit, all tests were given about the same time in Grade 3, thus yielding mostly data on concurrent validity. The Detroit and the Matrices were the best predictors and had the only significant intercorrelation among intelligence tests. The Progressive Matrices predicted achievement (even language) better than the CTMM.—*G. M. Della-Piana.*

3887. Rosenberg, Leon A., McHenry, Thomas B., & Rosenberg, Anna Maria. (Medical Field Service School, Fort Sam Houston) *Sociometric ratings as predictors of academic performance.* *J. appl. Psychol.*, 1962, 46(4), 265-268.—An experiment to determine the degree of accuracy with which sociometric ratings can be used to predict academic performance. A 14-item sociometric questionnaire was administered to 86 students before any academic grades were available. 2 rating measures, one emphasizing future job performance and the other dealing with personal adjustment, were found to be significantly related to academic performance ($r = .40$, $p < .01$; $r = .35$, $p < .01$). The relationship, however, appeared to be restricted to the upper range of academic performance; the measures being unable to predict failing or below average performance.—*Journal abstract.*

3888. Spielberger, Charles D. (Duke U.) *The effects of manifest anxiety on the academic achievement of college students.* *Ment. Hyg., N. Y.*, 1962, 46(3), 420-426.—Students of low intellectual ability (as measured by the ACE) earned poor grades in college irrespective of their Taylor Manifest Anxiety score, while anxious students in the middle range of ability obtained lower grades and a higher percentage of academic failures than non-anxious students of comparable ability. For the very superior students (with ACE scores over 150), however, anxiety appeared to facilitate academic performance.—*M. H. Lewin.*

EDUCATIONAL PERSONNEL

3889. Hargiss, Genevieve. (U. Kansas) *The acquisition of sight singing ability in piano classes for students preparing to be elementary teachers.* *J. Res. music Educ.*, 1962, 10, 69-75.—32 college students in a music methods course were taught

"music fundamentals, playing the piano by note, playing by ear, and the improvising of simple chorded accompaniments for children's songs and rhythmic activities." With control Ss, "singing was not particularly emphasized," but with 32 experimental Ss "the students sang everything they played." Both groups made significant gains in recognition of notation, musicality, and piano performance, but the experimental Ss made significantly better posttest scores in sight singing.—D. S. Higbee.

3890. List, Davida Norma. (New York U.) The attitudes of women school teachers and parents toward the teacher role. *Dissert. Abstr.*, 1962, 22(12), 4427.—Abstract.

3891. Perron, Roger. La perception de l'élève par le maître: Réflexions et suggestions à propos d'un questionnaire. [The teacher's perception of the student: Thoughts and suggestions with respect to a questionnaire.] *Psychol. Franc.*, 1962, 7(1), 26-41.—Based on a 10-item questionnaire study involving 20 teachers and 293 children, it is suggested that some of the more important problems to consider include the way in which the teacher perceives the student, the profile of the average student as perceived by the average teacher, the good student contrasted with the poor student, and the sex of the student compared with the sex of the teacher.—C. J. Adkins.

INDUSTRIAL & MILITARY PSYCHOLOGY

3892. International Ergonomics Association. Proceedings of First International Congress on Ergonomics. *Ergonomics*, 1961, 5(1), 1-328.—51 papers are presented in 4 general sections on: (a) speed of work and its relation to physiological stress and systems of payment, including reports on fatigue, effects of temperature and other environmental conditions, and "cost price of food calories; (b) adjustment of work and environment for older people; (c) evaluation of work and working environment in ergonomic terms, including such matters as job analysis, manpower management, computer design, and office work; and (d) a miscellaneous group of papers dealing with such topics as effects of vibration, walking on different surfaces, earnings in various age classes, target tracking, and social factors.—B. T. Jensen.

VOCATIONAL GUIDANCE & APTITUDES

3893. Arnold, Wilhelm. (U. Würzburg, Germany) Begabungswandel und Erziehungsfragen. [Aptitude change and educational problems.] Munich, Germany: Juventa, 1960. 152 p.—With the aim of developing statistically adequate norms and obtaining additional data on the structure of tests used by the psychology section of the Vocational Counseling Service of the German Federal Employment Service, empirical studies were initiated with a stratified sample of 5108 boys and girls 14-15 years old. The monograph describes the sample, tests used, and factors derived. Findings are discussed in terms of sex differences, rural-urban dimensions, and other socioeconomic variables; personality development; and educational implications relative to aptitude and achievement.—H. P. David.

3894. Brown, Fred G. (U. Missouri) A note on expectancy ratios, base rates, and the SVIB.

J. counsel. Psychol., 1961, 8(4), 368-369.—The relation of the base rate problem to making predictions from Strong's follow-up study.—E. R. Oetting.

3895. David, C. (U. Portland) Interpersonal measurement of two occupational interest groups. *J. proj. Tech.*, 1962, 26(3), 276-282.—The hypothesis that different occupational groups will cluster at behavioral levels which may differentiate them is substantiated in part. Different source data revealed variability among group members despite common occupational interests.—A. Greenwald.

3896. Gonyea, George G. (U. Texas) Dimensions of job perceptions. *J. counsel. Psychol.*, 1961, 8(4), 305-312.—Male college freshmen evaluate the similarity of 30 selected occupational titles. 12 oblique factors and 5 2nd order factors do not resemble the conventional interest groupings.—E. R. Oetting.

3897. Miller, K. M. Une méthode stéréotype de classement pour l'évaluation des intérêts professionnels. [A stereotype method of classifying vocational interests.] *Travail hum.*, 1962, 25(1-2), 151-158.—The Rothwell-Miller Interest Blank, developed in Australia, provides a means of assessing vocational interests by ranking job titles. These are representative of 12 occupational stereotype categories. The test may be used in group, as well as individual fashion, and it is used primarily as a basis for the guidance interview. Scores are converted into percentiles, thereby permitting use for guidance or placement. Reliability and validity appear to be promising.—R. W. Husband.

3898. Stephenson, Richard R. (U. Iowa) A new pattern analysis technique for the SVIB. *J. counsel. Psychol.*, 1961, 8(4), 355-362.—Difficulties in replication of studies using Darley and Hagenah's technique are discussed and a simple technique for objective pattern classification is presented.—E. R. Oetting.

3899. Stephenson, Richard R. (U. Iowa) Faking "chance" on the SVIB. *J. appl. Psychol.*, 1962, 46(4), 252-256.—Are scores that fall within the so-called "chance" areas of certain occupational scales of the Strong Vocational Interest Blank for Men (SVIB) "easily obtainable by chance"? To answer this question, Ss were selected whose scores, under standard testing conditions, were either higher than chance, lower than chance, or in the chance area itself. These Ss were then instructed to "fake" directionally (in the direction of the chance area) and to "fake chance." The results indicated that Ss who can fake directionally cannot fake chance, even when the chance range is in the same direction as the one they have faked. It was concluded that rather than ignore scores within the chance area, it may be better to ignore the chance areas themselves.—*Journal abstract.*

3900. Strong, Edward K. (Stanford U.) Good and poor interest items. *J. appl. Psychol.*, 1962, 46(4), 269-275.—Interest items may be evaluated in terms of unfamiliarity, ambiguity, differentiation between men-in-general and criterion group, number of scales on which the items are weighted, reliability, and extent to which they contribute to total score. These characteristics are utilized in the elimination of inferior items and addition of new items in revising the Vocational Interest Blank for Men. Like, indifference, dislike (L-I-D) items are contrasted with

preference between items in Parts VI and VII and ratings of present abilities in Part VIII. In general, good items are located midway between the interests of criterion groups and are liked distinctly more than the average by some criterion groups and distinctly less by other criterion groups.—*Journal abstract.*

3901. Stroup, Herbert. (Brooklyn Coll.) **Kafka as a vocational counselor.** *J. counsel. Psychol.*, 1961, 8(4), 291-295.—Kafka's mystical view of the role of accidental incidents in vocational development.—*E. R. Oetting.*

3902. Wax, J. (VA Hosp., Palo Alto, Calif.) **Teaching supervisors the techniques of counseling employees.** *Ment. Hosp.*, 1962, 13(4), 214-215.—15 principles such as "Take it seriously," "Be prepared," etc. are listed as content of a 6 hour course; "... instructors are social workers who draw heavily on social work knowledge and skill."—*L. Gurel.*

OCCUPATIONAL & CAREER INFORMATION

3903. Mare, G. D., & Sargeant, R. (Medical Research Council) **Two methods of studying changes in absence with age.** *Occup. Psychol.*, 1961, 35(4), 245-252.—Personnel records were analyzed cross-sectionally and longitudinally for absence history of 300 men over the last decade. The objective was to check the assumption of the cross-sectional method that age differences contribute to the absenteeism. An aging effect was found for certified sickness. High absence frequency, however, was not age-related.—*M. York.*

3904. Singer, Dorothy Milgram. (Boston U.) **A study of lump sum settlements and rehabilitation under the Massachusetts Workmen's Compensation Act.** *Dissert. Abstr.*, 1961, 22(4), 1286.—*Abstract.*

3905. Wolfe, H. E. (Longview State Hosp., O.) **The attitude of small industrial employers toward hiring of former state mental hospital patients.** *J. clin. Psychol.*, 1961, 17(1), 90-92.—In this follow-up study of an earlier paper by Bieliauskas and Wolfe (see 36: 21R56B), the employers of 934 manufacturing firms employing 1-99 persons were interviewed concerning their attitudes towards the hiring of former state mental hospital patients. The results suggested significantly favorable attitudes on the part of employers.—*V. J. Bieliauskas.*

SELECTION, PLACEMENT, APPRAISAL

3906. Bass, B. M. (U. California) **Further evidence on the dynamic character of criteria.** *Personnel Psychol.*, 1962, 15(2), 93-97.—Performance criteria were collected semi-annually over 48 months for 99 salesmen of a national food distributor. Alternate forms of a performance check list provided the criterion ratings. Predictors included a test of intelligence, Bruce's Sales Knowledge Test, and 3 peer ratings yielding measures of popularity, esteem, and ability. Initial validities decline considerably over 4 years when based on similar criteria of performance on the same workers. The decrease in agreement between any 2 merit ratings over time follows a simple negative monotonic function. The ultimate invalidation of the sociometric and test estimates of abilities suggests that sales performance is less contingent on ability than on esteem and popularity.—*A. S. Thompson.*

3907. Campbell, J. T. (Western Reserve U.) **Assessments of higher-level personnel: I. Background and scope of the research.** *Personnel Psychol.*, 1962, 15(2), 57-62.—This introduction to a series of 7 articles on assessment procedures used with high-level industrial personnel describes the methods and instruments of appraisal and the criterion data obtained.—*A. S. Thompson.*

3908. Campbell, J. T., Otis, J. L., Liske, R. E., & Prien, E. P. (Western Reserve U.) **Assessments of higher-level personnel: II. Validity of the over-all assessment process.** *Personnel Psychol.*, 1962, 15(2), 63-74.—Using sales and nonsales groups, the validity of predictions made by the psychologist who prepared the final assessment report was studied. The results indicated that (a) psychologists are able to make predictions of successful and unsuccessful job performance using a combination of interview information, objective tests, and clinical reports of projective test data; (b) actuarial prediction from specific test scores were not effective in the situation studied; (c) industrial supervisors were more lenient than psychologists in their assessment of individuals; and (d) prediction of a criterion rating worded in action terms was more effective than one worded in behavioral terms.—*A. S. Thompson.*

3909. Greer, George D., Jr., Smith, Wayne D., & Hatfield, Jimmy L. **Improving flight proficiency evaluation in Army helicopter pilot training.** *HumRRO tech. Rep.*, 1962, No. 77. ix, 56 p.—Studies stressed the unsatisfactory relationship between traditional, unstandardized flight training evaluation and training grades. Content analysis of the training program led to Intermediate and Advanced Pilot Performance Description Records, based on standard rides. The method is recommended because of higher reliability and as a means of diagnosing students' specific deficiencies.—*R. Tyson.*

3910. Hughes, J. L., & Dodd, W. E. (IBM Corp.) **Validity versus stereotype: Predicting sales performance by ipsative scoring of a personality test.** *Personnel Psychol.*, 1961, 14(2), 343-355.—The validity of the usual normative scoring method for the Gordon Personal Profile (GPP) was compared to the validity of an ipsative scoring method devised for this test. The criteria used were different aspects of sales performance over a 3-year period for a sample of 130 data processing machine salesmen. One of the ipsative traits, Sociability, correlated negatively (-0.34) with a continuous sales production criterion ($n=90$) and showed a significant difference in proportions between a top producing and promoted group ($n=44$) and a low producing and separated group ($n=42$). The normative GPP scores were not related to the criteria.—*A. S. Thompson.*

3911. Judy, C. J. (Lackland AFB) **A validation of qualification requirements for work in a USAF specialty.** *Occup. Psychol.*, 1961, 35(1-2), 71-75.—The utility of 31 predictors, pitted against a 230-item proficiency test, was assessed with respect to 415 B-52 mechanics. An iterative technique for multiple correlation indicated that 1 of 3 groups of variables added to the composite prediction. This group was Mechanical Aptitude Index, equipment maintenance training, and AF maintenance experience.—*M. York.*

3912. Kennedy, Robert S., & Graybiel, Ashton. **The validity of tests of canal sickness in predicting**

susceptibility to airsickness and seasickness. *USN Sch. Aviat. Med. NASA jt. res. Rep.*, 1962, Proj. MR005.13-6001, Subtask 1, Rep. No. 71; NASA Order No. R-47. ii, 8 p.—21 Ss were exposed to a laboratory method for producing motion sickness (canal sickness) aboard the Slow Rotation Room. In an effort to determine the predictive ability of this method, the Ss were also subjected to acrobatics in an aircraft and to heavy or moderately calm sea states. In addition nystagmic response to caloric stimulation was observed. It was found that a positive relationship existed between performance on the Slow Rotation Room, caloric irrigation, and airsickness. This relationship also existed during heavy seas and to a lesser extent on moderate seas. In general, it may be concluded that individual performance on the standard procedure used to produce canal sickness aboard the Slow Rotation Room is predictive of susceptibility to air and seasickness.—*USN SAM & NASA*.

3913. Morrison, Robert F., Owens, William A., Glennon, J. R., & Albright, Lewis E. (Purdue U.) Factored life history antecedents of industrial research performance. *J. appl. Psychol.*, 1962, 46 (4), 281-284.—The purpose of this study was to better comprehend underlying, discriminating personal characteristics represented in a population of 418 petroleum research scientists. 5 factors were extracted from a matrix of 75 discriminating life history items and 3 criteria of research performance. The factors were tentatively identified as Favorable Self-Perception, Inquisitive, Professional Orientation, Utilitarian Drive, Tolerance for Ambiguity, and General Adjustment. Profiles of the 3 criterion groups across the 5 factors revealed great similarity between the profiles based on ratings, but substantial differences between these and the patent disclosures profile. The observed differences were interpreted in terms of their implications for distinctive personnel policies.—*Journal abstract*.

3914. Paquin, J. A. Staff appraisal: A case study. *Personnel Pract. Bull.*, 1962, 18(2), 33-42.—This is a description without evaluation of a staff appraisal system in a factory employing 1050 people. "... field reviews and self-appraisals, combined with counselling, seem to have proved highly successful." 5 appendices present forms and directions.—*J. L. Walker*.

3915. Phelan, J. G. (Los Angeles State Coll.) Projective techniques in the selection of management personnel. *J. proj. Tech.*, 1962, 26(1), 102-104.—Combined Rorschach and TAT data proved to be the best predictor of promotion to administrative positions and were reported as the tests of preference by evaluating psychologists.—*A. F. Greenwald*.

3916. Philips, M. H. Merit rating for skilled and semi-skilled workers. *Personnel Mgmt.*, 1962, 44(Whole No. 360), 120-128.—The system is based upon ratings for craftsmanship, output, and experience. Discussed are its rationale, method of introduction, and method of operation. Sample rating sheets are appended.—*A. R. Howard*.

3917. Plag, J. A. (USN Medical Neuropsychiatric Research Unit, San Diego, Calif.) Some considerations of the value of the psychiatric screening interview. *J. clin. Psychol.*, 1961, 17(1), 3-8.—A report by some investigators published earlier indi-

cated that the psychiatric interview was a valid technique for military selection. This study attempted to compare the predicted validity of the clinical examination and the "actuarial techniques." 1813 recruits reporting aboard the station were interviewed and also examined with a formal psychological test. The predictions made by the interviewer, and by the psychologist administering the tests, were filed separately for later evaluation. 67 or 3.7% of the recruits received for training during this period were discharged from service as psychiatrically unsuitable. The statistical evaluation of both the clinical and the testing technique did not show significant differences between the 2 screening methods. A suggestion was made that perhaps both techniques should be used in order to improve the predictions concerning the adjustment of Navy personnel.—*V. J. Bieliasukas*.

3918. Roche, William James, Jr. (Southern Illinois U.) The Cronbach and Gleser utility function in fixed-treatment employee selection. *Dissert. Abstr.*, 1962, 22(12), 4413.—*Abstract*.

3919. Uhrbrock, R. S. (Ohio U.) 2000 Scaled items. *Personnel Psychol.*, 1961, 14(2), 375-420.—A set of 2000 single sentence statements of the type used in the preparation of employee rating scales was prepared and randomly sorted into 10 piles of 200 cards each. Volunteer male judges (N=160) then sorted cards in the standard manner into 11 piles in respect to "favorable-unfavorable" estimates. Each of the 10 sets of cards was sorted by 16 different judges; each judge sorted 200 cards. Items, mean scale values, and standard deviations are reported.—*A. S. Thompson*.

TRAINING

3920. Erdbrink, Wayne L. Relation of small visual acuity defects to the ability to learn in flight training and perform in operational flying. *USN Sch. Aviat. Med. res. Rep.*, 1961, Proj. MR005.13-3001, Subtask 3, Rep. No. 1. 12 p.—The present study was instituted in 1953 in order to evaluate the relationship of small visual acuity errors and the ability to complete flight training and to perform in operational flying. Since 1953, 124 individuals have been placed in the study. Excluding the 19 individuals placed in the study in 1961, the total studied through 1960 would be 105. In these 8 years, 66 of the individuals have been designated as naval aviators, 44 of whom are actively flying today, 40 in Service Group 1. Of the 44 actively flying aviators, only 20 had a progression of their myopia by a mean spherical equivalent of -0.37 diopter. These aviators were designated only because of the existence of this study.—*USN SAM*.

3921. Goldstein, Donald A., & Newton, John M. (Electric Boat Division, General Dynamics Corp.) Transfer of training as a function of task difficulty in a complex control situation. *J. exp. Psychol.*, 1962, 63(4), 370-375.—"Four groups of 20 Ss were trained on a complex tracking task differing in the degree of control lag. Following training, 5 Ss from within each group were transferred to the other systems, with one subgroup transferred to the same system. It was found that, on the basis of mean time on target scores per five-trial block, the more difficult tasks were those with the longer control lags. It was also found that training on the most difficult task, the system with the longest control lag, pro-

duced generally better transfer effects than did training on any other system.—J. Arbit.

3922. Gruenfeld, L. W. (Wabash Coll.) **Selection of executives for a training program.** *Personnel Psychol.*, 1961, 14(2), 421-431.—Based on a study of 51 executives attending a summer program, the aptitudes required for success in a liberal arts program for executives were found to be primarily of an intellectual nature; word meaning, reading, and mathematical ability made up the content of those predictors which correlated significantly with faculty criterion ratings. In contrast, personality factors failed to discriminate between those individuals who were rated successful and "others." The Adaptability Test, a 15-minute intelligence test consisting of vocabulary and mathematical reasoning items, was recommended.—A. S. Thompson.

3923. Kahneman, D., & Ghiselli, E. E. (Hebrew U., Jerusalem) **Validity and nonlinear heteroscedastic models.** *Personnel Psychol.*, 1962, 15(2), 1-11.—Use of the Pearsonian coefficient in validation studies implies that linear homoscedastic relationships hold between test scores and criteria, that the accuracy of prediction of criteria from test scores is the same throughout the entire range of scores, and that both success and failure on a job are the result of the same factors. Examination of the relationships between test scores and criteria for 3 groups—executives, office workers, and autobus repairmen—indicated that descriptions of the predictive power of the tests and of the traits important in job success and failure as given by the Pearsonian validity coefficient were not as meaningful and useful as when using theta. Success and failure are often due to different trait patterns.—A. S. Thompson.

3924. Matyukhina, M. V., Patrina, K. T., & Shneider, D. M. (Volograd, USSR) **Nekotorýe puti vospitaniya tekhnicheskogo myshleniya u uchashchikhsya starshikh klassov.** [Some ways of training technical thinking in pupils of senior classes.] *Vop. Psikh.*, 1962, No. 1, 11-18.—Independent technical thinking appears to be lacking in pupils of several schools given physics problems to solve. Analysis of this deficiency, observations, and trial classes suggest that pupils should observe the technical principles involved in a process in a simple model, then in a working model, and after that on the actual job. Assignments should be made to the pupil for independent work which arouse his interest, involve him in practical activity, require him to read technical journals, etc.—H. Pick.

3925. Poland, Harold Vincent. (Fordham U.) **The relationship between self concept and supervisory and peer ratings of success in nurses' training.** *Dissert. Abstr.*, 1961, 22(4), 1260.—Abstract.

TASK & WORK ANALYSIS

3926. Chambers, E. G. **Industrial fatigue.** *Occup. Psychol.*, 1961, 35(1-2), 44-57.—A summary is provided of (hard-to-get) reports by the Industrial Fatigue (later Health) Research Board between 1919 and 1938. It serves as a good historical treatise on the subject. (88 ref.)—M. York.

3927. Evans, Wayne O. (USA Medical Research Lab., Ft. Knox, Ky.) **The effect of treadmill grade on performance decrement using a titration schedule.** *USA Med. Res. Lab. Rep.*, 1962, No. 535. ii,

10 p.—This investigation is a methodological study of the effect of an independent variable of work with prima facie validity on the performance decrement of Ss walking at a submaximal rate on a treadmill, the velocity of which is controlled by the S on a titration schedule. Indices of performance were derived from a best estimate of linear fit for the data. The slope constant, the ordinal intercept, the total walking time, and the "tracking behavior" were considered for correlation, individual variance, and variation with changes in the grade of the treadmill. Changes in the grade of the treadmill were shown to produce the expected changes in intercept and total walking time.—USA MRL.

3928. Logan, G. A., & Lockhart, Aileene. (U. Southern California) **Modified quadrant assembly for measuring isometric knee extensor strength at selected angles.** *Percept. mot. Skills*, 1962, 14(1), 35-37.—A description is presented of a Modified Quadrant Assembly, a device for the measurement of knee extensor strength at varying angles in the range of motion. The instrument, modified from a similar device reported by Brewerton of England, is described and illustrated. Instructions for its construction, suggestions for its use, and a discussion of anthropometric considerations are included.—W. H. Guertin.

3929. Zavalishima, D. N., & Pushkin, V. N. (Moscow, USSR) **Nekotorýe voprosy operativnogo planirovaniya v trude dezhurnogo po stantsii.** [Some problems of operations planning in the work of the railway station duty officer.] *Vop. Psikh.*, 1962, No. 1, 3-10.—Observations were made of the decision making involved in routing traffic through and around railroad stations. These suggested that the decision making involved the use of logical operations of conjunction, disjunction, and implication. Some duty officers seemed to depend only on the conjunctive operations, while others utilized all 3 logical operations in their planning and execution. The failure of more officers to use the latter approach is attributed to the type of training given them. It is suggested that more emphasis be placed on the operations of thinking and less on the technical details of the job.—H. Pick.

WORK ENVIRONMENT & PERFORMANCE

3930. Bartlett, Roscoe G., Jr. (USN School Aviation Medicine, Pensacola, Fla.) **A closed circuit, compressed oxygen source rebreather system for aircraft, featuring automatic economic nitrogen elimination.** *USN Sch. Aviat. Med. res. Rep.*, 1961, Proj. MR005.13-3100, Subtask 8, Rep. No. 9. ii, 9 p.—A rebreather oxygen system for aircraft has been developed which utilizes a new economic nitrogen elimination technique. The entire device can be seat mounted and will weigh less than 30 lb. with sufficient oxygen storage and CO₂ absorber for a 10-hour flight.—USN SAM.

3931. Bartlett, Roscoe G., Jr., & Hertz, Rita A. **Automatic economic nitrogen elimination in oxygen rebreathing systems.** *USN Sch. Aviat. Med. res. Rep.*, 1962, Proj. MR005.13-3100, Subtask 8, Rep. No. 10. 5 p.—Economic, automatic nitrogen elimination from the body is a necessary adjunct to an acceptable oxygen rebreather system. A new approach to nitrogen elimination has been developed. Economic, periodic nitrogen purging is accomplished

with normal breathing and without any manual manipulation or attention by the aviator during the elimination schedule. The purging schedule makes possible the design of a completely automatic self-purging oxygen rebreathing system.—*USN SAM*.

3932. Clarke, Ernest R., & Jones, Clarke E. (Quartermaster Research & Engineering Command, Natick, Mass.) **Manual performance during cold exposure as a function of practice level and the thermal conditions of training.** *J. appl. Psychol.*, 1962, 46(4), 276-280.—3 groups of 10 Ss each were given varied thermal experience (warm or cold hands) during 3 weeks of training on a standard manual task. The results were as follows: (a) 1 day of cold-hand training significantly reduces the size of a manual decrement usually associated with cold exposure, but continued cold experience did not; (b) skill level on the task per se did not interact with the cold induced performance decrements; and (c) the thermal conditions associated with performance on the task appeared to become part of the stimulus complex eliciting correct manual responses when these thermal conditions were maintained for a large number of trials, i.e., the Ss learned, not merely to perform on the task, but to perform with warm, or cold, hands specifically.—*Journal abstract*.

3933. Guedry, F. E., Graybiel, A., & Collins, W. E. (USN School Aviation Medicine, Pensacola, Fla.) **Reduction of nystagmus and disorientation in human subjects.** *USN Sch. Aviat. Med. NASA Jt. Rep.*, 1962, Proj. MR005.13-6001, Subtask 1, Rep. No. 69; NASA Order No. R-47. ii, 7 p.—Nystagmus, disorientation, and nausea were reduced in Ss living and moving about for several days in a slowly rotating room. The reduced nystagmus was not reinstated by assigning "arousal-tasks" which are ordinarily effective in this respect. After rotation was stopped residual effects were noted for several hours. These included compensatory nystagmus, compensatory illusory reactions, and some motion sickness. Other Ss were exposed to similar circumstances for shorter periods wherein only restricted head movements in a particular plane were permitted. Nystagmus, illusory phenomena, and nausea were reduced by this procedure. However, the habituation did not transfer to forms of vestibular stimulation including head movements in an "unpracticed quadrant" which produce reactions similar in direction and plane to those repeatedly experienced during the habituation period. Residual effects from this shorter more restricted exposure were slight.—*USN SAM & NASA*.

3934. Kopra, Lennart L., & Strickland, Lee E. **Noise exposure of B-52 and KC-135 aircraft maintenance personnel.** *USAF SAM Rep.*, 1961, No. 61-117. 17 p.—The authors, for a period of 5 working days, followed each of 16 men as they did their jobs. Ss included 4 test-cell crew members, 4 engine-conditioning mechanics, 4 B-52 bomber ground-crew members, and 4 KC-135 tanker ground-crew members. Measurements were made of the duration of time during which each S was exposed to sound levels ranging from 90-140+ db. on each of 4 working days, and an analysis was made of the noise characteristics of turbojet engines and ground-power equipment to which each S was exposed. The authors conclude that Ss are not exposed to potentially damaging sound levels long enough to experience

irreversible hearing loss provided that available ear protection devices are worn consistently by these men.—*M. C. Payne, Jr.*

3935. Snyder, F. W. (Boeing Co., Wichita, Kan.) **Preliminary report of a research program on the effects of low-frequency vibration on human performance.** *Percept. mot. Skills*, 1962, 14(1), 62.—A description is given of the 30-month program of laboratory research to evaluate the effects of low frequency, high amplitude sinusoidal vibration on perceptual and motor task performance. Apparatus, environmental controls, and tasks are described briefly, as are the goals of the research.—*W. H. Guertin*.

3936. Starke, R. D., & Bartlett, R. G., Jr. **Oxygen consumption in normal subjects performing the modified Harvard Step Test.** *USN Sch. Aviat. Med. res. Rep.*, 1962, Proj. MR005.13-7004, Subtask 5, Rep. No. 14. 7 p.—By use of a recently described new, simple technique, accurate measurements of oxygen consumption during 7 graded stress loads on the Harvard Step Test are presented. Comparisons to the conventional Master's test for coronary reserve are presented.—*USN SAM*.

3937. Tadin, I. (Željezara, Sisak) **Analiza distribucije tjednih odmora u sklopu opće problematike apsentizma.** [Analysis of the distribution of weekly rest.] *Arh. Hig. rada*, 1960, 11, 9-25.—In a big metal factory it was found that the weekly rests were not given periodically, and that the distribution of periodicity was rather large. The average weekly rest took place every 9.02 days. This distribution of rests increased the number of accidents and was likely to lower the quality of production, and produce financial losses. Some measures are recommended for improving the existing state.—*B. Petz*.

3938. Tarriere, C., & Wisner, A. **Effets des bruits significatifs et non significatifs au cours d'une épreuve de vigilance.** [Effects of significant and nonsignificant noises during a test of vigilance.] *Travail hum.*, 1962, 25(1-2), 1-28.—4 different noise environments were supplied during a monotonous and long-continued (90 min.) test of visual detection: silence (35 db.), car noise, speech, and music program, all at 90 db. In silence, the loss of attention, evidenced by omissions, occurred as early as the 2nd half hour. Motor noise caused loss as late as the 3rd half hour. Classical music showed the same trends as silence. Listening to stories produced varying results, with no consistent trends. There were wide individual differences, but each S remained consistent within himself upon further testing.—*R. W. Husband*.

MOTIVATION, ATTITUDES, TRAITS

3939. Aldis, Owen. (Harvard U.) **Of pigeons and men.** *Harv. bus. Rev.*, 1961, 39(4), 59-63.—Businessmen may not realize to what extent conventional wage and salary systems rely on negative reinforcement. Methods which rely more on immediacy of reward, piece-rate pay, and greater randomization may lead both to higher productivity and increased job satisfaction.—*C. F. X. Youngberg*.

3940. Cohen, A. M., & Meredith, W. R. (Case Inst.) **Management and employee needs.** *Advanc. Mgmt.-Off.-Exec.*, 1962, 1(8), 28-32.—Management should recognize the hierarchy of needs, and their cyclical nature. Once this cycle is recognized a pro-

gram of short-term and continuous expenditure of benefits can be established without prematurely depleting resources. Timing is of major importance.—*E. Q. Miller.*

3941. **Gotterer, M. H.** (U. California, Berkeley) **Union reactions to unilateral changes in work measurement procedures.** *Personnel Psychol.*, 1961, 14(2), 433-450.—This study, based on case studies of 13 companies, examines labor-management struggle brought on by management efforts to unilaterally introduce a system of synthetic times. Interviews were held with factory managers, foremen, engineers, and union officers of companies varying in size from 50 to 60,000 employees. The union's resistance to synthetic times can be divided into 3 stages: (a) wait and see; (b) attempt to maintain traditional bargaining privileges; (c) attack company's right, under existing contract, to use system. The experiences indicate that the unilateral introduction of a new procedure for directly, or indirectly, determining production standards or piece work rates will not prove satisfactory.—*A. S. Thompson.*

3942. **Handyside, J. D.** (Standard Tel. & Cables, Ltd.) **Satisfactions and aspirations.** *Occup. Psychol.*, 1961, 35(4), 213-244.—A progress report on questionnaire-technique experimentation by the National Institute of Industrial Psychology. Empirical data on the nonresponse problem and comparison of interview and questionnaire answers are discussed along with the derived factors underlying job satisfaction and aspiration. Appendixed scale items and factor analytic procedures.—*M. York.*

3943. **Jardillier, P.** **Étude de 14 facteurs influant sur l'absentéisme industriel.** [Study of 14 factors affecting industrial absenteeism.] *Travail hum.*, 1962, 25(1-2), 107-116.—Absenteeism was studied for 878 men and 306 women in a factory described as being far from any large city. Work was partly repetitive, partly skilled, and partly done by unit production. Illness and accident absences were not considered; this study was directed primarily toward personal reasons. Men averaged 21 days, women 35 a year. The 4 most common causes were age, work done outside, distance from home, and with married women total family income.—*R. W. Husband.*

3944. **Johnson, LeRoy.** (U. Wisconsin) **The relationship of work experience to orientation toward retirement.** *Dissert. Abstr.*, 1961, 22(6), 2090.—*Abstract.*

3945. **Nederlands Instituut voor Praeventieve Geneeskunde.** **The absenteeism problem.** *Mens Onderneming*, 1962, 16(5), 265-347.—A study of the reasons and practical solutions of this problem has led to the growing opinion that "illness" and absenteeism are not identical and are being influenced by social and psychological factors. It should not be fought by incidental measures but by creating a sound personnel management; the 5-day week had a favorable effect on the duration of absence. Sociologists should not study the problem as an independent phenomenon but in relation to other possible forms of withdrawal from work. Individual authors are W. Ekker, J. de Groot, G. J. Fortuin, and H. Philipsen. (English summaries)—*J. A. Lucker.*

3946. **Petz, B., & Vidaček, S.** (Inst. za Medicinska Istraživanja, Zagreb) **Analiza izostanaka s posla u jednom zagrebačkom poduzeću.** [Analysis of ab-

senteeism in a Zagreb factory.] *Arh. Hig. rada*, 1960, 11, 289-297.—The analysis of absences in a Zagreb factory has shown that: (a) the average number of days lost by women is considerably higher than by men; (b) with older workers the average number of both absences and days lost is lower than with younger workers; and (c) with respect to as regards family responsibility, the highest average number of absences was observed in single men, and women with children.—*B. Petz.*

3947. **Salkind, Isadore.** (May T. Morrison Cent. Rehabilitation, San Francisco, Calif.) **Changing employers attitudes toward the psychologically handicapped.** *J. Rehabil.*, 1962, 28(3), 26.—The use of a staff of trained public relations specialists well oriented in the field of vocational rehabilitation as the basis for a frontal attack on major employers throughout the country as the means of altering unfavorable attitudes to employment of the emotionally disturbed, the mentally retarded, and the ex-mental hospital patient.—*M. A. Seidenfeld.*

3948. **Sinha, Durganand, & Sarma, Keshab C.** (Allahabad U.) **Union attitude and job satisfaction in Indian workers.** *J. appl. Psychol.*, 1962, 46(4), 247-251.—Relationship between attitude towards union and job satisfaction was studied on a sample of 100 workers in a light engineering factory in India by use of specially constructed interview schedules. There was a significant negative association between the 2 measures ($r = -.47$). Of the personal factors—age, marital status, and length of union membership—were significantly related to job satisfaction ($p < .01$). None of these were, however, found to influence union attitude significantly.—*Journal abstract.*

3949. **Super, Donald E.** (Columbia U.) **The structure of work values in relation to status, achievement, interests, and adjustment.** *J. appl. Psychol.*, 1962, 46(4), 231-239.—The Work Values Inventory (WVI), a 210-item, paired-comparison instrument designed to measure 15 different work values, was administered together with a number of measures of intelligence, interest, adjustment, and achievement to 9th grade boys of the Career Pattern Study ($N = 88$). The results show no tendency for so-called intrinsic values to be associated, nor for extrinsic values to be more intercorrelated than are values of different types. A centroid factor analysis of the 40×40 matrix yielded 10 factors, of which 7 were clearly identifiable. 4 were clearly value factors, 2 could be classified as either values or interests, 3 were personality and adjustment factors, and 1 was an achievement factor. The WVI seemed particularly useful in its measurement of 4 value factors not revealed by interest or adjustment measures.—*Journal abstract.*

MANAGEMENT & ORGANIZATION

3950. **Andrews, Kenneth R.** (Harvard Business School) **Reaction to university development programs.** *Harv. Bus. Rev.*, 1961, 39(3), 116-134.—Using both the questionnaire and interview responses of many of the participants, campus programs for practicing executives can be said to be successful.—*C. F. X. Youngberg.*

3951. **Benge, Eugene J.** (Haverford, Pa.) **An alternative to compulsory arbitration.** *Advanc. Mgmt. Off. Exec.*, 1962, 1(8), 14-15.—The alterna-

tive to compulsory arbitration is a national fair wage plan based on job evaluation whereby each job would receive a fair basic wage relative to all other jobs in the United States.—*E. Q. Miller.*

3952. Donovan, Thomas R. (U. Detroit) Socio-economic and educational factors influencing the achievement level of individuals in large-scale organizations. *Sociol. soc. Res.*, 46(4), 416-425.—Executives and lower managers in 4 large multi-plant corporations were studied. For these groups, the differences in their socioeconomic and educational backgrounds are described. Related findings in the literature are examined with reference to career patterns and theories of career causation. The results showed substantial differences in the backgrounds of the 2 groups studied.—*Journal abstract.*

3953. Fleishman, E. A., & Harris, E. F. (Yale U.) Patterns of leadership behavior related to employee grievances and turnover. *Personnel Psychol.*, 1962, 15(2), 43-56.—This study focused on 2 leadership patterns, Consideration and Structure, and on 2 questions: (a) the form of the relationship between leader behavior and indices of group behavior, and (b) the interaction effects of different combinations of Consideration and Structure. Relationships between foreman behavior and 2 indices of group behavior, labor grievances, and employee turnover, were investigated. In general, low Consideration and high Structure go with high grievances and turnover but there are critical levels beyond which increased Consideration or decreased Structure have no further effect. The relationship is curvilinear and hyperbolic. The thresholds differ for grievances and turnover.—*A. S. Thompson.*

3954. Goode, Cecil E. (McLean, Va.) Leadership: On course or aground? *Advanc. Mgmt.-Off. Exec.*, 1962, 1(8), 7-9.—Leadership training has limited success. The main thing the organization can do is not in the area of education and training at all. The principle actions the management can take are: do a good job of selecting prospects for development, provide an encouraging and facilitating climate, recognize achievement and personal efforts to improve.—*E. Q. Miller.*

3955. Indik, B. P., Georgopoulos, B. S., & Seashore, S. E. (U. Michigan) Superior-subordinate relationships and performance. *Personnel Psychol.*, 1961, 14(2), 357-374.—This study is concerned with the proposition, and 4 hypotheses derived from it, that the nature of superior-subordinate relationships in an organization, as perceived or evaluated by subordinates, effects the job performance of subordinates, whether the latter are considered as a group or as individuals. The results of this study of 975 non-supervisory employees in a nation-wide transportation company suggest that a high level of performance tends to be positively associated with openness of communication, satisfaction with supervisor's supportive behavior, mutual understanding, and local influence and autonomy on work-related matters. Issues of research strategy and analysis are discussed.—*A. S. Thompson.*

3956. Kornhauser, A. (Wayne State U.) Dr. Stagner's comments on the labor-management symposium: Some needed corrections. *Personnel Psychol.*, 1962, 15(2), 89-91.—The author objects to certain statements in Stagner's comments on his presentation in a symposium on labor-management and

refers to relevant sections of his original paper. He stresses the theme that psychologists dealing with labor-management issues should work within a wider and more adequate social frame of reference than has been usual and guard against unexamined value assumptions which frequently cloak an uncritical acceptance of management views. In a brief reply, Stagner responds that their points of agreement are more important than their disagreements.—*A. S. Thompson.*

3957. Mason, P. L. Executive selection. *Personnel Pract. Bull.*, 1962, 18(2), 43-52.—This is an overview of methods used for the selection of executives. The trend has been to improve the interview as a technique. (28 ref.)—*J. L. Walker.*

3958. Nangle, John Edward. (Michigan State U.) The effectiveness of communications in preparation for change in an insurance company. *Disser. Abstr.*, 1961, 22(6), 2064.—*Abstract.*

3959. Smith, Bernard. Handbooks for new employees. *Personnel Mgmt.*, 1962, 44(Whole No. 360), 101-107.—Purpose, content, design, form, and distribution are the larger areas discussed. Company handbooks should neither be recruitment booklets nor rule books.—*A. R. Howard.*

ENGINEERING PSYCHOLOGY

3960. Abbey, D. S. (U. Toronto) Partial reversal of control-display relations, body position, and performance on a complex perceptual-motor task. *Percept. mot. Skills*, 1962, 14(1), 34.—The effect of body rotation away from the display panel of the Toronto Complex Coordinator on reversal of control-display axes was investigated. The effects of reversing only the vertical dimension or the horizontal direction for Ss was compared with the more complex reversal of 2 and 3 dimensions simultaneously. Body position was found not to be related to these 2 simpler tasks but performance was significantly different on the 2 tasks.—*W. H. Guertin.*

3961. Bonjer, F. H. What is engineering psychology and what can it contribute to human problems in industry? *Mens Onderneming*, 1962, 16(3), 155-158.—The title of this article is the title of a lecture given by Alphonse Chapanis. He called engineering psychology a subdivision of "human engineering" which in Europe is called "ergonomics." According to Bonjer's summary of this lecture, ergonomics is founded on physiology, medicine, toxicology, anthropometry, sociology, and particularly engineering psychology. The latter is actively studied in America as a result of the tremendous development of industry and machinery. Good communication between man and machine should be stimulated.—*J. A. Lucker.*

3962. Brown, Charles R., & Connolly, Donald W. TED: A tape editor. *USAF ESD tech. docum. Rep.*, 1962, No. 62-218. iii, 9 p.—The principle and operation of a utility program for the PDP-1 computer are described. The program is an aid in the editing or modification of alphanumeric text in that the operator may communicate with the computer in the very alphanumerics of the text itself. It is a computer time-saver in that the modifications and the control instructions for their accomplishments may be prepared at an inexpensive, off-line machine.—*USAF ESD.*

3963. Crawford, B. M., & Kama, W. N. Remote handling of mass. *USAF ASD tech. Rep.*, 1961, No. 61-627. iii, 25 p.—Man's ability to make differential and absolute judgments of remotely handled masses was investigated under simulated weightlessness conditions. Ss made judgments of mass after moving stimulus objects to and fro on an air-bearing table. An Argonne Model 8 Master-Slave Manipulator was used for remote handling. An analysis of the results revealed: (a) remote handling under weightlessness conditions produces increments in just-noticeable differences which are roughly proportional to the mass of the remote manipulator components involved in handling the stimulus objects, (b) differential sensitivity for mass can be improved by increasing the accelerative force imposed upon the stimulus objects, (c) absolute judgments tend to be less under weightlessness conditions for either direct or remote handling, and (d) remote handling tends to produce greater and more variable estimates of both weight and mass.—*USAF ASD*.

3964. Fletcher, John L., & Loeb, Michel. Free field threshold shift and temporary threshold shift reduction as measures of efficiency of ear protective devices. *USA Med. Res. Lab. Rep.*, 1962, No. 539. ii, 12 p.—All devices tested were shown to significantly reduce temporary threshold shift (TTS) from impulse and continuous noise exposure. The insert devices were more effective than the helmet at low frequencies, but the devices were approximately equal in effectiveness at high frequencies. It is believed that the temporary threshold shift reduction (TTSR) technique adds important information regarding the operational efficiency of the ear protectors tested. Because of special problems associated with helmets, it seems particularly desirable to include the TTSR technique in their evaluation. The data suggest that susceptibility to TTS from continuous exposure is not significantly correlated with that from impulse exposure.—*USA MRL*.

3965. Kryter, K. D. Proposed methods for the calculation of the Articulation Index. *USAF ESD tech. docum. Rep.*, 1962, No. 62-35. (Bolt Beranek & Newman Rep. No. 906) 20 p.—The most valid and generally accepted procedure for measuring the ability of a communication system to transmit intelligible speech is to subject the system to a series of so-called speech intelligibility tests. However, speech intelligibility testing is an expensive and time consuming operation that requires laboratory test conditions. In an attempt to short-cut or make unnecessary this type of testing, a procedure has been developed for calculating from physical and acoustical measurements made on a communication system a measure that is indicative of the intelligibility scores that would be obtained for that system under actual test conditions. This measure is called the "Articulation Index" (AI). Methods of calculating AI have been improved and developed to the point where standard methods for its calculation can be proposed for use in the military and industry. The procedures presented in this report should be of benefit to communications engineers responsible for the design and operation of speech communication systems. (7 tables, 15 fig., 19 ref.)—*USAF ESD*.

3966. Loveless, N. E. (Queen's Coll., Dundee, Scotland) Direction-of-motion stereotypes: A review. *Ergonomics*, 1962, 5(2), 357-383.—"The ef-

fects of directional relationships between controls and displays are examined. . . . Methods of investigation are discussed." (70 ref.)—B. T. Jensen.

3967. Narva, Marshall Allan. (U. Maryland) Effects of operational experience on performance with certain display-control relationships. *Dissert. Abstr.*, 1961, 22(6), 2081-2082.—*Abstract*.

3968. Pigg, L. D. (Aerospace Medical Lab.) Human engineering principles of design for in-space maintenance. *USAF ASD tech. Rep.*, 1961, No. 61-629. 10 p.—Results of research on problems related to human performance of maintenance actions in space systems are reviewed. The interactions of sensory, psychomotor, and motor functions are discussed, along with problems of remote-handling applications in the space environment.—*USAF ASD*.

3969. Shephard, A. H., Abbey, D. S., & Humphries, M. (U. Toronto) Age and sex in relation to perceptual-motor performance on several control-display relations on the TCC. *Percept. mot. Skills*, 1962, 14(1), 103-118.—Results of investigations with the Toronto Complex Coordinator generally indicated that age, sex, and task together determined level of performance of 9 measures. Level of performance for the 3 tasks generally was ordered Standard, Reverse, and Out-of-Phase, with the Standard Task showing the largest number of matches, smallest number of errors, etc. Male performance was generally superior to female. Most of the curves for performance as a function of age were U- or inverted U-shaped with superior levels of performance in the middle age ranges. Results are examined in terms of a prior learning of directional relations hypothesis and other hypotheses.—W. H. Guertin.

3970. Stuntz, Stephen E. International language for aviation: A review by Air Force sponsored research from 1952 to 1961. *USAF ESD tech. docum. Rep.*, 1962, No. 62-14. 72 p.—The administrative provisions for this research are briefly reviewed. In Part I, reports of research are categorized and discussed under these topics: communication in English with non-native English speakers, comparative effectiveness of ICAO and United States-United Kingdom phraseologies, operational communications, voice transmission of numerals, basic and theoretical findings, and miscellaneous secondarily developments. A bibliography of 74 references comprises Part II. An annotated bibliography of all reports, arranged by contracts, appears as Appendix I.—*USAF ESD*.

3971. Webster, J. C., & Rubin, E. R. (USN Electronics Lab., San Diego, Calif.) Noise attenuation of ear-protective devices. *Sound*, 1962, 1(5), 34-46.—10 ear-protective devices—3 plugs, 2 muffs, 2 phone-in-muff combinations, 1 muff in protective helmet, 1 phone-in-muff in protective helmet, and 1 plug-muff combination—were tested for noise attenuation. The method of binaural threshold shift of $\frac{1}{2}$ -octave bands of noise (occluded ears minus open ears) using 3 trials on 5 Ss was used. Only in the frequency range from 60-300 cycles per second were plugs better than the better muffs. All devices gave more attenuation as the frequency region increased from low to high, except the Zwislocki resonant plug, which gave somewhat less attenuation in the high-frequency region.—*Journal abstract*.

Displays

3972. Baker, J. D., & Whitehurst, A. J. A comparison of two logic symbol coding techniques in a simulated digital device maintenance environment. *USAF ESD tech. docum. Rep.*, 1962, No. 62-196. 111 p.—This study was designed to evaluate which of 2 techniques is better for encoding the logic symbols in detailed logic diagrams to convey information about digital circuits. One technique employed shape encoding to differentiate basic logic functions, and the other used alphabetic identifiers. The findings from this study showed that using shape encoded symbols in simulated detailed logic diagrams resulted in a significant reduction in the time required to solve maintenance type problems. Based upon observations made during the design and conduct of this study, 2 sets of recommendations are made. 1 set of recommendations has to do with research methodology, the 2nd with operational conditions. Special programmed handbooks were prepared for the pretraining and orientation phases of this study. These are included in an appendix to this report.—*USAF ESD.*

3973. Blackwell, H. Richard; Ohmart, James G., & Brainerd, Robert W. (Ohio State U.) Experimental evaluation of optical enhancement of literal visual displays. *USAF ASD tech. Rep.*, 1961, No. 61-568. 66 p.—“The visual displays of aerial views were obtained by optical enhancement of photographic negatives of various areas in a terrain model. Two enhancement techniques were used: manipulation of photographic processing to alter luminance contrast values and optical spatial filtering to suppress or eliminate selected sizes of luminance discontinuities. Performance was measured in terms of probability of target detection under conditions of veiling light. When the probability of detection was low or moderate at a gamma of 1, increases in gamma were accompanied by increases in the probability of detection; when it was high at a gamma of 1, detection probability either remained unchanged or decreased slightly with increasing gamma. Of the optical filtering masks studied, some always reduced the probability of target detection, whereas the most effective increased this probability at the lower values of detection probability.”—*E. L. Borrowman.*

3974. Buschke, Herman. (Albert Einstein Coll. Medicine) Registration in and retrieval from immediate memory. *Life Sci.*, 1962, No. 6, 257-261.—“Visual displays consisting of any of the 15 possible combinations of four lights at the corners of a rectangle, were presented by teletype program to 67 normal adults. These randomly chosen displays were presented once a second for 200 milliseconds in series of 16 displays each. There were sixteen such series, separated from each other by eight second silent periods. Every series of 16 displays contained 4 repetitions of displays already in the same series. . . . The S's instructed to press a microswitch whenever they saw a repetition of any display already seen in the same series. . . . [Significantly] correct responses ($p < 0.001$ by the Kolmogorov-Smirnov test) were made for series containing one, two and three displays. Correct responses fell sharply for series of four displays ($p > 0.05$), rose slightly but significantly for series of five displays ($p < 0.01$), and remained at chance levels ($p > 0.05$) for series containing six or more displays.”—*C. T. Morgan.*

3975. Conrad, R. (Cambridge U.) The location of figures in alpha-numeric codes. *Ergonomics*, 1962, 5(2), 403-407.—33 postmen were presented with combinations of 4 letters and 2 figures. Figures were always paired but in different positions. Fewest errors in reproduction occurred when the figures were in positions 4 and 5.—*B. T. Jensen.*

3976. Ellis, H. C., Bessemer, D. W., Devine, J. V., & Trafton, C. L. (U. New Mexico) Recognition of random tactual shapes following pre-differentiation training. *Percept. mot. Skills*, 1962, 14(1), 99-102.—3 independent groups of Ss were employed, receiving either distinctiveness, equivalence, or observation training. No superiority in shape recognition occurred as a result of distinctiveness training per se; however, a significant reduction in recognition efficiency occurred as a result of equivalence training. Results were interpreted as being consistent with the hypothesis of acquired equivalence of cues but not consistent with the hypothesis of acquired distinctiveness of cues. An alternative explanation of the results pertaining to equivalence training was proposed, which emphasized the relevance of the response label to the shape.—*W. H. Guertin.*

3977. Goldiamond, Israel. (Arizona State U.) Ongoing visual monitoring. *USAF ESD tech. Rep.*, 1961, No. 61-22. 18 p.—“Procedures for controlled alteration and definition of ongoing reading are presented. Reading not only has intrinsic interest, but can also be considered as a form of visual monitoring of a complex display, in which the behaviors required have linear sequences. Implications for other types of monitoring are presented. Commercially available equipment is discussed which can be used for scheduled presentation and control of responses in major psychophysical methods, for both human and animal monitoring research.”—*N. B. Gordon.*

3978. Hough, Paul V. C. (Brookhaven National Lab., Upton, N. Y.) General purpose visual input for a computer. *Ann. N. Y. Acad. Sci.*, 1962, 99, 323-334.—Visual information is a 3-dimensional space distribution of light source intensity reducible to pairs of 2-dimensional descriptions. Computers reproduce visual images by showing mean light density distributions in a large number of area elements. An alternate and more efficient method is to show contour line representation. The Hough-Powell digitizer which can use either method is described. Computer methods in process of development for recognizing patterns and visual events in time are also described.—*B. S. Aaronson.*

3979. Mezei, Árpád. (Hungarian Acad. Sciences) A színek információközvetítő értékeinek különbségeiről. [The value of different colors in conveying information.] *Pszichol. Taulmányok*, 1, 1958, 121-125.—In order to evaluate P. M. Fitts' theory on “matching” stimuli and responses in conditioning, experiments were designed to show that different colors as conditioned stimuli for motor responses are not equally adapted to elicit these responses. The motor response was executed with less errors if the color chosen for conditioned stimuli was from the 2 extremes of the spectrum, while colors from the central part of the spectrum elicited a greater number of errors. The writer concludes that the specific information value of different colors is seemingly unequal. (Russian & English summaries)—*E. Friedman.*

3980. Smith, Sidney L. (Mitre Corp.) Angular estimation. *J. appl. Psychol.*, 1962, 46(4), 240-246.—In one study, 10 Ss estimated the directional trend (heading) of simulated radar trials, using different response modes; rotary switch adjustment permitted better accuracy than numerical estimation. Varying the displayed length of the simulated trials from $\frac{1}{8}$ to $1\frac{1}{2}$ inches had no apparent effect on estimation accuracy. 5 civilian Ss proved more accurate than 5 airmen. In a 2nd study, 20 Ss estimated the angular position of lines varying in length from $\frac{1}{8}$ to 1 inch, using equipment which permitted switch adjustment and numerical estimation only to the nearest 10 degrees. Results were the same as before. In addition, this report notes differences in estimation accuracy and bias related to the actual angle of displayed lines over a 360-degree range, as well as biasing effects of right- vs. left-handed switch adjustment.—*Journal abstract.*

3981. Teichner, Warren H., & Sadler, Ernest. (U. Massachusetts) Effects of exposure time and density on visual symbol identification. *J. exp. Psychol.*, 1962, 63(4), 376-380.—12 college students were presented with displays of alphabetic letters which varied in number of different letter categories, letter density, and exposure time. On the basis of a distinction between perceptual capacity and short-term memory, it was predicted that at short exposure times, increasing density would increase letter identification, but that at longer exposure times the opposite effect would be obtained. This prediction was confirmed, and several specific conclusions regarding percent correct identification as a function of exposure time and number of symbol categories were also noted.—*J. Arbit.*

3982. York, Cyrus Michael. (U. Maryland) Behavioral efficiency in a visual monitoring task as a function of signal rate and observer age. *Dissert. Abstr.*, 1961, 22(6), 2085.—*Abstract.*

Controls

3983. Gibbs, C. B. (Cambridge U.) Controller design: Interactions of controlling limbs, time-lags and gain in positional and velocity systems. *Ergonomics*, 1962, 5(2), 385-403.—The effectiveness of thumb, hand, and forearm in control, using a joystick, were compared. "Increases of gain and lag may have very different effects upon control, depending on whether they are varied independently or together. A separate increase in either will tend to worsen performance; . . . An increase of gain and lag together may, however, give compensatory effects." Appendices contain numerical data for figures in text.—B. T. Jensen.

SIGNS & LEGIBILITY

3984. Alluisi, E. A., & Adams, O. S. (Human Factors Research Dept., Lockheed-Georgia Co.) Predicting letter preferences: Aesthetics and filtering in man. *Percept. mot. Skills*, 1962, 14(1), 123-131.—Esthetic rank-preference for the English capital letters is predicted from 4 variables: frequency of use in the language, frequency in use as initial letter in family names, frequency as initial letter in words, and the aesthetic quality of the 4 completely closed capitals (B, D, O, Q). R was .91.—W. H. Guertin.

3985. De Young, Kenneth Norman. (U. Minnesota) Word recognition in the upper and lower

visual fields. *Dissert. Abstr.*, 1961, 22(6), 2074.—*Abstract.*

3986. Krylov, A. A. (Leningrad, USSR) Vliianie velichiny diametra shkaly na chitaemost' strelochnykh kontrol'no-izmeritel'nykh priborov. [Effect of dial size on the legibility of pointer-type measuring devices.] *Dokl. Akad. Pedagog. Nauk RSFSR*, 1962, No. 1, 89-92.—Dials of different diameters (50, 60, 90, 120, and 150 mm.) were presented tachistoscopically to 5 Ss (age 19-26). All the other elements of the dials were constant (size of numbers, thickness of lines, etc.). RT and accuracy were measured. Results show that the increase in the dial size is accompanied by a decrease in accuracy and in reading time.—A. Cuk.

DRIVING, ACCIDENTS, SAFETY

3987. Selzer, Melvin L., & Payne, Charles E. (U. Michigan Medical School, Ann Arbor) Automobile accidents, suicide and unconscious motivation. *Amer. J. Psychiat.*, 1962, 119(3), 237-240.—"Thirty alcoholic and 30 non-alcoholic male psychiatric patients were evaluated to determine past serious suicidal preoccupation or previous suicidal attempts. These data were correlated with the total number of automobile accidents for which the patient was responsible. The 33 patients deemed to be suicidal averaged 2.70 accidents per patient whereas the 27 non-suicidal patients averaged 1.30 accidents. In the 30-patient alcoholic group, the 17 suicidal patients were responsible for 63 accidents, whereas the 13 non-suicidal patients were responsible for 24 accidents, yielding mean values of 3.70 and 1.77 accidents per person respectively. These differences were statistically significant."—N. H. Pronko.

ADVERTISING & CONSUMER PSYCHOLOGY

3988. Appel, Valentine, & Hernandez Randolph J. (Marketing, Merchandising, & Research, Inc., Flushing, N. Y.) Show-Z-Minx: A note on code lettering. *J. appl. Psychol.*, 1962, 46(4), 263-264.—9 of the 26 letters of the alphabet can be read upside down as well as right side up. The use of these letters as code designations in blind product testing can have a significant effect upon respondents' perceptions of the product, particularly when there is the possibility of settling or separation. An incident is reported in which the use of one of these letters had the effect of introducing irrelevant sources of variance into a product test of a packaged dry food.—*Journal abstract.*

3989. Bullock, Henry A. (Texas Southern U.) Consumer motivations in black and white: Part I. *Harv. Bus. Rev.*, 1961, 39(3), 89-104.—National advertising must be quite subtle in its appeal to the Negro if it is to avoid alienation of the more lucrative white market. Inadequacies in early studies are described. New research takes into consideration "the need to belong," "conflicting self-image," "need for security," "role confusion," "economic anxieties," "credit buying," "product attitudes" and related concepts.—C. F. X. Youngberg.

3990. Bullock, H. A. (Texas Southern U.) Consumer motivations in black and white. Part II. *Harv. Bus. Rev.*, 1961, 39(4), 110-124.—Based on an analysis of responses of more than 1600 Negroes and whites to tests and interviews the 3 major areas discussed are: (a) some motivations common to both groups of consumers, (b) media through which the

2 groups can be reached simultaneously, and (c) types of advertising patterns likely to have greatest impact on the largest number of the 2 groups.—C. F. X. Youngberg.

3991. Compton, Norma H. (U. Maryland) Personal attributes of color and design preferences in clothing fabrics. *J. Psychol.*, 1962, 54(1), 191-195.—An exploratory study conducted in the fall of 1961 resulted in several statistically significant differences in personality and occupational interests between groups of college students classified according to specified color and design preferences in clothing fabrics. Students preferring deep shades and saturated colors scored higher in sociability than students preferring tints. Students choosing small fabric designs were differentiated from those choosing large designs by higher scores in femininity and good impression (as measured by the California Psychological Inventory) and by the possession of interests similar to those of people engaged in clothing merchandising.—*Author abstract.*

3992. Mileff, Edward, & Irwin, Leslie W. (San Diego State Coll.) Discriminatory power of high school seniors to evaluate advertisements in popular periodicals on the authenticity of their health claims. *Res. Quart. Amer. Ass. Hlth. Phys. Educ. Recr.*, 1962, 33(2), 249-254.—The purpose of the study was to determine how well high school seniors could evaluate the authenticity of health claims made in advertisements from current best-selling periodicals. 881 students evaluated 47 advertisements which had previously been validated for use in the study by juries of experts. For student evaluation, the advertisements were organized in 2 parts and administered at separate classroom periods. A 5-point rating scale

describing the authenticity of the expressed health claims in the advertisements was used. Substantial numbers of seniors reflected low discriminatory power in their responses, although girls did significantly better than boys.—*Journal abstract.*

3993. Singh, Paras N., & Huang, Sophia C. (Ohio State U.) Some socio-cultural and psychological determinants of advertising in India: A comparative study. *J. soc. Psychol.*, 1962, 57(1), 113-121.—The present study was designed to investigate similarities and differences between Indian and American advertisements and relate these findings to certain socioeconomic and cultural conditions in the 2 countries. *Issues of Life* and the *Illustrated Weekly of India* were evaluated on the following variables: size of advertisements, use of pictures, use of color, type of appeal, and isolation. It was found that the American publication used more illustrations, more color, more personal appeals, and more isolation. The Indian advertisements were typically in black-and-white, crowded, and verbal in appeal.—*Author abstract.*

3994. Wells, William D. (Rutgers U.) Measuring readiness to buy. *Harv. bus. Rev.*, 1961, 39(4), 81-87.—The range of consumer predispositions to buy or not to buy a given product or service can be described in terms of a psychological continuum. The point on the continuum at which an individual stands can be determined by attitude scaling. By comparing indices of readiness to buy with actual purchases it becomes possible to uncover trouble spots. Subanalyses by demographic and other respondent characteristics may further point up needed shifts in advertising or other aspects of the marketing strategy.—C. F. X. Youngberg.

BRIEF SUBJECT INDEX

This index supplements, but does not duplicate, the classification of abstracts given in the Table of Contents. It is assumed that the reader will have scanned whatever categories of classification interest him and that he will use this index only for cross references or for subjects that are more specific than the general categories of the classification. When many numbers are encountered under a heading, the reader may simplify his task by matching the numbers found under the two or more headings that specify his particular interest.

- Ability (See also the several abilities), 3132, 3873
 Ability/verbal, 3518
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Psychological Abstracts

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EDITORIAL NOTES

In the fall of 1962, *Soviet psychology and psychiatry* began publication on a quarterly basis. It consists of selected articles from Soviet journals in English translation. The first issue contained 3 articles on conditioning, 1 on perception, 3 on cognition, 3 on psychiatry, and 1 on general principles. Several distinguished psychologists are on the Advisory Committee. Published by International Arts and Sciences Press, 156 Fifth Avenue, New York 10, subscription is \$35.00 per year.

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From January, 1963 the psychiatric journal long known as the *Journal of Mental Science* will appear as the *British Journal of Psychiatry*.—C. T. Morgan.

GENERAL

OBITUARIES

3995. Anon. John Davidson Ketchum. *Canad. J. Psychol.*, 1962, 16(3), 169.—Obituary.

3996. Bresson, François. In memoriam: Paul Guillaume (1878-1962). *Psychol. Franc.*, 1962, 7(3), 178-179.—Obituary.—C. J. Adkins.

3997. Brodsky, Paul. Lydia Sicher: 1890-1962. *J. indiv. Psychol.*, 1962, 18(2), 184-186.—Obituary.—A. R. Howard.

3998. Hunt, William A. (Northwestern U.) Carney Landis: 1897-1962. *Amer. J. Psychol.*, 1962, 75(3), 506-509.—Obituary.—R. D. Nance.

3999. Rapaport, I. (645 W. 160th St., NYC) In memoriam: Theodore Simon (1873-1961). *Amer. J. ment. Defic.*, 1962, 67(3), 367-368.—An obituary and portrait.—V. S. Sexton.

HISTORY & BIOGRAPHY

4000. Ansbacher, Heinz L. (U. Vermont) Was Adler a disciple of Freud? A reply. *J. indiv. Psychol.*, 1962, 18(2), 126-135.—Evidence to support Adler's denial is presented.—A. R. Howard.

4001. Cardno, J. A. (U. Tasmania, Hobart, Australia) The experimental upsurge: 1797-1874. *Amer. J. Psychol.*, 1962, 75(3), 499-501.—Production during this period was assessed by extracting relevant entries from Rand's bibliography in (J. M. Baldwin (Ed.), *Dictionary of Philosophy and Psychology*, 1905). There are 140 items in the "Experimental and Physiological" section. It is concluded that Boring's notion of an experimental upsurge in psychology at about 1860 is justified. "Experimental is a member of the moderate nouveau-riche family in psychology, by contrast with the old residents in the psychological household, like Abnormal and Insanity."—R. D. Nance.

4002. Maslow, A. H. (Brandeis U.) Was Adler a disciple of Freud? A note. *J. indiv. Psychol.*, 1962, 18(2), 125.—Adler's denial during a personal encounter is recalled.—A. R. Howard.

4003. Naudé, S. M., van der Merwe, A. B., Bartlett, F. C., & Murchison, C. Simon Biesheuval. *Psychol. Afr.*, 1962, 9, 3-13.—Tribute is paid to Biesheuval, founder and director of the National Institute for Personnel Research. 68 of his publications (1935-1959) are listed. There is a full-page photograph of Biesheuval.—J. L. Walker.

4004. Nunberg, H., & Federn, E. (Eds.) *Minutes of the Vienna Psychoanalytic Society, Vol. 1. 1906-1908*. New York: International Univer. Press, 1962. xxxvii, 410 p. \$10.00.—The Wednesday Evening Society which met at Freud's home beginning in 1902 later became the Vienna Psychoanalytic Society. Members of the group during 1906-1908 were A. Freud, D. Adler, A. Bach, G. Bass, A. Brecher, P. Deutsch, E. Federn, P. Frey, M. Graf, A. Hautler, Hugo Heller, E. Hitschmann, E. Hollerung, A. Joachim, M. Kahane, A. Meisl, Otto Rank, R. Reitler, I. Sadger, M. Steiner, W. Stekel, R. von Urbantschitsch, and Fritz Wittels. 1906 was the 5th year of meeting of the group. Rank was the paid secretary. Minutes of 53 scientific meetings are presented including case presentations, papers, book reviews, reviews of the literature, and discussions by participants.—D. Prager.

4005. Postman, Leo (Ed.) (U. California, Berkeley) *Psychology in the making: Histories of selected research problems*. New York: Knopf, 1962. viii, 785 p.—Contributors, in addition to the editor, are: Richard Crutchfield, William Dukes, Harrison Gough, Julian Hochberg, Marjorie Honzik, David Krech, Gerald McClearn, John McKee, Donald MacKinnon, Donald Riley, Mark Rosenzweig, Theodore Sarbin, and Read Tuddenham. Each chapter begins with the 1st modern statement of the problem and its earliest "solution." The historical background of each subject is followed by a survey of present-day schools of thought and experimental methods. Topics covered are: guides to understanding history, cortical localization, hunger and thirst, inheritance of behavior, nativism and empiricism in perception, reward and punishment in human learning, memory for form, nature and measurement of intelligence, clinical and statistical prediction, sucking behavior of mammals, repression, and understanding hypnotic phenomena. References, numbering over 1100 for the whole book, are given at the end of each chapter.—R. D. Nance.

4006. Pratt, Kenneth J. (Los Angeles State Coll.) *Motivation and learning in medieval writings*. *Amer. Psychologist*, 1962, 17(7), 496-500.—Quotations from writings during medieval times (the span in the Western World from 400 to 1400 A.D.) provide discussions and examples of conditioning or

substitute stimulation, compensation, rationalization, projection, learning problems, individual differences, and "the importance of the formative years and of the significance of childhood impressions in the formation of attitudes and resultant behavior." However, "there does not seem to be much that is cumulative, no temporal development or drift, in behavioral knowledge." But "one can grant to many medieval persons rich insights into the behavior of their fellows."—S. J. Lachman.

4007. **Rebelsky, Freda Gould.** (Massachusetts Inst. Technology) **Coming of age in Davos: An analysis of the maturation of Hans Castorp in Thomas Mann's "The Magic Mountain."** *Amer. Imago*, 1961, 18(4), 413-421.—As a child, Hans Castorp had identified with his grandfather, who died, and he had restrained his ability to know his feelings and to respond to people. Now, on the mountain at Davos, "he moves from withdrawal to activity and developing competence, from dependence to independence, and . . . through numerous career choices, intellectual growth, and types of interests to his final choice of career." As he becomes more alive and leaves to join the army, his place in society is once more a compact with death. His childhood trauma again controlled his life to some extent, and German society of early World War I had no real place for Hans Castorp the humanist.—W. A. Varvel.

4008. **Rieff, Philip.** **Freud: The mind of the moralist.** Garden City, N. Y.: Doubleday, 1961. 441 p. \$1.45 (paper).—A paperback edition of the book first published in 1959.—E. Y. Borrowman.

4009. **Sterba, Richard.** (Grosse Pointe, Mich.) **On Sigmund Freud's personality.** *Amer. Imago*, 1961, 18(3), 289-304.—This appreciation of Freud calls attention to his human interest in others, to his deep concern in the welfare of his friends, and his sensitivity to the finest shades of their emotions. Examples are given in letters to Theodor Reik, to Ludwig Binswanger, and to an American mother who had written him in distress about her son.—W. A. Varvel.

4010. **Syz, Hans.** (Lifwynn Found., Westport, Conn.) **A summary note on the work of Trigant Burrow.** *Int. J. soc. Psychiat.*, 1961, 7(4), 283-291.—The following different periods in Burrow's life and activities are reviewed: (a) 1875-1909—youth, medical and psychological studies; (b) 1909-20—training with C. G. Jung in Zurich, psychoanalytic practice, emphasis on social aspects of behavior disorders; (c) 1920-32—development of group- or phylo-analysis, studies of social neurosis, organizing the Lifwynn Foundation for Laboratory Research in Analytic and Social Psychiatry; and (d) 1932-50—intensive group work with increasing emphasis on proprioceptive aspects of man's behavioral health and illness. Burrow was one of the great pioneers in the development of social psychiatric theory and research. (43 ref.)—R. M. Frumkin.

4011. **Walsh, Maurice N.** (Beverly Hills, Calif.) **Some character aspects of the satirist (Pietro Aretino).** *Amer. Imago*, 1961, 18(3), 235-262.—Pietro Aretino was "one of the most remarkable and contradictory personalities in the history of literature." Most of his work tended to "ridicule the great, to clown, to provoke admiration, to render situations and people absurd and ridiculous, and to arouse

amusement at his wit and anger at his insults." His life appeared to consist of little beside the acting out of unconscious impulses. His disturbance was in the nature of a character deformation with marked narcissistic, oral, and oral sadistic features. In his life and works he struggled against deep self-destructive urges and depressive feelings.—W. A. Varvel.

4012. **Ware, J. Garth.** (USN Hosp., Camp Pendleton, Calif.) **Coleridge's great poems reflecting the mother imago.** *Amer. Imago*, 1961, 18(4), 331-352.—In 6 months, Coleridge produced "The Rime of the Ancient Mariner," "Kubla Kahn," and Part 1 of the projected 5 parts of "Christabel." In these poems "one can see emerging with varying degrees of clarity, a fantasy resulting from a fixation on early mother-child or -infant relations." The imagery of "Christabel" is especially shifting and contradictory but responsive to analytic interpretation. This highly productive period ended with his separation from William and Dorothy Wordsworth. "The remainder of his life was dominated by 3 themes: brandy, opium, and endless literary speculation as to what had caused the poetic lightning to hit him once, but never again."—W. A. Varvel.

THEORY & SYSTEMS

4013. **Beritov, I. S.** (Inst. Physiology, Georgian Acad. Sciences, Tbilisi, USSR) **Kharakteristika i proiskhozhdenie proizvol'nykh dvizhenii u vysshikh pozvonochnykh zhivotnykh.** [Characteristics and origin of voluntary movements in higher vertebrates.] *Zh. vyssh. nervn. Deiatel.*, 1962, 12(2), 193-201.—Theoretico-experimental discussion on the basis of data obtained in the author's laboratory. By voluntary movements is meant such behavioral acts as are directed by images of vitally important objects in the environment. All the receptors participate in the creation of these images; but their projection into the environment is due to visual, vestibular, and auditory perception.—A. Cuk.

4014. **Čáp, Jan.** **Hlavní zásady marxistické koncepcie psychologického rozboru činnosti.** [The main principles of the Marxist conception of the psychological analysis of activities.] *Acta U. Carolinae, Ser. phil. hist.*, 1961, No. 1, 3-14.—An application of Marxist theory to the understanding of unity of organism and environment. This theory, superior to introspective and behavioristic theories, helps to solve practical problems of production and education.—H. Bruml.

4015. **Cattell, Raymond B.** (U. Illinois) **Group theory, personality and role: A model for experimental researches.** In Frank Geldard (Ed.), *Defence psychology* (See 37: 4053) Pp. 209-259.—28 propositions are presented "defining a set of concepts in group behavior which are mutually consistent and offer a single theoretical model. More than half of these have to do with roles, relating them both to group functioning and personality. The 30 accompanying formulae and equations define the actual calculations to be used in measuring and relating these concepts, as a basis for further experimental research on hypotheses." (48 ref.)—G. H. Mowbray.

4016. **Fraisse, Paul.** **Vers une psychologie complète.** [Toward a complete psychology.] *Psychol. Franc.*, 1962, 7(3), 165-177.—Presidential address at

the 1962 meeting of the Société Française de Psychologie.—C. J. Adkins.

4017. Hofstätter, P. R. *Theoretische Grundlagen der Verhaltenssteuerung*. [Theoretical foundations of behavior control.] *Psychol. Rdsch.*, 1962, 13(3), 163-179.—Methodological considerations necessitate a separation of the conceptual content and the psychophysiological processes of behavior control. The conceptual content is seen as the covariance in an interdependence system with 8 poles: habit, need, constitution, situation, behavior, perception, social values, and learning. A feedback model represents the psychophysiological processes. The importance of anxiety and learning in behavior control is emphasized.—W. J. Koppitz.

4018. Mayer-Gross, W. On biological and psychological time. *Pratibha*, 1959, 2(2), xi-xvii.—Time awareness is influenced by environmental factors like light, chemical factors, temperature, etc. Exact temporal measurement in the animal world is indicated in phenomena like physiological clockwork, bird migration, and "cerebral clock." Cyclic symptoms in mental disorders are found like periodic diseases, persistent sleep disturbances, mood swings, postencephalitic inversions. If "a drug could be developed influencing the diurnal cycle directly, we may come nearer to treating successfully many pathological conditions which at present resist our therapeutic endeavours."—U. Pareek.

4019. Oliver, W. Donald, & Landfield, Alvin W. (U. Missouri) Reflexivity: An unfaced issue of psychology. *J. indiv. Psychol.*, 1962, 18(2), 114-124.—Since the psychologist cannot be divorced from the object of his study, paradoxes of self-reference emerge. To avoid these, he should become aware of their nature and also examine his own activities in the light of "whether anything he is about to expound is inconsistent with the ability to do all these things that he has arrogated to himself."—A. R. Howard.

4020. Rao, S. K. Ramachandra. An essay in psychological axiomatics. *Pratibha*, 1959, 2(1), 20-31.—Some axioms of psychology in the mathematical concepts of set, space, and vector are stated. A set of 3 axioms—inclusion, attribution, and action—are stated in symbolic terms.—U. Pareek.

PHILOSOPHY

4021. Burr, Harold Saxton. *The nature of man and the meaning of existence*. Springfield, Ill.: Charles C Thomas, 1962. 100 p. \$5.50.—A series of essays dealing with: the notion of universe, the biology of man, the evolution of man, man as an organism, man and his nervous system, the sense of well-being, the anatomy of anxiety, the nature of man, and the meaning of existence.—C. H. Miley.

4022. Collier, Rex M. (VA Hosp., St. Louis, Mo.) Independence: An overlooked implication of the open system concept. *J. indiv. Psychol.*, 1962, 18(2), 103-113.—Unifying concepts of the organism aid research and theory building. Toward this end, the assumption is made "that living protoplasm is an open energy system." Thus "it is implied that there are energy transactions between the system and its surroundings. This is one of the more obvious implications. . . . [A] less obvious implication is that the open system of living protoplasm has also some degree of independence from surroundings." A basis

is offered for such concepts as degrees of freedom, individuality, and self.—A. R. Howard.

4023. Govindaswamy, M. V. Surrender—not to self-surrender. *Pratibha*, 1959, 2(2), i-x.—Surrender can be "voluntary, involuntary, active or passive. The surrender can be to an idea, to a cause, to an individual, to a group or to Godhead. . . . Pathology arises when such surrender is either anti-individual or anti-social. . . . Surrender to an ideal or the Godhead is the ultimate goal from surrender—not to self-surrender. The surrender is from the individual to the cosmic and is a problem in the context of ultimate reality. This concept is characteristic of Indian culture."—U. Pareek.

4024. Hawkins, David. (U. Colorado) Design for a mind. *Daedalus*, 1962, 91(3), 560-577.—This is a philosophical myth for the computer age in which Hawkins seeks to specify the properties that the species of thinking machines—*Machina cogitans*—must have to attain consciousness. Hawkins discusses copying units, self-maintenance, intensionality, gattling, and novelty as necessary aspects and processes of such a species.—K. E. Davis.

4025. Hutten, Ernest H. (London, England) An interpretation of the mind-body problem. *Amer. Imago*, 1961, 18(3), 269-277.—Epistemological dualism is the product of an ambivalent fantasy. The official, philosophical attempts at treating the mind-body problem are considered with particular attention to the notions of substance and of cause. "A human response to a stimulus always involves both the inner and the external world, and the two are not cut off from one another; they are in a dynamic equilibrium due to the incessant introjection and projection by which we maintain ourselves."—W. A. Varvel.

4026. Mahrer, A. R. (Denver VA Hosp.) A preface to the mind-body problem. *Psychol. Rec.*, 1962, 12(1), 53-60.—The problem of dualism is seen to emanate from 3 assumptions about the human being: the number of basic events or substances, the nature of these stuffs, and their organization. The author takes a monistic position with reference to the 1st assumption, attributes no intrinsic nature other than a time-space locus, and attempts to gain understanding "by means of abstracting from the human being and his behavior." This latter process yields constructs which are descriptive of (i.e., labels for) but not part of the behavioral event. Component analyses of the human (e.g., reductionism) are rejected. From this position the issue of dualism "is a pseudoproblem, unanswerable because it is irrelevant."—R. J. Siedel.

4027. McGill, V. J. (Inst. Philosophical Research) On establishing necessary human abilities and disabilities. *Phil. Sci.*, 1962, 29(4), 393-405.—Claims of certain recent philosophers (e.g., Hampshire, Husserl) purportedly establishing universal human abilities and disabilities on logical grounds are rejected. The proper ranges of acts such as believing and intending are matters to be determined by inductive method rather than by logical analysis.—M. Turner.

4028. Murthy, A. Krishna. A comparative study of the conception of the ego and its dissolution. *Pratibha*, 1959, 2(2), 86-90.—The concepts of ego in the various schools of Indian philosophy—Carvak, Samkhya, Jaina, Buddhist, Nyaya-Vaiseska, Mimam-

sakas, Advaita Vedanta, Visistadvaitism, Dvaitinism—are mentioned. "The various philosophical schools agree on an essential attitude, namely, the characterization of an individual ego as bound or fettered. This is an unnatural state, a deviation from an original equilibrium, an unsteady emergence. What is termed emancipation in the philosophical language is merely the restoration of the original condition. Thus the problem of the emergence of the ego for an Indian thinker is intimately associated with that of the dissolution of the ego."—U. Pareek.

4029. Rothstein, J. (Boston, Mass.) **Discussion: Information and organization as the language of the operational viewpoint.** *Phil. Sci.*, 1962, 29(4), 406-411.—It is suggested that the operational viewpoint can be formalized within the framework of information theory. Measurement constitutes the informational input; laws and theory (in the case of mechanics), a noiseless communication channel; and prediction the output. However, as "a general methodology . . . empirical operationism . . . should be noncommittal with regard to specific laws and assumptions."—M. Turner.

4030. Ruitenbeek, Hendrik M. (Ed.) **Psychoanalysis and existential philosophy.** New York: Dutton, 1962. xxvi, 262 p. \$1.75 (paper).—A collection of essays that gives a broad and varied view of existential psychoanalysis as it is today. The contributors are Ruitenbeek, Paul Tillich, Ludwig Binswanger, W. Van Dusen, R. D. Laing, Thomas Hora, Medard Boss, J. H. Van Den Berg, F. J. J. Buytendijk, Rollo May, and Eugen Kahn.—C. A. Curran.

4031. Sen, Indra. **The objectless or self-existent joy in Indian philosophy.** *Pratibha*, 1959, 2(1), 5-7.—"The fact of self-existent joy is of tremendous consequence to the psychology of emotions, which has baffled psychological investigation so far . . . It may be a most potent unifying force in personality. Self-existent joy is the key note in Indian philosophy."—U. Pareek.

STATISTICS

4032. Gibson, W. A. (Army Personnel Research Office) **Orthogonal predictors: A possible resolution of the Hoffman-Ward controversy.** *Psychol. Rep.*, 1962, 11(1), 32-34.—"Two different definitions of the independent contribution of a single predictor toward multiple rectilinear prediction merge into one in the case of mutually uncorrelated or orthogonal predictors. This note provides the theory for converting a set of correlated predictors into a maximally corresponding orthogonal set whose two kinds of independent contribution are identical."—B. J. House.

4033. Smith, G. Milton. (City U. New York) **A simplified guide to statistics for psychology and education.** (3rd ed.) New York: Holt, Rinehart & Winston, 1962. xix, 164 p. \$1.75 (paper).—The more commonly used statistical tools and concepts are assembled and illustrated in this paperbound handbook. This new edition differs from earlier versions in that it contains methods for calculating means and variances, and correlation and regression coefficients. 6 new tables have been added. "Though this Guide is primarily intended as a means of clarifying and supplementing the material in general and laboratory courses . . . it may now serve as a short text for a one-semester course in statistics; for it contains

most of the 'minimum essentials' of such a course."—R. Perloff.

Experimental Design

4034. Lasky, Julian J. (VA Hosp., Perry Point, Md.) **The problem of sample attrition in controlled treatment trials.** *J. nerv. ment. Dis.*, 1962, 135(4), 332-337.—"It is virtually impossible to prevent sample attrition during the course of a controlled treatment evaluation study conducted in a hospital. Possible consequences of treatment-related and non-treatment-related dropouts on results have been briefly presented and six approaches or partial solutions to the sample attrition problem have been discussed. Sample attrition can be kept to a minimum through the use of well designed experiments based on adequate information regarding the major components of the experiment; subjects, treatments, setting and criterion measures."—N. H. Pronko.

4035. Rawson, Harve E., & Rettig, Salomon. (Ohio State U.) **Controlling the effects of "clouding variables" in multivariate research designs.** *Educ. psychol. Measmt.*, 1962, 22(3), 493-500.—"A method of semi-partial multiple correlation is presented which enables the investigator to test the effects of any number of 'clouding variables' upon the independent and dependent variables. This method takes into account all interaction terms. The amounts of criterion variance which are explained by the predictors alone, by the clouding variables alone, and by the predictors and the clouding variables, can be ascertained in a simple, meaningful fashion with a minimum of computational drudgery." The use of the procedure is illustrated with a sample of 20 students. The criterion was a score of overestimation of knowledge and the predictors were moral value judgment factor scores. The clouding variables were 6 measures of student socioeconomic status.—W. Coleman.

4036. Rosenthal, Robert, & Halas, Edward S. (U. North Dakota) **Experimenter effect in the study of invertebrate behavior.** *Psychol. Rep.*, 1962, 11(1), 251-256.—"A total of 8 Es participated in two studies of invertebrate behavior. In both experiments there were significant E effects on the performance of the invertebrate Ss [planaria]. In one of the experiments, there were significant E effects on Ss' performance changes. Factors accounting for significant E effects in studies of invertebrate behavior have yet to be demonstrated. In view of the findings presented, a Treatments-by-Es design was suggested as useful in this area of research."—B. J. House.

Formulas & Calculations

4037. Durup, H. **Etude critique des conditions d'utilisation du coefficient de corrélation "point-tetrachorique" et du rapport ϕ/ϕ_{\max} .** [Critical study on the conditions using coefficient of correlation "point-tetrachoric" and ratio ϕ/ϕ_{\max} .] *Bull. Cent. Etud. Tech. Psychotech.*, 1961, 10(4), 419-431.—"One is often tempted to use the fourfold point correlation coefficient (ϕ) in cases where dichotomies are only apparently natural and should be treated with the tetrachoric coefficient r_t . We recall the means and the extent to which both cases may be discriminated from each other. The ratio ϕ/ϕ_{\max} only makes sense in cases where the marginal dis-

tributions are really prior to the relation considered. The comparisons aimed at proving that ϕ has a more limited extension than r_t or r do not appear justified to us. When a marginal distribution is undetermined (control sample—experimental sample) rather than deciding arbitrarily 50% against 50% it would be more advisable, for theoretical as well as practical reasons to use the ϕ coefficient, the determination of which depends on partial distributions of both subpopulations."—*V. Sanua*.

4038. Gerjuoy, Herbert (U. Toledo) Spearman's rho and Kendall's tau compared with respect to descriptive information. *Psychol. Rep.*, 1962, 10, 879-884.—" ρ and τ are both measures of rank association. Given a sample of n pairs, the number of possible values of ρ and τ is determined. The number of possible values is greater for ρ than for τ , approximately as n^3 is greater than n^2 . Assuming equiprobability of all possible sets of ranked scores, an assumption usually made when testing the significance of ρ or τ , the descriptive information (Shannon's measure of information applied to the probability distribution of the statistics) in ρ and τ is computed for selected small values of n . It is shown that ρ has more descriptive information than τ ."—*B. J. House*.

4039. Jaspén, Nathan. (New York U.) IBM 650 rectangular correlation matrix program for incomplete cases. *Educ. psychol. Measmt.*, 1962, 22(3), 607-611.—This special correlation program has these features: ease of operation, handles incomplete cases, produces either a rectangular or a square correlation matrix, yields 4 outputs, conserves drum storage, and calculates to high arithmetic precision.—*W. Coleman*.

4040. Jaspén, Nathan. (New York U.) Methods of computing correlation matrices on the IBM 1620. *Educ. psychol. Measmt.*, 1962, 22(3), 587-593.—The following methods are suggested: address modification, single row product, the matrix product method, and a program generating method. Additional methods are needed to handle very large matrices and to handle incomplete cases.—*W. Coleman*.

4041. Jaspén, Nathan. (New York U.) Self-scoring item analysis procedure for the IBM 1620. *Educ. psychol. Measmt.*, 1962, 22(3), 595-598.—A single-pass item analysis program is described with the steps to be followed. A point biserial may be computed with this program. Some operating times and costs are cited.—*W. Coleman*.

4042. Levonian, Edward, & Azen Stanley (U. California, Los Angeles) A fortran program for proportion of variance in multiple regression. *Educ. psychol. Measmt.*, 1962, 22(3), 599-601.—This program computes "the proportion of variance in the dependent variable accounted for by m independent variables in a problem for which the inverse matrix of correlations between the independent variables is available."—*W. Coleman*.

4043. Levonian, Edward, & Gregory, Raymond. (U. California, Los Angeles) A fortran program for multiple regression scores. *Educ. psychol. Measmt.*, 1962, 22(3), 603-605.—To compute a given S 's score for a dependent variable, a multiple regression equation may be used. "The procedure involves multiplying the regression coefficient associated with a

given independent variable by the subject's score on that variable, summing these products, then adding a constant."—*W. Coleman*.

4044. Lord, Frederic M. (Educational Testing Service) Test reliability: A correction. *Educ. psychol. Measmt.*, 1962, 22(3), 511-512.—Although Var_{τ} is identical to the squared standard error of measurement ($S.E.^2_{meas.}$) as computed from the Kuder-Richardson Formula 21 (K-R 21), this does not justify the use of K-R 21 as a reliability coefficient in those situations where all examinees take the same test. Depending on which errors of measurement are to be considered, different reliability coefficients may be formulated.—*W. Coleman*.

4045. Lubin, A. (Walter Reed Army Inst. Research, Washington, D. C.) L'utilisation des correlations par rang pour éprouver une tendance dans un ensemble de moyennes. [The use of rank-order correlations to test the trend in a set of means.] *Bull. Cent. Etud. Rech. Psychotech.*, 1961, 10(4), 433-444.—"When the same subjects have been measured several times, any test for trend in the means must take into account the correlations between the observations. Jonckheere has proposed the P test, based on the average value of Kendall's tau. This paper extends Lyerly's study of the average value of Spearman's rho to a J test homologous to Jonckheere's P. In some cases, J can be shown to be more sensitive to P."—*V. Sanua*.

4046. Toigo, Romolo. (Rip Van Winkle Found.) An IBM 650 computer program for the evaluation of a reciprocation index utilizing classroom data based upon unlimited choices obtained under a single sociometric criterion. *Educ. psychol. Measmt.*, 1962, 22(3), 613-615.—Use of the program is illustrated and a brief description of the program is provided.—*W. Coleman*.

Factor Analysis

4047. Comrey, Andrew L. (U. California, Los Angeles) The minimum residual method of factor analysis. *Psychol. Rep.*, 1962, 11(1), 15-18.—"An iterative method of factor analysis is presented which requires no communality estimates. The sum of squares of the off-diagonal residuals is minimized at each step. Computation time exceeds that for the centroid method but is less than that for the principal factor methods."—*B. J. House*.

4048. Howard, Kenneth I., & Cartwright, Desmond S. (U. Chicago) An empirical note on the communality problem in factor analysis. *Psychol. Rep.*, 1962, 10, 797-798.—"A correlation matrix of 47 personality and ability measures, which were obtained on 439 Ss, was factor analyzed using the principal-axis method. Three different communality estimates were used: (a) unity, (b) the communalities resulting from the factor analysis of (a), and (c) squared multiple correlations (SMC). In each case 17 factors were extracted. Inspection of the intercorrelations between the three factor solutions indicated that they were almost identical. The three rotated solutions showed even more similarity. An analysis of the communality estimates indicated that SMCs were the most stable and that other estimates tended to converge on the SMCs."—*B. J. House*.

4049. Overall, John E. (Kansas State U.) Orthogonal factors and uncorrelated factor scores.

Psychol. Rep., 1962, 10, 651-662.—"A general algebraic model for linear components analysis is presented. Although the emphasis in linear components analysis is somewhat different from the emphasis in most treatments of factor analysis, the linear components model yields results which are identical to those resulting from various methods of factor analysis. It is demonstrated that truly orthogonal linear components can be obtained when the matrix which is factored has unity in the principal diagonal. The use of communalities in the principal diagonal cannot in general be expected to yield orthogonal linear components. Empirical examples of various special applications of the general model are presented."—*B. J. House.*

4050. Venkatramiah, S. R. A note on resolving the Heywood case in multiple factor analysis. *Pratibha*, 1959, 2(1), 121-123.—A method is suggested to resolve the mystery.—*U. Pareek.*

4051. Werdelin, I. (U. Lund, Sweden) Synthesis of factor analyses: I. The theoretical background. *Scand. J. Psychol.*, 1962, 3(3), 143-154.—When performing a series of factor analyses, we must be able to compare the different solutions. From a discussion of mathematical invariance theory, a number of assumptions are deduced, which are necessary when we perform a series of analyses with entirely or partly the same tests but different samples of Ss. From these assumptions we obtain a method of rotating the factors of a certain study to a pattern determined by the factors of another study.—*Journal abstract.*

4052. Werdelin, I. (U. Lund, Sweden) Synthesis of factor analysis: II. Application of the method on an example. *Scand. J. Psychol.*, 1962, 3(3), 155-164.—In a previous article (see 37: 4051) a new method of rotating the factors of a certain study to a pattern determined by the factors of another study is presented. Here the method is applied to an example, and it is found that it yields results which are essential to our interpretation of certain factors and to our understanding of the field.—*Journal abstract.*

GENERAL BOOKS & REFERENCE WORKS

4053. Geldard, Frank (Ed.) (U. Virginia) *Defence psychology*. London, England: Pergamon, 1962. (NATO Conference Ser. No. 1) vii, 354 p. \$10.00.—The proceedings of a symposium sponsored by the North Atlantic Treaty Organization Advisory Group on Defence Psychology held in Paris in 1960. There are 23 papers (16 in English and 7 in French) and resumes of discussions that took place. 3 main areas of interest were explored: the identification and assessment of human abilities, training and military education, and group productivity (see 37: 4015, 4147, 4432, 4841, 4891, 5016, 5706, 5708, 5711, 5713, 5721, 5726, 5735, 5741, 5745, 5748, 5750, 5753, 5760, 5785, 5788, 5790). Also included is an invited address by D. E. Broadbent entitled "Common Principles in Perception, Reaction, and Intellectual Decision" (see 37: 5796).—*G. H. Mowbray.*

4054. Havemann, Ernest. *The age of psychology*. (New York: Grove, 1962. 115 p. \$50 (paper).—A paperback edition of a book originally published in 1957.—*C. T. Morgan.*

4055. James, William. *Psychology: The briefer course*. New York: Harper, 1961. xi, 343 p. \$1.85.—A paperback edition of a book originally published in 1892. This edition has an 11-page introduction by G. W. Allport.—*C. T. Morgan.*

4056. McGuigan, F. J., & Calvin, Allen D. (Holtins Coll.) *Current studies in psychology*. New York: Appleton-Century-Crofts, 1958. 225 p. \$2.65.—A collection of current (since 1950) scientific studies selected from the areas of learning; motivation; developmental, personality, and behavior disorders; perception; and social psychology. The studies all come from the area of pure rather than applied research and are presented in journal style. A general introduction covers all of the studies, and an appendix relates the studies to 8 different elementary psychology texts.—*W. L. Faust.*

4057. Sartain, A. Q., North, A. J., Strange, J. R., & Chapman, H. M. (Southern Methodist U.) *Psychology: Understanding human behavior*. (2nd ed.) New York: McGraw-Hill, 1962. xi, 432. \$6.95.—Intended as a 1-semester introductory text which emphasizes the understanding of human behavior, this revision (see 32: 3467) includes considerably more material on learning and the mechanisms of heredity. The 19 chapters cover the standard topics of most basic texts. Each chapter includes a summary, extensive review questions, and suggested readings. Glossary of terms is provided. A study guide is available.—*D. T. Kenny.*

4058. United States Army Medical Research Laboratory. *Publications of US Army Medical Research Laboratory, Fort Knox, Kentucky. Vol. 2. Abstracts of Reports 400-540*. Fort Knox, Ky.: USA MRL, 1962. 141 p.

4059. Yates, Aubrey J. *Frustration and conflict*. New York: Wiley, 1962. x, 236 p. \$5.00.—The literature is reviewed and integrated. The experimental studies of Maier on frustration and fixation are analyzed in detail; so also are the studies of N. E. Miller and others on frustration, conflict, and aggression, and those of Lewin and his colleagues on frustration and regression. A final chapter relates the studies of frustration and conflict to each other within the framework of modern learning theory.—*C. T. Morgan.*

ORGANIZATIONS

4060. Alluisi, Earl A. (Human Factors Research Lab., Lockheed-Georgia Co.) *Proceedings of the fifty-fourth Annual Meeting of the Southern Society for Philosophy and Psychology. Amer. Psychologist*, 1962, 17(9), 618-620.—Approximately 200 attended the meeting held on April 19-21, 1962 in Memphis, Tennessee. "The program included 19 papers and 2 symposia in philosophy, 34 papers and 3 symposia in psychology, and 2 joint sessions." The program of papers and their authors is listed.—*S. J. Lachman.*

4061. American Psychological Association. *Announcement of the XVIIth International Congress of Psychology: Washington, D. C., 20-26 August 1963. Amer. Psychologist*, 1962, 17(9), 655-656.—About 120 foreign psychologists "and an approximately equal number of their American and Canadian colleagues will be invited by the Program Committee to participate in the program of the Con-

gress." There will also be a few sessions of submitted papers. Major program topics are indicated. The working languages of the Congress will be English and French. American Psychological Association committees for this event are listed.—S. J. Lachman.

4062. American Psychological Association. Program of the seventieth Annual Convention of the American Psychological Association: August 30-September 5, 1962, St. Louis, Missouri. *Amer. Psychologist*, 1962, 17(6), 295-422.—Abstracts of papers and symposium announcements are presented; business meetings, presidential addresses, and social functions are announced. Indices of sponsored programs and of participants are provided.—S. J. Lachman.

4063. Arnoult, Malcolm D. (Texas Christian U.) Proceedings of the ninth Annual Meeting of the Southwestern Psychological Association. *Amer. Psychologist*, 1962, 17(9), 611.—325 persons attended the meeting held at Fort Worth, Texas, April 5-7, 1962. The program included 14 research paper sessions, 7 symposia, 4 workshops, and 2 invited addresses.—S. J. Lachman.

4064. Boring, Edwin G. (Harvard U.) The 1962 meeting of the American Philosophical Society. *Amer. J. Psychol.*, 1962, 75(2), 327-328.—At the April 1962 meeting held in Philadelphia the 4th Karl Spencer Lashley Award was made to Philip Bard of Johns Hopkins University.—R. D. Nance.

4065. Boring, Edwin G. (Harvard U.) The 1962 meeting of the National Academy of Sciences. *Amer. J. Psychol.*, 1962, 75(2), 326-327.—The 99th annual meeting was held at the Academy building in Washington, D. C. on April 23-26, 1962. 13 of the 23 members of the Section of Psychology were present. The Daniel Giraud Elliot Medal was presented to Donald R. Griffin of Harvard University for his work on echolocation of bats.—R. D. Nance.

4066. Bray, Charles W. (Smithsonian Inst.) Toward a technology of human behavior for defense use. *Amer. Psychologist*, 1962, 17(8), 527-541.—Conditions faced by defense managers are changing rapidly. "The significant changes for behavioral scientists are the expansions of the military environment into a world of machines and into new social settings. . . . Defense management needs a technology of human behavior based on advances in psychology and the social sciences." 6 programs warranting special attention are separately discussed: human performance, man-machine systems, decision processes in the individual, team functions, adaptation of complex organizations to changing demands, and persuasion and motivation.—S. J. Lachman.

4067. Darley, John G., & Meredith P. Crawford. (American Psychological Ass.) Growth and allocation of resources within the APA. *Amer. Psychologist*, 1962, 17(7), 465-474.—"As an organization of individual members, our first major source of income derives from membership dues." Major sections are: Growth in Income, Expense, and Membership; History of Dues Increases; The Journal Operations; Annual Allocation of Resources; External Grants and Contracts; Additional Operations; and Conclusion. "Just as 1962 represented our first budgeted years of over \$1,000,000 in both income and

expenses, 1963 will see a membership in excess of 20,000."—S. J. Lachman.

4068. Dreger, Ralph Mason. (Jacksonville U.) Proceedings of the eighth Annual Meeting of the Southeastern Psychological Association. *Amer. Psychologist*, 1962, 17(9), 612-617.—Approximately 430 registered at the meeting which was held in Louisville, Kentucky on March 29-31, 1962. "The program consisted of 10 symposia, 78 papers, 1 invited address, and 2 presidential addresses. . . . 1 special report, and 4 special meetings."—S. J. Lachman.

4069. Grice, G. Robert. (U. Illinois) Proceedings of the thirty-fourth Annual Meeting of the Midwestern Psychological Association. *Amer. Psychologist*, 1962, 17(9), 607.—1716 persons registered at this meeting held in Chicago on May 3-5, 1962. "The program consisted of 180 papers, six symposia, and a Psi Chi meeting. I. E. Farber delivered the Presidential Address entitled 'The Things People Say to Themselves.'"—S. J. Lachman.

4070. Harrell, Thomas W. (Stanford U.) Proceedings of the forty-second Annual Meeting of the Western Psychological Association. *Amer. Psychologist*, 1962, 17(9), 597-606.—Approximately 1600 persons registered at the meeting held at San Francisco on April 19-21, 1962. "The program included 185 papers, 5 films, 19 symposia, 3 invited addresses, and the Western Psychological Invitation Addresses by Anatol Rapoport on 'The Prisoner's Dilemma' and B. F. Skinner on 'The Future of Teaching Machines.'" The program of papers and their authors is listed.—S. J. Lachman.

4071. Iverson, Marvin A. (Adelphi Coll.) Proceedings of the thirty-third Annual Meeting of the Eastern Psychological Association. *Amer. Psychologist*, 1962, 17(9), 608-610.—2008 registered at the meeting which was held April 26-28, 1962, in Atlantic City, New Jersey. Summary statements concerning the program and an outline of major items transacted at the Annual Business Session and the Board of Directors Meeting are presented.—S. J. Lachman.

4072. Iverson, Marvin A. (Garden City, N. Y.) Thirty-third Annual Meeting of the Eastern Psychological Association. *Amer. J. Psychol.*, 1962, 75(3), 504-505.—The association met April 26-28, 1962 at the Chalfonte-Haddon Hall in Atlantic City, New Jersey. The 1963 meeting will be held at the Statler-Hilton Hotel in New York City, April 11-13.—R. D. Nance.

4073. Kennedy, John L. (Princeton U.) Fifty-eighth Annual Meeting of the Society of Experimental Psychologists. *Amer. J. Psychol.*, 1962, 75(2), 328.—The meeting was held at the University of Michigan on April 20 and 21, 1962. Members presented reports of research in progress. The Warren Medal for 1962 was awarded to James Olds. The society accepted the invitation of Brown University to meet in Providence in 1963.—R. D. Nance.

4074. Langhorne, M. C. (Trinity Coll.) Proceedings of the first Annual Meeting of the New England Psychological Association. *Amer. Psychol.*, 1962, 17(9), 621-622.—The organizational meeting of the proposed New England Psychological Association was held on the campus of Brandeis Uni-

versity, Waltham, Massachusetts, October 20-21, 1961. The program of papers and participants is presented.—*S. J. Lachman.*

4075. Miller, Wilbur C. (U. Denver) **Thirty-second Annual Meeting of the Rocky Mountain Psychological Association.** *Amer. J. Psychol.*, 1962, 75(3), 505-506.—The meeting was held at the Finlen Hotel in Butte, Montana, on May 10-12, 1962. The 1963 meeting will be held in Cody, Wyoming.—*R. D. Nance.*

4076. Sanua, Victor D. (Yeshiva U.) **Seventh Congress of the Interamerican Society of Psychology.** *Amer. J. Psychol.*, 1962, 75(2), 328-329.—The congress was held in Mexico City from December 19 to 23, 1961. Approximately 650 members and visitors from 11 countries attended. 95 papers were presented. The 8th congress is scheduled for April 2 to 6, 1963, and is to be held at Mar Plata, Argentina.—*R. D. Nance.*

PROFESSIONAL PROBLEMS

4077. Cohen, J. (U. Manchester) **Reflections on the resolution of conflict in international affairs.** In G. Nielson (Ed.), *Proceedings of the XIV International Congress of Applied Psychology. Vol. 1. Psychology and international affairs* (see 37: 4116). Pp. 59-77.—A warning against attempting to psychologize world conflict. Role reversal and international conferences are suggested as ways of understanding others' views.—*B. T. Jensen.*

4078. Crane, William J. (Eastern Illinois U.) **Screening devices for occupational therapy majors.** *Amer. J. occup Ther.*, 1962, 16(3), 131-132.—A large battery of tests were correlated with the criterion of grade-point averages of occupational therapy students at graduation or at the time of leaving the program at Eastern Michigan University. The aim was to distinguish between those who passed or failed in the program. It was found that some 7 tests had high correlations with the criterion and that the Edwards Personal Preference Schedule and Iowa Silent Reading Test combined with the Watson-Glaser Critical Thinking Appraisal were the best combination of predictors.—*M. A. Seidenfeld.*

4079. Hahn, Milton E. (U. California, Los Angeles) **Forgotten people: The normal individual and, in, professional psychology.** *Amer. Psychologist*, 1962, 17(11), 700-705.—Among our badly forgotten men and women are those women who have completed the career of wife and mother, men and women who resign from the military in their forties or early fifties, and men and women who successfully play career roles but now are caught in a professional trap. Psychological practitioners can make a contribution to "normal, mature, self-actualizing people between the ages of 30 and senescence."—*S. J. Lachman.*

4080. Hoch, E. L., & Darley, John G. (American Psychological Ass.) **A case at law.** *Amer. Psychologist*, 1962, 17(9), 623-654.—In a Washington, D. C., trial, the jury was instructed by the judge to disregard evidence presented by psychologists "to the effect that the defendant was suffering from a mental disease or a mental defect." After the defendant was found guilty an appeal was filed and the United States Court of Appeals handed down a 2-to-1

decision reversing the decision of the lower court. In a hearing before the full 9-man Court of Appeals requested by the Government, both the American Psychological Association and the American Psychiatric Association filed briefs. These briefs are presented in their entirety. "The final written opinion in the case was handed down June 7, 1962. It sustains, by a 7-2 vote, the acceptability of testimony by properly qualified psychologists in cases involving the determination and meaning of mental disease or defect as productive of criminal acts."—*S. J. Lachman.*

4081. Kahn, Theodore C. (USAF Hosp., Lackland AFB, Texas) **Evaluation of United States of America psychology by the "four-years-absent" method.** *Amer. Psychologist*, 1962, 17(10), 706-708.—Criticisms are leveled at psychology in the United States: (a) psychology, both as a discipline and as a profession is vague; (b) psychology lacks goals; (c) psychology is fragmented—the specialties are isolated from each other with little effective intercommunication; (d) psychology appears to be angry—the profession lacks harmony; (e) psychology is insecure—we have a status problem; (f) psychologists suffer from inbreeding—their views are often narrow; (g) psychology lacks tradition; (h) psychology has no modern heroes; and (i) psychologists have surrendered—not only do we lack a concept of self, but "we do not seem to seek one within the framework of our profession." Remedies are suggested.—*S. J. Lachman.*

4082. Lehman, H. (Ohio U.) **The creative production rates of present versus past generations of scientists.** *J. Gerontol.*, 1962, 17, 409-417.—Histories of several fields of research were analyzed for age curves with respect to production rates. "... past and present generation scientists have produced more than their proportionate share of high-quality research not later than at ages 30 to 39."—*J. Botwinick.*

4083. Leipold, William D., & James, Robert L. (U. North Dakota) **Characteristics of shows and no-shows in a psychological experiment.** *Psychol. Rep.*, 1962, 11(1), 171-174.—"Thirty-nine Ss (36% of Ss randomly assigned to an experiment) failed to show for a psychological study conducted at the University of North Dakota. ... It was found that male no-shows were more anxious and tended to have less need for social approval. ... Female no-shows were found to have lower earned grade-point averages than shows with no differences between males. The implications of these results were discussed in terms of the biasing effect upon a sample which was originally selected on a random basis."—*B. J. House.*

4084. Levy, Leon H. (Indiana U.) **The skew in clinical psychology.** *Amer. Psychologist*, 1962, 17(5), 244-249.—"The group studied is the 781 psychologists whose dissertations were listed by Rabin ... in his *A Bibliography of Doctoral Dissertations in Clinical Psychology*. ... The entire group produced a total of 2,922 publications during the period studied, with a mean of 3.7 and a median of 1.6. The distribution was extremely skewed with 28.9% of the group having no publications to their credit and another 19.2% having only one publication; 10% of the group accounted for 45% of their output. ... In the language of the day, the particular mixture of

fact and fantasy which we have here appears to be a highly fissionable one . . ."—*S. J. Lachman*.

4085. Mercer, B. E., & Pearson, J. B. (U. Colorado) **The ethics of academic status-striving.** *Sociol. soc. Res.*, 1962, 47(1), 51-56.—There is an academic folklore that status-striving behavior of a sort which interferes with the legitimate functions of higher education exists among some faculty members. A questionnaire study of the attitudes of 423 academic sociologists toward a list of 8 status-striving activities resulted in an "ethicality scale score" for each respondent. The relationship of the score to a number of personal and institutional attributes of the respondent was then subject to chi-square analysis. In general, the respondents indicate a high incidence of status-striving activities on their campuses, and they tend to view such behavior as violations of their personal and professional ethics.—*Journal abstract*.

4086. Murphy, Gardner. (Menninger Found.) **Four conceptions of research in clinical psychology.** *Bull. Menninger Clin.*, 1961, 25(6), 290-295.—Research in clinical psychology has various aims: to enlarge the system of psychology as a science, to draw immediately useful applications, and to broaden and deepen our understandings within a given frame of reference. There is also "the derivation of new meanings . . . from facts which were never sought for or conceptualized but which drop . . . unexpectedly . . . [and become] a pivot on which we swing to a new level of insight."—*W. A. Varvel*.

4087. Murray, H. A. (Harvard U.) **Prospect for psychology.** In G. Nielson (Ed.), *Proceedings of the XIV International Congress of Applied Psychology. Vol. 1. Psychology and international affairs* (see 37: 4116). Pp. 11-32.—Utilizing a fictitious trial setting, Socrates and Aristotle and some "angels" deal with the question as to whether or not psychologists are concerned with irrelevancies while they could be solving formidable problems.—*B. T. Jensen*.

4088. Smith, Ewart E. (Los Angeles Division, Matrix Corp.) **Obtaining subjects for research.** *Amer. Psychologist*, 1962, 17(8), 577-578.—5 sources of Ss which have produced ample data include: (a) United States Employment Service, (b) military reserve units, (c) operational military units, (d) prisons, (e) fire departments. "The research subject problem can be solved by obtaining the help of organizations other than universities. . . . The cooperation of these organizations can best be obtained by establishing a rapport based on an understanding of their needs."—*S. J. Lachman*.

4089. Williamson, E. G. (U. Minnesota) **The counselor as technique.** *Personnel Guid. J.*, 1962, 41(2), 108-111.—The thesis is presented that counselors are in the "influence business" and therefore must struggle with ethical problems, searching for models of character development both for themselves and for their counselees. Desirable characteristics for the counselor to have are suggested.—*S. Kavruck*.

Psychological Personnel

4090. Harper, Roland. (U. Leeds, England) **The psychologists' role in food-acceptance research.** *Food Technol.*, 1962, 16, 70-73.—Ways in which

psychological knowledge has contributed, or potentially could contribute, to food sciences are reviewed. Heretofore main emphasis has been on analysis of sensory qualities in relation to physical properties of foods and on measurements of "hedonic tone"; however, investigation of the sociopsychological aspects of food acceptance would be equally relevant.—*D. R. Peryam*.

4091. Kazmier, Leonard J. **The psychologist as a behavioral scientist in the business school.** *Amer. Psychologist*, 1962, 17(5), 253-254.—There is now a need for entering faculty personnel in business schools "to apply the behavioral science point of view as integrated members of the business faculty, rather than as distinguished visitors from the psychology department." Recent studies critical of business curricula have stressed the importance of the behavioral sciences in the business school curriculum. The "educational and research experiences leading to the doctorate in industrial psychology" gives the industrial psychologist the opportunity to "fill the role of behavioral scientist in the business school."—*S. J. Lachman*.

4092. Krim, Murray. (NYC) **Psychologists and public information.** *Amer. Psychologist*, 1962, 17(10), 712-714.—The 1st peace group, inspired by Otto Klineberg and organized by Stanley Zuckerman in 1961, now called the "Social Scientists for Peace," had as its purpose the application of psychological knowledge to such urgent issues as war hysteria, cessations of nuclear tests, disarmament, and fall-out shelters. Activities of various groups of psychologists concerning such social endeavors are cited. 2 questions, "Should psychologists participate in demonstrations and similar activities?" and "Should psychologists be doing research rather than engaging in social action and public education?" are discussed.—*S. J. Lachman*.

4093. Rasmussen, E. T. (U. Copenhagen) **How can psychologists assist groups in conflict?** In G. Nielson (Ed.), *Proceedings of the XIV International Congress of Applied Psychology. Vol. 1. Psychology and international affairs* (see 37: 4116). Pp. 33-47.—An intermediary committee between nations is proposed to help them understand their interests as illusions. Difficulties such a committee would have and ways of meeting them are described.—*B. T. Jensen*.

4094. Ross, Sherman. (American Psychological Ass.) **The APA international scientist and visiting scientist programs: 1961-62.** *Amer. Psychologist*, 1962, 17(5), 255-258.—The International Scientist Program involves a small number of first rank scientists and their visits to a limited number of American universities. The Program of Visiting Scientists continued for the 2nd year (in 1961-62); visits were arranged to each of the 96 institutions applying. A table listing the colleges and their respective visitors is provided.—*S. J. Lachman*.

4095. Russell, R. W. (Indiana U.) **Can psychologists contribute?** In G. Nielson (Ed.), *Proceedings of the XIV International Congress of Applied Psychology. Vol. 1. Psychology and international affairs* (see 37: 4116). Pp. 48-58.—This article discusses the psychologist as a citizen and as a psychologist and illustrates ways in which he can contribute in each role.—*B. T. Jensen*.

Training in Psychology

4096. Baker, Frank B. (U. Wisconsin) **A computer course for the behavioral scientist.** *Educ. psychol. Measmt.*, 1962, 22(3), 617-621.—"The objectives of the course are to provide the student with a working knowledge of: (a) the specialized terminology used by computer specialists; (b) standard statistical library routines; (c) the characteristics of programming; and (d) the role of computers in research." A listing of the major topics is given with some amplification of the details and rationale for each section of the course.—*W. Coleman.*
4097. Bloch, C. **L'enseignement de groupe, méthode de formation à la psychologie pratique.** [Teaching in a group, training in practical psychology.] *Acta neurol. psychiat. Belg.*, 1962, 63, 279-291.—The author reports on his experience at the Tavistock Clinic in connection with the training of case-work and psychotherapy under the direction of M. Balint.—*V. Sanua.*
4098. Costin, Frank, & Kerr, William D. (U. Illinois) **The effect of an abnormal psychology course on students' attitudes toward mental illness.** *J. educ. Psychol.*, 1962, 53(5), 214-218.—The Opinions about Mental Illness Scale was administered at the beginning and end of the semester to an abnormal psychology class (38 men, 32 women) and to a control class of sociology students (60 men, 67 women). 5 attitudes were measured: Authoritarianism, Unsophisticated Benevolence, Mental Hygiene Ideology, Social Restrictiveness, and Interpersonal Etiology. Analysis of covariance revealed that changes which could be attributed to the psychology course were as follows: (a) women became less authoritarian, (b) men achieving in the upper 50% of the class became less authoritarian and less restrictive than lower achieving men, and (c) men and women decreased their attitude of unsophisticated benevolence and increased their conviction that unhealthy interpersonal relations early in life frequently lead to mental illness.—*Journal abstract.*
4099. De Rivera, Joseph. (Dartmouth Coll.) **Teaching a course in the psychology of international relations.** *Amer. Psychologist*, 1962, 17(10), 695-699.—There are several reasons for teaching psychology courses in international relations: (a) psychology has something new to add to the numerous courses in international relations now being taught. (b) There is now enough significant material to make a full semester course worthwhile. (c) Teaching about war and peace can lead to some interesting research. Major sections are: Psychological Approach to International Relations, Course Material, Research Potential, Organizing Course, and Student Research. The author reports his experiences in teaching this kind of course.—*S. J. Lachman.*
4100. Harlow, Harry F., Miller, James G., & Newcomb, Theodore M. (U. Wisconsin) **Identifying creative talent in psychology.** *Amer. Psychologist*, 1962, 17(10), 679-683.—The "Creative Talents Awards program was initiated by the American Institute for Research." Its purpose "is to identify and encourage original and creative research efforts among young psychologists through awards based on appraisals of the qualities shown in the preparation of doctoral dissertations." Panel judges (eminent psychologists), indicated that their hardest problem was the formulation of suitable criteria; each dissertation abstract and the dissertations themselves were evaluated on 4 9-point scales. "Louis M. Herman was the top award winner of \$1,000." 2 awards of \$500 each were made to Sheldon Lee Freud and to James C. Lingoes. 9 persons selected for honorable mention are named.—*S. J. Lachman.*
4101. Hoffman, Howard S. (Pennsylvania State U.) **The analogue lab: A new kind of teaching device.** *Amer. Psychologist*, 1962, 17(10), 684-694.—"This paper describes an inexpensive device which can be used to supplement the training of students in the methods of the behavioral scientist. In essence, the device duplicates for the student many of the problems he would face if given access to a well-equipped laboratory for the study of the conditioned response. It does so by generating data which duplicate, in many respects, that which has or could be derived from experiments with living organisms. The major portion of this paper is concerned with illustrating the range and variety of research experience which the device makes available to the student." A list of components for the analogue lab are presented.—*S. J. Lachman.*
4102. Johnson, Paul E. (Boston U.) **Clinical pastoral training at the crossroads.** *J. pastoral Care*, 1962, 16(2), 65-71.—An historical survey of clinical pastoral training [CPT] leads the author to recommend the pursual of 3 goals: (a) to incorporate CPT in theological education by extending faculty discussion and participation and by integrating clinical experience with academic and professional learning; (b) to experiment with forms and content of education for the pastoral ministry by integrating CPT with field work, pastoral care, religious education, social ethics, and theology; and (c) to enlarge the concern and participation of entire faculties in the ministry of pastoral care in the school, the church, and the community.—*O. Strunk, Jr.*
4103. Moss, C. Scott; Logan, James C., & Lynch, Dorothy. (National Inst. Mental Health, San Francisco) **Present status of psychological research and training in hypnosis.** *Amer. Psychologist*, 1962, 17(8), 542-549.—Anonymous questionnaires on training and research in hypnosis were returned by 54 of 55 psychology department chairmen with approved clinical psychology training programs and 39 of 85 American Medical Association approved medical schools, 8 psychology departments and 2 medical schools have courses in hypnosis. Unless the "psychological profession is more active in protecting its rights to research and clinical use of a methodology which is basically psychological, it may find itself legally excluded from the field."—*S. J. Lachman.*
4104. Nance, R. Dale. (U. Wisconsin) **Current practices in teaching history of psychology.** *Amer. Psychologist*, 1962, 17(5), 250-252.—150 returns from departments of psychology in the 168 American schools listed in the December 1960 issue of the *American Psychologist* indicate that most schools (130 of 150) teach a history course. "In a large majority of the departments, History is treated as a three-credit, one-semester course." The textbook most commonly used (75%) was the one by Boring. Others used were Murphy, Woodworth, Chaplin and Krawiek, Heidebreder, Dennis, and Wolman.—*S. J. Lachman.*

4105. Rosenzweig, Saul; Bunch, Marion E., & Stern, John A. (Washington U., St. Louis) **Operation Babel: A survey of the effectiveness of the foreign language requirements for the PhD degree in psychology.** *Amer. Psychologist*, 1962, 17(5), 237-243.—681 usable questionnaire returns were received from PhD psychologist respondents. Since completing the language requirements 65% or almost $\frac{2}{3}$ of the cases had not read a single item (article or book). "The median number of items read in French, German, Spanish, and Russian was 0." 70% made no oral use of the languages. There is an "extreme incongruity between input and output" in the study of foreign languages at the PhD level. Alternative solutions are proposed.—S. J. Lachman.

4106. Ross, Sherman. (American Psychological Ass.) **APA approved doctoral programs in clinical and in counseling psychology, 1962.** *Amer. Psychologist*, 1962, 17(7), 501-502.—"On recommendation of the Committee on Evaluation, the Education and Training Board, with the concurrence of the Board of Directors of the American Psychological Association has approved the doctoral programs in clinical psychology and in counseling psychology that are conducted by the institutions listed." 60 institutions are in the clinical psychology list; 8 of these have received interim approval while the others have full approval. 25 institutions are in the counseling psychology list; 2 of these have interim approval.—S. J. Lachman.

4107. Ross, Sherman. (American Psychological Ass.) **Internships for doctoral training in clinical psychology approved by the American Psychological Association.** *Amer. Psychologist*, 1962, 17(8), 571-572.—"On the recommendation of the Committee on Evaluation, the Educational Training Board with the concurrence of the Board of Directors of the American Psychological Association has approved for doctoral training in clinical psychology the internships offered by the agencies listed." Each internship facility is designated by a letter to indicate which of 3 types of internship it provides.—S. J. Lachman.

PSYCHOLOGY ABROAD

4108. Anon. **Ob issledovaniakh po probleme "fiziologii."** [On investigations on the problem "physiology."] *Vestn. Akad. Nauk SSSR*, 1962, 32(5), 110-111.—In a decree of the Presidium of the USSR Academy of Sciences it is noted that, while progress has taken place in Soviet physiology during recent years, real deficiencies continue in a number of problem areas. There must be, hereafter, "wide application of contemporary methods of research," and there must be a "fundamental improvement in the equipping of physiological institutions with the latest apparatus." There should be "integrated research involving mathematicians and physicists. Account should be taken of the problems and concepts of biological and medical cybernetics."—I. D. London.

4109. Brehaut, Willard; & Jackson, Robert W. B. (U. Toronto, Ontario, Canada) **Educational research in countries other than the United States: Canada.** *Rev. educ. Res.*, 1962, 32(3), 234-246.—Education is a provincial responsibility in Canada. For this reason, there is not 1 Canadian system of education but 11. Practically all university colleges of education are centers of research activities.

In addition, several universities serve as training grounds for research workers. Contributors have tended to avoid doing fragmentary research but instead have undertaken coordinated studies of major educational problems. The 1st of these types is the longitudinal study of students in an effort to find out the extent of wastage of student ability at high school and university levels. The 2nd type of significant research is related to administration and supervision of education in Canadian school systems. (65 ref.)—F. Goldsmith.

4110. Bronfenbrenner, Urie. (Cornell U.) **Soviet methods of character education: Some implications for research.** *Amer. Psychologist*, 1962, 17(8), 550-564.—"Communist authorities view as the primary objective of education not the learning of subject matter but the development of what they call 'socialist morality.'" The popularity and influence of Anton Semyonovich Makarenko "are roughly comparable to those of Dr. Spock in the United States, but his primary concern is not with the child's physical health but with his moral upbringing." Makarenko's theories and techniques became widely adopted throughout the USSR and now constitute the central core of Soviet educational practice. Major sections are: The Work and Ideas of A. S. Makarenko, Socialization in the School Collective, Guiding Principles of the Soviet Approach to Character Training, The Family versus the Collective, Group Incentives, and Group Criticism and Self-Criticism.—S. J. Lachman.

4111. Glass, Y. **Social psychological research in industry: An appraisal of problems and techniques.** *Psychol. Afr.*, 1962, 9, 133-147.—The problems encountered in planning, organizing, and executing industrial research among African workers is described and examined. Most of the research has been done by the National Institute for Personnel Research. The problems are discussed in the categories: sociocultural, industrial, technical, and methodological. Examples are given.—J. L. Walker.

4112. Grosfeld, J. A. M. (Catholic U., Nijmegen, Netherlands) **Some trends in European test research.** *Gauein*, 1961, 11(1), 48-62.—Research institutes in different countries were visited to observe methods for improving selection procedures and prediction of a successful career. Sweden's realistic attitude towards techniques of evaluating personality includes the use of an electronic "distributor" machine. Reliability studies of the machine records showed very good results ($r_{tt} = .90$ or more). Germany, Great Britain, and France share the same dislike (less pronounced in France) of tests, preferring group- and interview-techniques which are supported by excellent research in France but almost none in the other countries. New German methods include the use of graphology (correlation .44), the Pauli Kraepelin Test (correlation .40) and the "Task Organization Test." (20 ref.)—J. A. Lucker.

4113. Hotyat, Fernand, & Mialaret, Gaston. (Higher Educational Inst., Hainaut, Morlanwelz, Belgium) **Educational research in countries other than the United States: French-speaking countries—Belgium, France, and Switzerland.** *Rev. educ. Res.*, 1962, 32(3), 298-307.—One of the most striking characteristics of the development of and research into education in the French-speaking countries is the diversification of professional backgrounds

of individuals who are actively participating. The disciplines of medicine, sociology, and psychology have displayed a keen interest in education. Research which follows scientific principles is gradually gaining ground in the search for solutions to problems. Several research centers have been joining together to share their experience. L'Association Internationale de Pédagogie Expérimentale de la Langue Française was founded in 1958 with the purpose of further coordinating activities and promoting the advance of educational research. (35 ref.)—*F. Goldsmith.*

4114. Hudson, W. **National Institute for Personnel Research.** *Psychol. Afr.*, 1962, 9, 13-21.—The research in the areas of labor selection and utilization, test construction and experimental design, and experimental services performed by the institute for the years indicated is summarized. The history of the institute together with photographs are presented.—*J. L. Walker.*

4115. Muzić, Vladimir. (Inst. Education, U. Zagreb, Yugoslavia) **Educational research in countries other than the United States: Yugoslavia.** *Rev. educ. Res.*, 1962, 32(3), 332-343.—Although subjective judgment still plays a large part in decisions about most practical educational problems in Yugoslavia, research is assuming an increasingly important role. However, there are 3 major problems that remain to be solved: (a) the coordination of the plans and activities of the different research agencies, so as to avoid a fragmentary approach and effect a balanced and comprehensive research program; (b) the provision of adequate research facilities and equipment; and (c) the provision of an adequate number of specialists in educational research. Despite the magnitude of these problems, the increase in educational research evidenced by teachers and the official agencies gives reason for optimism concerning their ultimate solution. (82 ref.)—*F. Goldsmith.*

4116. Nielson, G. (Ed.) **Proceedings of the XIV International Congress of Applied Psychology. Vol. 1. Psychology and international affairs.** Copenhagen, Denmark: Munksgaard, 1962. 132 p.—(See 37: 4077, 4087, 4093, 4095, 4790, 4796)—*B. T. Jensen.*

4117. Nielson, G. (Ed.) **Proceedings of the XIV International Congress of Applied Psychology. Vol. 2. Personality research.** Copenhagen, Denmark: Munksgaard, 1962. 229 p.—(See 37: 4787, 4864, 4925, 4932, 4958, 4977, 4998, 5040, 5062, 5069, 5436)—*B. T. Jensen.*

4118. Nielson, G. (Ed.) **Proceedings of the XIV International Congress of Applied Psychology. Vol. 3. Child and education.** Copenhagen, Denmark: Munksgaard, 1962. 197 p.—(See 37: 4677, 4691, 4717, 4730, 4733, 4746, 4754, 4973, 5547, 5552, 5569, 5604, 5668)—*B. T. Jensen.*

4119. Nielson, G. (Ed.) **Proceedings of the XIV International Congress of Applied Psychology. Vol. 4. Clinical psychology.** Copenhagen, Denmark: Munksgaard, 1962. 211 p.—(See 37: 4414, 4708, 4854, 4865, 5138, 5173, 5309, 5310, 5311, 5312, 5386, 5497)—*B. T. Jensen.*

4120. Nielson, G. (Ed.) **Proceedings of the XIV International Congress of Applied Psychol-**

ogy. Vol. 5. Industrial and business psychology. Copenhagen, Denmark: Munksgaard, 1962. 229 p.—(See 37: 4208, 4961, 5650, 5691, 5694, 5695, 5698, 5791, 5804, 5812, 5813, 5819, 5842, 5859, 5861, 5868)—*B. T. Jensen.*

4121. Parkyn, George W. (New Zealand Council Educational Research, Wellington, New Zealand) **Educational research in countries other than the United States: New Zealand.** *Rev. educ. Res.*, 1962, 32(3), 225-233.—Educational research in New Zealand is supported by, and for the most part carried out under the auspices of, 3 different kinds of educational institutions: the universities, the New Zealand Department of Education, and the New Zealand Council for Educational Research. The somewhat unusual administrative structure of New Zealand primary education, in which much of the control of the schools is placed in the hands of district boards of education that do not levy their own education taxes but receive their funds from the central government, was the subject of a thorough analysis with a view to solving some of the problems of centralized vs. decentralized control. (78 ref.)—*F. Goldsmith.*

4122. Radford, William C. (Australian Council Educational Research, Melbourne, Australia) **Educational research in countries other than the United States: Australia.** *Rev. educ. Res.*, 1962, 32(3), 217-224.—There has been a noticeable increase since 1956 in published research in Australia. It is impossible to refer to all published materials, but those cited in the bibliography are representative of the work done. A considerable volume of research was undertaken on enrollments and on success and failure of university students. At the same time that the student and his approach to his work were receiving attention, some universities were giving consideration to means of improving the quality and type of teaching. Sociologically oriented research has generally been exact and careful, and it has revealed many important facts and problems. (43 ref.)—*F. Goldsmith.*

4123. Roca, Pablo. (Pan American Union, Washington, D. C.) **Educational research in countries other than the United States: An overview of educational research in Latin America.** *Rev. educ. Res.*, 1962, 32(3), 247-249.—Latin America is a term used for convenience to describe an area covering 20 independent nations located in North, Central, and South America, in which 3 different languages are spoken. In an area with so many basic educational problems, research in education might be looked at as an item of luxury or as an academic exercise to which only a few curious scholars devote part of their time. However, since the area covered by the term Latin America includes a large variety of stages of educational development, the field of educational research reflects the same levels of development.—*F. Goldsmith.*

4124. Smilansky, Moshe. (Henrietta Szold Inst., Jerusalem, Israel) **Educational research in countries other than the United States: Israel.** *Rev. educ. Res.*, 1962, 32(3), 280-293.—In Israel some success has been achieved in combating research and experimentation with practical measures designed to improve the education of children. The work is not free from handicaps. Adequately qualified workers are hard to find, new tools of evaluation have to be

evolved, funds are never adequate for the magnitude of the task. However, all these handicaps are natural and inevitable in a young country with limited resources. It is still too early to evaluate the work because it is still in its beginnings. However, one achievement is already evident: a growing appreciation for the contribution that educational research and experimentation can make toward an improvement in methods of child care and education. (20 ref.)—*F. Goldsmith.*

4125. Von Friedeberg, Ludwig. (Inst. Social Research, Frankfurt, West Germany) **Educational research in countries other than the United States: West Germany.** *Rev. educ. Res.*, 1962, 32 (3), 308-319.—So far as scientific questions of content and pedagogical questions of instructional methods are concerned, no other subject taught in the high schools is so deeply influenced by social factors as political education in the school subjects of civics, government, and history. During the past 50 years, teachers in Germany have had to make their pupils familiar with no fewer than 5 different political systems, only one of which (constitutional monarchy) could claim the advantage of possessing long-established traditions. Today, as a result of this checkered history and its dire consequences, 2 different kinds of political education are imparted in either part of divided Germany: (a) social education organized on a representative and democratic basis for pupils in the Federal Republic, and (b) dialectic materialism with its Eastern European stamp, for pupils in the East German Democratic Republic.—*F. Goldsmith.*

4126. Wall, W. D., & Miller, K. M. (National Found. Educational Research England & Wales, London) **Educational research in countries other than the United States: The United Kingdom.** *Rev. educ. Res.*, 1962, 32(3), 354-360.—Research in education in the United Kingdom has slowly become more coherent, less dependent upon isolated workers, more interdisciplinary, and more long-term in its objectives than it was during previous years. There is a marked tendency for a few university departments of education to concentrate their work for higher degrees around a principal theme or themes in such a way as to develop a significant body of related studies. Outstanding examples of this orientation include the work on thought processes and on child development at Birmingham, the broadly conceived measurement surveys at Manchester, and the systematic inquiries into Piaget's hypotheses at Leeds. (43 ref.)—*F. Goldsmith.*

4127. Wingard, P. G. (Makerere University Coll., Kampala, Uganda) **Educational research in countries other than the United States: East Africa.** *Rev. educ. Res.*, 1962, 32(3), 293-297.—Education in the East African nations—Kenya, Tanganyika, Uganda, and Zanzibar—has naturally been greatly influenced by British practices and thinking in education. Considerable efforts have been made to adapt the system and the instruction to local needs, but such efforts cannot as yet be based on the findings of fundamental research. Most of the basic information that is available in Europe and America is lacking in East Africa.—*F. Goldsmith.*

4128. Yoda, Arata, & Hidano, Tadashi. (U. Tokyo, Japan) **Educational research in countries other than the United States: Japan.** *Rev. educ.*

Res., 1962, 32(3), 265-279.—Studies on the problems and dynamics of the class as a group have been strongly influenced in Japan by the group dynamics movement in the United States. Recent studies on the evaluation of achievement have focused on such problems as the analysis of the environmental conditions that influence scholastic achievement, including physical isolation and educational upheaval resulting from typhoon damage. There seem to be 2 main trends in the area of personality tests and projective techniques at the present time: (a) the construction and standardization of new tests for the Japanese population and (b) the application of tests developed in the United States. With the rapid increase in the number of television sets in recent years, many research agencies have turned their attention to the influence of this mass medium on Japan's younger generation. (129 ref.)—*F. Goldsmith.*

EXPERIMENTAL PSYCHOLOGY

4129. Crowder, William F. (U. Mississippi) **A simplified constant-current shocking circuit.** *Amer. J. Psychol.*, 1962, 75(2), 306-307.—This circuit provides the high degree of current regulation yielded by electronic methods as well as the economy and convenience of the series resistance method. It requires alternating current. Punishment for locomotion by the S should be minimized.—*R. D. Nance.*

PSYCHOPHYSICS

4130. Braunstein, Myron L. (Cornell Aeronautical Lab.) **An automatic apparatus for the continuous method of limits.** *Amer. J. Psychol.*, 1962, 75(2), 309.—A device to obtain threshold measurements when they must be determined quickly. After S signals that he perceives a difference, stimulus-intensity continues to change in the same direction for a brief interval, varied from trial to trial in a pseudo-random manner. Direction of the change is then reversed. This alternation is continued as long as desired. The method assures independence of successive determinations and minimizes adaptation. Apparatus includes a motor driven cam in which 3 irregularly spaced grooves are cut. These activate a microswitch which activates relays controlling direction of change of stimulus intensity. Reliable brightness-difference thresholds have been determined in 90 sec. while S was exposed to various levels of acceleration.—*R. D. Nance.*

4131. Cornsweet, Tom N. (U. California, Berkeley) **The staircase method in psychophysics.** *Amer. J. Psychol.*, 1962, 75(3), 485-491.—The author illustrates the use of the method, discusses relative merits and demerits, and describes a modification which overcomes certain of the disadvantages. The change in procedure involves running 3 series of staircased stimuli concurrently, according to a predetermined randomized sequence.—*R. D. Nance.*

4132. Parducci, Allen, & Marshall, Louise M. (U. California, Los Angeles) **Assimilation vs. contrast in the anchoring of perceptual judgments of weight.** *J. exp. Psychol.*, 1962, 63(5), 426-437.—"A successful replication was described for a recent demonstration of assimilation, rather than the usual contrast, in the anchoring of lifted weights. This assimilation was interpreted as a special case of the

central-tendency effect, with the anchor serving as the standard for comparative judgments. . . . While it was necessary to invoke self-anchoring to explain assimilation to an unlabeled stimulus, this permitted reduction of all cases of assimilation to simple perceptual contrast. The analysis suggested that various procedures for absolute and comparative judgment are distinguished primarily on the basis of the nature and degree of specification of the rules for judgment."—*J. Arbit.*

4133. Sorkin, Robert D. (U. Michigan) Extension of the theory of signal detectability to matching procedures in psychoacoustics. *J. Acoust. Soc. Amer.*, 1962, 34(11), 1745-1751.—The theory of signal detectability is used to analyze experiments where the O's task is to state, after 2 signal presentations, whether the signals were the same or different. A model is suggested for predicting performance in auditory "matching" tasks using data from detection and discrimination experiments. 3 experiments are discussed which lend support to the model's application.—*A. M. Small, Jr.*

4134. Stevens, S. S. (Harvard U.) The quantification of sensation. *Daedalus*, 1959, 88(4), 606-621.—Evidence is presented that prothetic sensory continua obey a power law so that the magnitude of sensation grows as a power function of the stimulus magnitude. The implication of this law is that equal stimulus ratios produce equal subjective ratios. For example, no matter at what level of energy one begins, a ninefold increase in the energy of light doubles its apparent brightness. Several experiments designed to test this law are discussed.—*K. E. Davis.*

4135. Weintraub, D. J., & Hake, H. W. (U. Illinois) Visual discrimination: An interpretation in terms of detectability theory. *J. Opt. Soc. Amer.*, 1962, 52(10), 1179-1184.—Geometric squares, and rectangles (squares vertically elongated by 2%), were presented singly in a random sequence to 3 observers. By using the detectability-model parameter d' as a measure, average discriminability was found to be 1.32. 2-, 3-, and 4-category response scales were shown to give equivalent discriminability data. Discriminability was not significantly affected by the inclusion of an extraneous stimulus (a square vertically elongated either 1% or 3%) interspersed randomly in the square-rectangle sequence without the observers' knowledge. The data were interpreted as a favorable empirical test of detectability-theory assumptions applied to a visual discrimination task.—*Journal abstract.*

PERCEPTION

4136. Ammons, C. H., & Ammons, R. B. (Montana State U.) Perception bibliography: II. Baldwin's dictionary through 1882. *Percept. mot. Skills*, 1962, 15(1), 259-262.—One of a continuing series of sequential unannotated bibliographies.—*W. H. Guertin.*

4137. Arana, L., & Sokolov, E. N. (Moscow State U., USSR) Stokhasticheskaia teoriia vospriiatiia: Soobshchenie I. Vospriatie elementarnykh izobrazhenii, kharakterizuiushchikhsia ravnoi veroiatnost'iu poiavleniia. [The stochastic theory of perception: Communication I. Perception of elementary figures characterized by equal probability of occurrence.] *Dokl. Akad. Pedag. Nauk RSFSR*, 1961, No. 4, 61-63.—4 blindfolded Ss were instructed

to localize checkers on a square board of 25 equal cells separated by elevated borders. In Series I the perceptual figure consisted of one checker which would appear with equal probability on all the 25 cells. It was found that under these conditions both the searching plan and the RT remained unchanged throughout the trials.—*A. Cuk.*

4138. Arana, L., & Sokolov, E. N. (Moscow State U., USSR) Stokhasticheskaia teoriia vospriiatiia: Soobshchenie II. Vospriatie elementarnykh izobrazhenii, kharakterizuiushchikhsia razlichnoi veroiatnost'iu poiavleniia. [The stochastic theory of perception: Communication II. Perception of elementary figures characterized by different probability of occurrence.] *Dokl. Akad. Pedag. Nauk RSFSR*, 1961, No. 4, 65-69.—In Series II the checker was presented to Ss in the same cell. The probability in this case was varying: it was of $\frac{1}{25}$ before the 1st trial, of $\frac{2}{25}$ before the 2nd trial, etc. Under these conditions, the perceptual process was rapidly simplified (both the plan of search and the RT). The following generalization was drawn: "perceptual time becomes minimal when the probability calculated from a limited number of choices equals unity."—*A. Cuk.*

4139. Arana, L., & Sokolov, E. N. (Moscow State U.) Stokhasticheskaia teoriia vospriiatiia: Soobshchenie III. Sokrashchenie vospriiatiia izobrazhenii, sostoiashchikh iz neskol'kikh tochek. [The stochastic theory of perception: Communication III. A reduction in the perception of figures consisting of several points.] *Dokl. Akad. Pedag. Nauk RSFSR*, 1961, No. 5, 85-88.—2 new conditions were used. Ss were asked to first identify one checker placed in the different cells and occurring with equal probability, and then to identify a complex figure of 3 checkers occurring in 3 different places. 2 conclusions were drawn: (a) computation of probabilities takes into account not isolated elements but those which are specially grouped together and (b) a complex figure can be perceived just by touching one of the elements provided the elements form a system.—*A. Cuk.*

4140. Arana, L., & Sokolov, E. N. (Moscow State U., USSR) Stokhasticheskaia teoriia vospriiatiia: Soobshchenie IV. Osiazatel'noe vospriatie bukvennykh izobrazhenii. [The stochastic theory of perception: Communication IV. The tactile perception of letter figures.] *Dokl. Akad. Pedag. Nauk RSFSR*, 1961, No. 6, 61-65.—The experiment was made more complex by having the Ss recognize by touch, letters of the Russian alphabet made up of checkers. The probability of occurrence of each letter was the same. It was found that in order to identify the letters it was not necessary to touch all the letter's but just the key points.—*A. Cuk.*

4141. Arana, L., & Sokolov, E. N. (Moscow State U., USSR) Stokhasticheskaia teoriia vospriiatiia. Soobshchenie V. Osiazatel'noe uznavanie neizvestnykh slozhnykh izobrazhenii. [The stochastic theory of perception. Communication V. Tactile recognition of unknown complex figures.] *Dokl. Akad. Pedag. Nauk RSFSR*, 1962, 1, 71-72.—When Ss were taught to reproduce nonsense figures made of checkers, it was found that the speed and the accuracy of their responses depended upon the probability of occurrence of certain combinations and upon the mutual disposition of elements.—*A. Cuk.*

4142. Baker, Robert A., Ware, J. Roger, & Sipowicz, Raymond R. (USA Armor Human Research Unit, Fort Knox) **Vigilance: A comparison in auditory, visual, and combined audio-visual tasks.** *Canad. J. Psychol.*, 1962, 16(3), 192-198.—Ss monitored brief interruptions of a continuously presented sound, light source, or both, for a 3-hour period. The differences between the group given simultaneous auditory and visual signals and the 2 control groups were not significant. There was no evidence of intersensory interaction or arousal effects.—R. S. Davidson.

4143. Beach, L. R. **A study of inference behavior.** *USN Sch. Aviat. Med. res. Rep.*, 1962, Proj. MR005.13-5001, Subtask 12, Rep. No. 2, ii, 44 p.—This report presents and tests a theory of how Ss use probabilistic cues in order to make inferences about objects. The experimental results indicated that Ss can use the cues and that, within limits, the theory can predict their responses. These results were interpreted as sufficient to warrant further development of the theory.—USN SAM.

4144. Fisher, Gerald H. (U. Durham, England) **Phenomenal causality in conditions of intrasensory and intersensory stimulation.** *Amer. J. Psychol.*, 1962, 75(2), 321-323.—If a visual stimulus is brought toward another which moves away on apparent impact, S describes the 2nd stimulus as in some way set into motion by the 1st. This phenomenon has been interpreted as a basic element of perception. It should follow that this experience is also available in nonvisual senses which handle spatial information and that it should be evident in "intersensory" conditions. Experiments were conducted with 51 naive Ss in both "intrasensory" and "intersensory" conditions. 46 Ss made a causal response. Once a causal response was made it was not changed. The findings appear to support the presence of a central integrating system.—R. D. Nance.

4145. Kelm, H. (Saskatchewan Hosp., Weyburn) **Consistency of successive time estimates during positive feed-back.** *Percept. mot. Skills*, 1962, 15(1), 216.—Repeat runs of Llewellyn-Thomas' method (positive feed-back) of studying time estimation gave consistent results. Furthermore, since this technique seems to amplify S's error, it may be valuable in studying the effects of certain drugs and psychiatric disorders.—W. H. Guertin.

4146. Levialdi, Andrea. (U. Buenos Aires, Argentina) **A physical model of perception as an integrating process.** *Amer. J. Psychol.*, 1962, 75(2), 325-326.—"Information" is the body of signals that must be transmitted and received to complete a particular process. If any signal less intense than the background noise is cut out, information will be affected. Any such signal when integrated over a sufficiently long period gives a detectable result greater than zero. It would be important to be able to state that even some of the subliminal signals are essential "since any stimulus acts on living cells in a different manner according to whether it is preceded by another stimulus."—R. D. Nance.

4147. Mooney, Craig M. **Perception as related to military problems.** In Frank Geldard (Ed.), *Defence psychology* (see 37: 4053). Pp. 260-274.—A "brief and obviously incomplete sketch of perceptual needs and possibilities in the military field." The

problems pointed up "are not peculiar to military life except, perhaps, in being especially urgent there, and, therefore, especially interesting to military psychologists."—G. H. Mowbray.

4148. Rabinovich, P. L. (Moscow, USSR) **Znachenie tempa afferentnoi stimulatsii dlia urovnia funktsional'noi podvizhnosti kory golovnogo mozga.** [Significance of the rate of afferent stimulation for the level of the functional mobility of the cortex.] *Zh. vyssh. nervn. Deiatel.*, 1962, 12(1), 40-43.—Adult Ss were used (age 20-22). The index of the functional mobility of the cerebral cortex was determined by a method defining the maximum rhythm of colored light stimuli reproduced by the Ss. Proprio- and interoceptive stimuli arising from walking at a rapid and slow pace (120 and 60 steps per minute) were used as the source of afferent stimuli. The index of functional mobility was established before and after the walking exercise. It was found that the level of cortical functional mobility depends upon the rate of afferent stimulation: the rapid stimulation accounts for its increase, the slow stimulation for its decrease.—A. Cuk.

4149. Shevarëv, P. A. (Ed.) **Vospriiatie i myshlenie.** [Perception and thinking.] *Izv. Akad. Pedag. Nauk RSFSR*, 1962, No. 120, 118 p.—These transactions of the Institute of Psychology present the results of research on the "structure of perception." Included are studies on (a) reaction time as an indicator of perceptual structure, (b) role of verbal instructions in perception, (c) conditions determining perceptual structure, (d) dependence of perceptual structure on individual differences, and (e) perception of deviation of lines from given inclinations. There is also included a study on the psychology of deductive reasoning.—I. D. London.

4150. Vinoda, K. S., & Govindaswamy, M. V. **Sensory awareness to significance.** *Pratibha*, 1959, 2(1), 100-106.—Perception depends on both subjective factors (e.g., motivation, interest, set, habits, values) and objective factors (e.g., intensity of the stimulus, novelty of the stimulus, frequency of its occurrence, size of the stimulus). The various implicit clues in depth perception are: interposition, size and linear perspective, serial perspective, light and shade, movement, and fixation. These are certain proprioceptive clues arising from contractions and tensions of the eye muscles (convergence and accommodation) and rational disparity. But ultimately "it is the mind of man that matters in perception and not the external nature."—U. Pareek.

4151. Wright, Benjamin. (U. Chicago) **The influence of hue, lightness, and saturation on apparent warmth and weight.** *Amer. J. Psychol.*, 1962, 75(2), 232-241.—Belief that color can impart effects such as apparent warmth and weight is ancient and widespread. Most previous studies on this have failed to deal explicitly and successfully with the 3 basic perceptual dimensions of color or have confused the different modes of perception. The present study corrects some of the weaknesses of earlier ones. Ss were middle and lower class men and women living in urban West Germany in 1957. Each judged a 3-in. square of dull finish surface color in daylight against a neutral background. Judgments of warmth and weight were expressed on an Osgood semantic differential. 3569 people participated. Ages ranged

from 16 to 65. There is a well-defined hue-effect on apparent warmth, independent of lightness or saturation. The effects of lightness and saturation on apparent warmth are less definitive than the effect of hue. There is a well-defined effect of lightness on apparent weight. The effect of saturation needs further investigation.—R. D. Nance.

Illusions

4152. Carpenter, Malcolm Scott; O'Keefe, John Aloysius, III, & Dunkelmann, Lawrence. (Manned Spacecraft Cent., Houston, Tex.) Visual observations of nightglow from manned spacecraft. *Science*, 1962, 138(Whole No. 3544), 978-980.—The luminous band around the horizon noted by J. Glenn in the first United States manned orbital flight is attributable to airglow. Dip-of-the-horizon measurements on the star γ Urase Majoris showed that the band is centered at an elevation of 91 kilometers or somewhat higher. The edge-on brightness of the airglow layer was 6×10^{-7} candles per square centimeter.—*Journal abstract*.

4153. Meyer, Max F. (Springfield, Va.) New illusions of pitch. *Amer. J. Psychol.*, 1962, 75(2), 323-324.—Auditory illusions involving pitch are as yet totally undescribed (excluding pathological instances). 2 cases are described. 3 concentric circles of equally distributed holes were bored in a 16-in. masonite disk. In 1 case, a blast of air is blown alternately at the inner and outer circles. In the other case, the disk is spun on a motor, and air is blown into the 3 circles. The brain tends to convey to consciousness adjusted and musical intervals as substitutes for unmusical ones.—R. D. Nance.

4154. Mountjoy, Paul T. (Denison U.) Decrement to the Müller-Lyer as a function of visual field size. *J. scient. Lab. Denison U.*, 1961, 45, 149-154.—The size of the visual field was changed between experimental sessions in a counter-balanced manner for 2 groups of 18 Ss. Since the size of the field had no effect upon intrasession decrement to the illusion, or upon intersession recovery, it was concluded that this variable was not responsible for the contradictory results of Köhler and the present investigator. The results were discussed in relation to Madison's mathematical model for figural after-effects.—*Author abstract*.

4155. Rock, Irvin, & Ebenholtz, Sheldon. (Yeshiva U.) Stroboscopic movement based on change of phenomenal rather than retinal location. *Amer. J. Psychol.*, 1962, 75(2), 193-207.—Despite countless investigations, stroboscopic movement remains unexplained. Gestaltists have hypothesized that the experience is based on some central physiological interaction which takes place in the cortex between the loci of excitation yielded by the light sources. Others have tried to show that the interaction is retinal or subcortical. 2 experiments were carried out. Under conditions where phenomenal separateness was experienced with only 1 region of the retina stimulated stroboscopic movement was experienced. When separate retinal points were stimulated but the source experienced in only 1 locality, movement was not experienced. Findings are consistent with the fact that motion is experienced whenever above-threshold change in phenomenal location of the source takes place. It is implied that neural

interaction between 2 loci of excitation cannot be a general explanation of stroboscopic movement.—R. D. Nance.

4156. Royce, Joseph R., Stayton, William R., & Kinkade, Robert G. (U. Alberta) Experimental reduction of autokinetic movement. *Amer. J. Psychol.*, 1962, 75(2), 221-231.—Experiment I determined the effect of various patterns of lighted dots on autokinetic movement. Experiments II and III determined the effects on autokinetic movement of (a) varying the radius of a concentric circle of light about a central dot and (b) varying the intensities of both the dot and the circle. 10, 18, and 103 Ss, respectively, were used in the 3 experiments. Results confirm the hypothesis that autokinetic movement will be reduced when the light is provided with a frame of reference. The more continuous the frame of reference, the greater the reduction effect. "In particular, the extent of perceived movement decreases (a) as the number of lights in a multiple-light configuration increases, (b) in the presence of a $\frac{1}{4}$ -in. wide concentric band of light, regardless of radius, and (c) as the light-intensity of the concentric circle increases."—R. D. Nance.

4157. Sugarman, L. P. Factors influencing apparent movement thresholds. *Psychol. Afr.*, 1962, 9, 204-215.—The factors influencing apparent movement (phi phenomenon) are reviewed and discussed: the apparatus and procedures are important determinants; apparent movement thresholds are unreliable; thresholds occurring at the beginning were more readily observed than those at the end; stimulus exposure duration and auditory stimulation did not affect thresholds; flash frequencies at which thresholds occur increase with age; alpha frequency showed no relationship with flash frequencies at which thresholds occur; and the observed sex differences are believed to be due to greater cerebral activation in females, "possibly caused by tension and anxiety associated with both biochemical and cultural factors." (31 ref.)—J. L. Walker.

4158. Vinoda, K. S. Analysis of factors contributing to illusions involving straight lines. *Pratibha*, 1959, 2(2), 77-80.—A project is briefly mentioned involving preparation of instruments to study illusions. 3 series of slides were prepared—those with varying distance between lines, those with variable lines enclosed in different frames, and those of filled figures. Other materials, e.g., open frames, horizontal vertical illusion figures, and Muller-Lyer illusion figures, are being prepared.—U. Pareek.

Aftereffects

4159. Bakan, Paul; Myers, Louis B., & Schoonard, James. (Michigan State U.) Kinesthetic aftereffects and length of inspection-period. *Amer. J. Psychol.*, 1962, 75(3), 457-461.—Most previous studies on temporal aspects of figural aftereffects have been concerned with vision. Increases in kinesthetic aftereffect as a function of length of a single inspection-period have not been studied. In the present study, Ss were 80 undergraduate volunteers, divided into 1 control and 3 experimental groups. Apparatus consisted of 3 long wooden blocks mounted on tables. Inspection-periods were 0, 10, 30, or 60 seconds. Size of the aftereffect immediately after

an inspection-period is a monotonic increasing function of length of the period.—*R. D. Nance.*

4160. Bakan, Paul, & Thompson, Richard. (Michigan State U.) The effect of pre-inspection control measures on the size of kinesthetic after-effects. *Amer. J. Psychol.*, 1962, 75(2), 302-303.—It has been implicitly assumed that pre-inspection, control judgments do not themselves influence after-effects. 2 groups of 39 blindfolded undergraduates served as Os. Those in Group I made 8 pre-inspection judgments of the standard stimulus; those in Group II made none. The apparatus consisted of 3 long wooden blocks mounted on tables. No statistically significant difference between the groups was found on postinspection judgments. Direction of the observed difference suggested larger aftereffects for Group II.—*R. D. Nance.*

4161. Dinnerstein, A. J., Lowenthal, M., Marion, R. B., & Olivo, J. (New York Medical Coll.) Pain tolerance and kinesthetic after-effect. *Percept. mot. Skills*, 1962, 15(1), 247-250.—Correlations between pain tolerance and kinesthetic size judgment were previously explained as a subjective augmenting or reducing of sensory inputs. The present data do not fit the above assumption and are better explained by a satiation process. However, the results do confirm the value of the kinesthetic aftereffect test as predictor of pain tolerance.—*W. H. Guertin.*

4162. Duncan, Carl P. (Northwestern U.) Amount and rate of decay of visual figural after-effect as functions of type of inspection-stimulus and inspection-time. *Amer. J. Psychol.*, 1962, 75(2), 242-250.—The 1st hypothesis was that initial amount of aftereffect would not vary with duration of inspection-period but that rate of decay of aftereffect would be inversely proportional to duration of inspection-period. It was also hypothesized that initial amount of aftereffect would vary as a function of width and type of inspection-stimulus. Inspection periods were 15 sec. or 60 sec. Inspection-stimuli were of 2 widths and 2 types (solid or outline). There were 32 Ss in each of 8 experimental conditions and 32 controls Ss. The task involved adjusting 2 hairlines equidistant from a central point. The control group did not view the inspection stimuli. Results support the 1st hypothesis but not the 2nd.—*R. D. Nance.*

4163. George, F. H. (U. Bristol) Acuity and the statistical theory of figural aftereffects. *J. exp. Psychol.*, 1962, 63(5), 423-425.—"This experiment was an attempt to reinstate the Osgood-Heyer (1952) model for explanatory purposes in perception, with the object of making plausible extension of that model in order to explain movement aftereffects. The experiment involved sets of double-line figures at various distances from a fixation point and Ss were unable to distinguish the two lines when sufficiently far from the fixation point, and under conditions of 'fatigue.' Thus, the principal features of the Osgood-Heyer model can easily be preserved from the main objections made against them by Deutsch (1956)."—*J. Arbit.*

4164. Holland, H. C. (Maudsley Hosp., Denmark Hill, London, England) Massed practice and reminiscence as a function of the distribution of trials on the rotating spiral. *Life Sci.*, 1962, No. 8, 405-409.—An experiment is described aimed at de-

termining the effect on the reminiscence phenomenon of the spiral negative aftereffect under "massed" practice conditions, and following the introduction of scheduled rest pauses between trials, i.e., distributed practice. 2 functions are outlined which are not dissimilar. Both are thought to represent aspects of the accumulation of reactive inhibition and its dissipation during rest.—*C. T. Morgan.*

4165. Noizet, Georges. Un indice de régularité dans les oscillations de la perception. [A regularity index in the oscillations of perception.] *Psychol. Franc.*, 1962, 7(2), 134-146.—An experiment, using 2 reversible perspectives and 1 ambiguous figure, was performed on 46 Ss for the purpose of studying the effects of sensory satiation on perceptual oscillations. The expected progressive increase in frequency of oscillations was confirmed but a delay was noted in the appearance of the stabilization period. A typological analysis revealed an increasing relation between frequency and regularity of oscillations. (29 ref.)—*C. J. Adkins.*

4166. Scott, Thomas R., & Medlin, Rufus E. (VA Hosp., Columbia, S. C.) Psychophysical measurement of the spiral after-effect. *Amer. J. Psychol.*, 1962, 75(2), 319-321.—Investigators of this phenomenon have used subjective reports of its presence or absence. An apparatus is described which makes possible accurate measurement of the rate of change of perceived size. S is required to fixate a rotating disk on which there is an Archimedes spiral centered at the point of rotation. The method of measurement involves alternate presentation of the spiral and a changing stimulus in a mirror tachistoscope. The apparatus is called the metamegethograph, abbreviated MMG.—*R. D. Nance.*

VISION

4167. Moore, E. W., & Cramer, R. L. Perception of postural verticality: Effects of flying experience upon reduction of error. *USAF SAM tech. docum. Rep.*, 1962, No. 62-72. 4 p.—Test pilots were compared with nonflyers on a task of bisecting an angle formed between a tilt 30° to the left and the upright with visual cues eliminated. 15 trials a day were given for 3 days. A significant reduction in errors demonstrated habituation for all Ss over the 3-day period with a uniform linear reduction within each day. No differences occurred between the experimental groups. Flying experience seems to have no relationship to a person's reduction of error in estimating a function of the postural vertical.—*M. C. Payne, Jr.*

Space Perception

4168. Calvi, G. La percezione della profondità su segnali in movimento: Comunicazione preliminare. [Perception of depth on moving signals: Preliminary communication.] *Arch. Psicol. Neurol. Psichiat.*, 1962, 23(5), 443-454.—There is a constantly reducing distance between one signal and another with the increase of the speed of movement of the same signals.—*L. L'Abate.*

4169. Carlson, V. R. (National Inst. Mental Health) Adaptation in the perception of visual velocity. *J. exp. Psychol.*, 1962, 64(2), 192-197.—"The effect of adaptation to an orbitally rotating pattern on a subsequently presented moving test stimulus

was assessed using a procedure in which S is unaware of the occurrence of aftereffect. When adaptation and test motions were in the same direction, results were generally consistent with already known aftereffects of the waterfall-illusion type. But little or no aftereffect occurred when adaptation and test motions were in opposite directions. This finding agrees neither with Adaptation Level theory nor with Gibson's principle of negative aftereffect. It may, however, be related to the recent discovery of retinal units which are differentially sensitive to the direction of stimulus movement."—*J. Arbib.*

4170. Carlson, V. R. (National Inst. Mental Health) **Underestimation in size-constancy judgments.** *Amer. J. Psychol.*, 1962, 75(3), 462-465.—Size-constancy presumably represents the fundamental, natural relationship of perceived size to object-size. It may be possible to manipulate O's (Observer's) psychological state through administration of LSD, a drug which acts centrally. Os in the present experiment were 20 males, age 18-25, chosen from normal volunteers for medical research. The major result was that LSD produced relative size-underestimation only when the drug condition represented O's first experience with the experimental task. Different response-sets "were established during the first session, depending upon whether LSD or the placebo had been administered."—*R. D. Nance.*

4171. Churchill, A. V. (Defense Research Medical Lab., Toronto, Canada) **Supplementary report: Effect of mode of response on judgment of familiar size.** *J. exp. Psychol.*, 1962, 64(2), 198-199.—Ss estimated the size of objects which were verbally identified and reported their estimates either verbally or by separating 2 straight edges the appropriate amount. Consistent with previous studies was the finding of a high degree of accuracy when making verbal or physical estimates of familiar objects on the basis of memory alone. The mode of response had little effect on the accuracy of these estimations.—*J. Arbib.*

4172. Cohen, R. L. (U. Uppsala, Sweden) **A further study of velocity synthesis.** *Scand. J. Psychol.*, 1962, 3(3), 137-142.—A prediction as to the variation of estimates of Ss performing on the velocity synthesis apparatus, if the intensity of one of the twin spots were to be decreased, was made on the basis of the signal/interference approach. This prediction was then verified by experiment, where it was found that the mean score of a group of Ss estimating absolute velocity was influenced to a far greater extent than that of a group estimating relative velocity, when the intensity of one of the twin spots was decreased stepwise to a level just above the threshold value.—*Journal abstract.*

4173. Craig, E. A. (Lehigh U.) **A simple device for demonstrating binocular disparity effects.** *Percept. mot. Skills*, 1962, 15(1), 10.—A simple, inexpensive apparatus is described. When viewed with either eye alone, apparent depth is lost.—*W. H. Guertin.*

4174. Curran, C. R., & Lane, H. L. (U. Michigan) **On the relations among some factors that contribute to estimates of verticality.** *J. exp. Psychol.*, 1962, 64(3), 295-299.—"Several variables that have been shown to influence the perception of the upright were incorporated in a multidimensional de-

sign to permit analysis of their several effects and interactions. Minimal visual cues had a dramatic effect in reducing nonveridical perception of the vertical. Distortion of body tilt and balance produced effects of lesser magnitude. All the first- and second-order interactions of these variables had large and significant effects on perception of the upright."—*J. Arbib.*

4175. Dureman, I. (U. Uppsala, Sweden) **Factors influencing the apparent velocity of visual movement after-effects.** *Scand. J. Psychol.*, 1962, 3(3), 132-136.—Estimates of speed of apparent visual movement aftereffects (VMAE) were undertaken with induction speed varied in 5 logarithmic steps from 9° to 144° per sec. 2 alternative test intervals 0.5 and 1.0 sec. were used for intermittent inspection of a stationary target. At both inspection intervals VMAE-velocity estimates were found to vary in a systematic way with induction speed. Comparing values from the 2 test intervals, the 0.5 sec. interval was found to yield significantly higher speed of VMAE than the 1.0 sec. interval.—*Journal abstract.*

4176. Epstein, W. (U. Kansas) **Apparent shape of a meaningful representational form.** *Percept. mot. Skills*, 1962, 15(1), 239-246.—Results did not provide evidence that the representational character of a form affects its apparent shape, under the impoverished conditions of monocular vision and also under the conditions of unredacted binocular vision. In addition, the results suggest that familiarity is not a very influential variable.—*W. H. Guertin.*

4177. Epstein, William; Bontrager, Helen, & Park, John (U. Kansas) **The induction of non-veridical slant and the perception of shape.** *J. exp. Psychol.*, 1962, 63(5), 472-479.—"The experiment had three aspects: (a) to determine whether the slant-induction effect reported by Beck and Gibson (1955) would obtain when the background was slanted; (b) to test more precisely the slant-shape invariance hypothesis; and (c) to investigate the influence of three attitudes of observation on the perception of shape under monocular and binocular vision." The slant-induction effect was found when the background was slanted and also when it was perpendicular. Under no condition did the judgments of apparent slant and apparent shape covary exactly as demanded by the invariance hypothesis. The influence of attitudes on the perception of shape was restricted to the binocular viewing condition.—*J. Arbib.*

4178. Gibbins, K., & Howarth, C. I. (U. Hull, England) **The effect of intermittent illumination on the visual acuity threshold.** *Quart. J. exp. Psychol.*, 1962, 14(3), 167-175.—Senders (1949) reported that with intermittent illumination short flashes needed less energy than larger ones to make a visual acuity target visible. This apparent breakdown of the reciprocal relationship between time and intensity, which has been found almost universally by earlier workers under a very wide range of experimental conditions, raised a number of interesting theoretical issues such as the relationship between visual acuity and intensity discrimination thresholds, and the plausible importance of eye movements in each. Unfortunately we have been unable to repeat Senders' result in spite of the most determined efforts to reproduce her experimental conditions. We are

unable to suggest why our results differ from hers, but feel that our experiments at least show that her data are very difficult to reproduce and hence no general theoretical argument can be based on them. In view of this we felt at liberty to predict results on the basis of a model, we had tentatively constructed, which we regarded as integrating Bloch's and Talbot's laws. This enabled us to make predictions about the effect of frequency of repetitive stimulation on thresholds. Experiments were carried out to ascertain how far these predictions were substantiated.—*Journal abstract.*

4179. Gibson, James J., & Flock, Howard. (Cornell U.) **The apparent distance of mountains.** *Amer. J. Psychol.*, 1962, 75(3), 501-503.—The usual explanation of the illusion is the clearness of the air (i.e., absence of aerial perspective). The authors suggest another possible explanation. In the neighborhood of a mountain, distant earth shapes may be relatively large and thus reverse the normal optical gradient. Illusory perception depends on a combination of circumstances which holds for the particular situation and on the degree to which attention has been trained to register reliable information. The popular idea that clearness of mountain air explains misperception of distance is too simple.—*R. D. Nance.*

4180. Harcum, E. R., Filion, R. D. L., & Dyer, D. W. (Coll. William & Mary) **Distribution of errors in tachistoscopic reproduction of binary patterns after practice.** *Percept. mot. Skills*, 1962, 15(1), 83-89.—10-element binary patterns of blackened and open circles were exposed in a linear array across fixation. Contrary to hypothesis, differences in accuracy of perception between stimuli on opposite sides of fixation are not reduced after practice. Therefore, the decrease in errors with practice is concluded to be produced by familiarization of O with the experimental situation, and by increased over-all efficiency of the perceptual process.—*W. H. Guertin.*

4181. IArbus, A. L. (Inst. Biological Physics, Moscow, USSR) **O vospriatii mel'kaiushchikh izobrazhenii, nepodviznykh otноситel'no setchatki glaza.** [On perception of flashing images, stationary with respect to the retina of the eye.] *Biofizika*, 1962, 7(5), 615-618.—When an object is strictly stationary with respect to the retina, a single brief illumination of this object allows the eye to resolve small details on it. With periodic repetition of such illumination, beginning with frequencies of 2-4 per sec. and especially in the case of frequencies of 7-9 per sec., after several seconds there is a sharp reduction of the resolving power of the eye. The resolving power of the eye decreases very greatly when the flashing light, on reflection by the object and impingement on the sclera, is scattered over the entire retina. Under these circumstances all differences in the field of vision may disappear.—*I. D. London.*

4182. Kragh, U. (Lund U., Sweden) **Subliminal gradation in the visual field.** *Scand. J. Psychol.*, 1962, 3(3), 165-170.—The difference of thresholds for correct recognition of a central figure and of a peripheral figure in the same picture, presented by the tachistoscope, is referred to 2 factors: foveal vs. extrafoveal stimulation, and threat towards the central figure (in terms of "perceptual defense"). Differences of size of the figures, again, do not effect

"subliminal gradation." The analysis is considered relevant for the comparison between 2 tachistoscopic techniques: one in which one subliminal stimulus is exposed immediately before a liminal one, and the other with only one subliminal stimulus. (22 ref.)—*Journal abstract.*

4183. Lepley, William M. (Pennsylvania State U.) **An apparatus for the study of binocular rivalry.** *Amer. J. Psychol.*, 1962, 75(2), 310.—Designed to increase binocular rivalry, 2 targets (identical Plateau spirals) are rotated in opposite directions by a variable speed motor and are viewed through the eye-pieces of a Brewster stereoscope. Research possibilities of the apparatus have not yet been explored.—*R. D. Nance.*

4184. Levonian, Edward. (U. California, Los Angeles) **Perceptual threshold of discrete movement in motion pictures.** *J. Soc. Motion Pict. TV Engineers*, 1962, 71, 278-281.—Using the method of single stimuli and 4000 judgments, thresholds for discrete movement, which is defined as image skip between frames, were determined. The thresholds were expressed in visual angle between the images on 2 successive frames and are considered to constitute lower bounds for normal film conditions employing background luminance values between 1 and 16 foot-lamberts. The results show that the threshold decreases with an increase in background luminance and a decrease in line width.—*R. L. Sulzer.*

4185. Mandriota, Frank J., Mintz, Donald E., & Notterman, J. M. (Princeton U.) **Visual velocity discrimination: Effects of spatial and temporal cues.** *Science*, 1962, 138(Whole No. 3538), 437-438.—Weber ratios were obtained for visual velocity discrimination under 3 topographic conditions with the same Ss and psychophysical procedures. The conditions differed regarding the presence of either temporal or spatial cues, these being correlated in magnitude with stimulus velocity. Systematic effects of the cues upon the level of velocity discrimination were noted.—*Journal abstract.*

4186. Nelson, T. M., & Bartley, S. H. (Michigan State U.) **A theoretical study of shape and proportion.** *Psychol. Rec.*, 1962, 12, 67-73.—"A white disk lacking visible texture was placed in several types of visibility structured surrounds. S responded by drawing the shape of the target and by representing the proportions. The results indicate that shape and proportion responses are distinct from each other. Changes in the nature of the area external to the area seen bounded by the edge affect shape responses more than proportion responses."—*R. J. Seidel.*

4187. Pollack, R. H., & Chaplin, Mary Rose. (U. Sidney, Australia) **Some methodological problems in microgenetic investigation.** *Amer. J. Psychol.*, 1962, 75(3), 495-499.—"Microgenesis" refers to the sequence of events occurring between presentation of the stimulus and formation of a single, stabilized cognitive response. Previous investigations of microgenesis may be criticized for at least 3 weaknesses in methodology. Possible ways to overcome each of these are suggested. A pilot study of the microgenesis of form-perception is reported.—*R. D. Nance.*

4188. Porter, Paul B. (U. Utah) **A general gradient theory of spatial vision.** *Ann. N. Y. Acad.*

Sci., 1962, 93, 751-760.—Bidimensional form in visual space perception is explained by physiological optics and local sign. Depth perception is explained by primary and secondary cues. Gibson suggested that these cues were all gradients of retinal stimulation. Distance on the ground, relative size, linear perspective, brightness gradients for light and shade, movement parallax, binocular parallax, and accommodation and convergence all show the same relationship. The same curve of retinal distance accounts for all of the cues to depth perception.—*B. S. Aaronson*.

4189. Senders, John W., & Senders, Virginia L. (U. Minnesota) Woodpile revisited: A comment on Gibbins and Howarth's failure to repeat Senders findings. *Quart. J. exp. Psychol.*, 1962, 14(3), 176-177.—(See 37: 4178).

4190. Wallach, Hans, & Moore, Mary E. (Swarthmore Coll.) The role of slant in the perception of shape. *Amer. J. Psychol.*, 1962, 75(2), 289-293.—The traditional explanation of shape constancy assumes that the orientation of an object is registered and its slant relative to the line of sight taken into account. However, there is no empirical evidence that perception actually follows this course. Theories of monocular observation involving cues for slant and assumptions about true shapes tend to be circular explanations. Triangles with a base of 2.5 in. were presented on 2 slopes. Perceived shape of the triangles was represented by a matching procedure. Os used a headrest throughout. In 2 control experiments cues for the slant of a background surface were eliminated. It was demonstrated that good shape-constancy for a figure could be obtained solely from cues to the slant of its background.—*R. D. Nance*.

4191. White, Benjamin W. (Massachusetts Inst. Technology) Stimulus-conditions affecting a recently discovered stereoscopic effect. *Amer. J. Psychol.*, 1962, 75(3), 411-420.—This phenomenon is based on a stimulus display consisting of 2 rectangular dot-matrices similar to those described by Julesz. The effect must depend upon elaborate and precise processing of the images to the 2 eyes. Psychologists have preferred to make the assumption that such perception is based on learning. It is hard to see how a convincing case can be made for past experience here. An account is given of ways in which such displays have been modified and of the degree to which such changes influence the depth effect. Certain questions remain to be answered about this new stereoscopic effect. Can it, for example, be achieved if the elements differ in shape or in color?—*R. D. Nance*.

4192. White, B. W. (Massachusetts Inst. Technology) Effect of temporal ordering on visual recognition. *Percept. mot. Skills*, 1962, 15(1), 75-81.—Ss were asked to view short movies of 3-dimensional nonsense forms and then to identify a still picture of the same form in a new orientation in a set of 4 similar forms. This task proved no more difficult when the movie showed the form moving in a smooth, regular progression, than when the frames of this movie were shown in scrambled order. It is concluded that the stimulus factors making for the perception of smooth, rigid movement are not necessarily the same as those which permit accurate ex-

trapolation from a series in a recognition task.—*W. H. Guertin*.

4193. Wohlwill, Joachim F. (Clark U.) The perspective illusion: Perceived size and distance in fields varying in suggested depth, in children and adults. *J. exp. Psychol.*, 1962, 64(3), 300-310.—"This experiment investigated the effects of different stimulus fields, made up of perspective drawings varying in the amount and regularity of the elements subjected to perspective deformation, on the judgment of relative size and distance in the plane of the drawings. Four age groups, varying from first-grade children to college-age adults, were used as Ss. The results obtained confirmed the prediction that, as the amount and redundancy of information to depth contained in the field increased, the apparent midpoint of a segment of a line through the vanishing point would be displaced towards the top of the field. The results for the size judgments were less consistent. The only age difference appeared on the distance judgments, where adults exhibited smaller effects than children between 7 and 14 yr. of age. The implications of the experiment for an informational approach to the study of space perception are briefly considered."—*J. Arbit*.

4194. Zusne, L., & Michels, K. M. (Purdue U.) More on the geometricity of visual form. *Percept. mot. Skills*, 1962, 15(1), 55-58.—An experiment using 5-sided polygons as stimuli was performed to extend the findings of a previous experiment in which 4-sided polygons were used to establish a tentative definition of "geometric form" and to evaluate the contribution of certain physical form parameters to judged geometricity. The findings of the earlier experiment were confirmed: bilaterally symmetrical and compact figures were judged to be more geometric than asymmetrical and jagged ones. The contribution of 2 other physical form parameters and the implications of the findings for the use of geometric figures in form perception studies are discussed.—*W. H. Guertin*.

Color Vision

4195. Helm, Carl E., & Tucker, Ledyard R. (Princeton U.) Individual differences in the structure of color-perception. *Amer. J. Psychol.*, 1962, 75(3), 437-444.—Torgerson's multidimensional-triad ratio-scaling procedure was utilized to determine similarity scale values of pairs of color chips for normal and color-deficient Ss. Scale values were arranged as a matrix with rows for values and columns for Ss. Cross-product factoring yielded a 3-dimensional structure with normal Ss in one plane and color-deficient Ss in another.—*R. D. Nance*.

4196. Lightfoot, Charles. (U. Illinois) Contextual influence upon the perception of color. *Amer. J. Psychol.*, 1962, 75(3), 503-504.—Materials necessary are a sheet of blue-ruled yellow paper, a sheet of plain white paper, and a white light source. When the white sheet is properly laid on the yellow one, the 2nd blue line appears green while the top one remains blue. The adjacent yellow appears more saturated. If the white sheet is moved slowly downward, the effect is heightened.—*R. D. Nance*.

4197. Miller, Kliem R. Absolute identification of Munsell hues under red illumination. *HumRROR res. Memo.*, 1961, Subtask Armornite IX, Task 11-27.

ii, 6 p.—Of 9 identifiable surface colors, 4 are usable "together for coding under red light when absolute identification is required." There may be "3 groups of 4 colors each."—*R. Tyson.*

4198. Sirkar, Arun K. Quantitative mental estimation of various colors. *Psychol. Stud., Mysore*, 1962, 7(2), 1-5.—Experiments on students in determining the percentage for green, blue, and yellow colors in mixtures showed that "in quantitative estimation of the colors no rigid formulation is possible."—*U. Pareek.*

Visual Sensitivity

4199. Beck, Jacob. (U. Pennsylvania) Supplementary report: An examination of an aspect of the Gelb effect. *J. exp. Psychol.*, 1962, 64(2), 199-200.—Previous studies showed that the judgment of illumination of a visual field consisting of discriminable areas of differing but uniform luminance is strongly influenced by the luminance of the highest reflecting area. The present experiment tests this hypothesis by obtaining judgments of lightness and illumination in a situation similar to that of Gelb's. The hypothesis was supported.—*J. Arbitt.*

4200. Lipkin, B. S. (Columbia U.) Monocular flicker discrimination as a function of the luminance and area of contralateral steady light: I. Luminance. *J. Opt. Soc. Amer.*, 1962, 52(11), 1287-1295.—It is hypothesized that a steady light in one eye will lower or inhibit the critical rate (CFF) of contralateral intermittent flashes of light in a manner consonant with the effect of an adapting field on the discrimination of single flashes. Luminances spanning a 6-log-unit range were variously combined in 2 1.5° fields. Results indicate that there is an inhibitory effect which depends in part on relative luminances: except with very dim stimuli, an adapting light dimmer than a given flicker light reduces CFF somewhat; and CFF decreases progressively as adapting luminance increases. Viewed with bright adapting light, a moderately bright flicker field shows a 10%-20% reduction in CFF and a dim flicker light (whose CFF is 8 cps or less) shows a 100% reduction in CFF. However, the data, when plotted in a $\Delta I/I$ format, shows only partial similarity to curves of steady-field and single-flash luminance discrimination. Moreover, the upper limb in each of the family of binocular CFF-log I curves, in which adapting luminance is the parameter, parallels the monocular curve, and may be fitted to a similar exponential equation.—*Journal abstract.*

4201. Lipkin, B. S. (Columbia U.) Monocular flicker discrimination as a function of the luminance and area of contralateral steady light: II. Area. *J. Opt. Soc. Amer.*, 1962, 52(11), 1296-1300.—The relation between field size and decrease in critical rate (CFF) of a flickering field stereoscopically superimposed on a contralateral steady image is reported. 2 designs were used. In one, luminances spanning a 6-log-unit range were variously combined in fields which were both 1.5°, 3°, or 9°, or in which the flickering field was the smaller image. The other design utilized the same luminance combinations but the flickering image was 6° and the adapting field was varied from 9° to 1.5°. Results indicate that if both fields are initially 1.5° then increasing the size of both fields or of just the adapting field does not further decrease CFF. But if the size of the flicker-

ing field is increased to 6°, CFF of the 1.5° central portion of the flicker field which appears superimposed on the 1.5° adapting field is markedly reduced, while the flickering annulus shows the threshold reduction expected with equal-sized 6° fields. The center of a fairly bright 6° flicker field viewed with an adapting field 4.5° or less and flashing at low frequencies appears steady. Several interpretations of the results (macular dominance, corresponding points, monocular cross-regional interaction) are discussed.—*Journal abstract.*

4202. Matin, L. (Columbia U.) Binocular summation at the absolute threshold of peripheral vision. *J. Opt. Soc. Amer.*, 1962, 52(11), 1276-1286.—Binocular probability of seeing, $P(B)$, was measured as a function of the time between onsets of 2-msec., 35-min. visual angle flashes to corresponding locations 7° horizontally displaced from the foveas of both eyes of dark-adapted Ss. $P(B)$ was greater than the value that would be predicted if the 2 eyes were independent detectors [$P'(B)$] for interstimulus intervals below 100 msec. 2 peak values of $P(B)$ were observed, one occurring close to zero and the other close to 90 msec. $P(B)$ and $P'(B)$ were indistinguishable for interstimulus intervals above 100 msec. It is concluded that the largest barrier to seeing at threshold lies in a pathway common to the 2 eyes.—*Journal abstract.*

4203. Raab, David H., & Osman, Eli. (Brooklyn Coll.) Effect of temporal overlap on brightness matching of adjacent flashes. *J. Opt. Soc. Amer.*, 1962, 52(10), 1174-1178.—Flashes having durations of 10, 20, 50, and 100 msec. were matched in brightness to an adjacent 200-msec. standard. When the standard and test stimuli terminated together, the results confirmed earlier demonstrations of the Broca-Sulzer phenomenon. Different functions relating the growth of brightness to duration were generated, however, when the flashes matched to each other had coincident onsets or coincident middurations. The matches made with stimuli terminating together were shown to exhibit transitivity: Targets which are as bright as a standard are approximately as bright as each other. Finally, an effect of relative luminance on apparent temporal position is described.—*Journal abstract.*

4204. Spigel, I. M., & Hamilton, H. C. (U. Pittsburgh School Medicine) A pre-exposure vector in CFF surround brightness. *Percept. mot. Skills*, 1962, 15(1), 142.—The purpose of the present experiment was to determine the effects of pre-fixation on a solid I-figure on binocular foveal CFF (critical flicker fusion). The mean CFF for the 12 Ss in the absence of prior fixation on the I-figure was 29.1 cps. The postfixation mean CFF was 30.6 cps. The t ratio of 3.8 for the 1.5 cps difference was significant at less than the .01 level. One reason for the difference in the unexpected direction could involve a phenomenally brighter surround and target which may have resulted from a negative afterimage that followed fixation of the solid I-figure.—*W. H. Guertin.*

Eye Movements

4205. Crovitz, Herbert F., & Daves, Walter. (VA Hosp., Durham, N. C.) Tendencies to eye movement and perceptual accuracy. *J. exp. Psychol.*, 1962, 63(5), 495-498.—"The direction of initial

postexposure eye movements was studied in a tachistoscopic situation in which a row of numerals appeared across the visual field and no eye movement occurred until the cessation of stimulation. A congruence was found between the direction of the initial eye movement and the side of the visual field more accurately perceived. This finding supports the hypothesis that differential tendencies to eye movement are associated with differential accuracy. A secondary finding was that, in monocular viewing, there were more eye movements to the side of the viewing eye."—*J. Arbit.*

4206. Shakhnovich, A. R., & Shakhnovich, V. R. Fotoskaniruiushchii polioikulograf. [Photoscanning polyoculograph.] *Biofizika*, 1962, 7(4), 473-474.—An apparatus is described for registering both the horizontal and vertical components of eye-movements and the vertical diameter of the pupil.—*I. D. London.*

4207. Stiefel, Joseph W., & Smith, J. Lawton. (Duke U. Hosp.) Vertical optokinetic nystagmus: The normal response. *Neurology*, 1962, 12(4), 245-249.—The authors feel that the abnormalities in the vertical response are likely to have diagnostic significance and they report the results of an electro-oculographic study of the vertical optokinetic responses in normal individuals in order to shed light on this problem. 20 normal Ss were examined and the authors conclude "the vertical responses were found to be nearly symmetrical with only minor variations."—*R. Gunter.*

CHEMICAL SENSES

4208. Gregson, R. A. M. (J. Lyons & Co., Ltd., London, England) A rating-scale method for determining absolute taste thresholds. *J. food Sci.*, 1962, 27, 376-380.—"Absolute taste thresholds for salt and sweetness were determined by a combination of ascending-series and rating-scale methods: for salt a value only very slightly under previous quoted figures was obtained, for sugar a value of .002 p/p was obtained." Results permitted scaling of each description on the 7-point scale in terms of both just-noticeable-differences above threshold and solution concentration, suggesting the possibility of operationally defining a number of thresholds in an ascending series.—*D. R. Peryam.*

4209. Pangborn, Rose Marie. (U. California, Davis) Taste interrelationships: III. Supra-threshold solutions of sucrose and sodium chloride. *J. food Sci.*, 1962, 27, 495-500.—10 highly trained Ss tested the effect of 4 concentrations of sodium chloride on the sweetness of 4 concentrations of sucrose in distilled water, and the effect of sucrose on saltiness using the same design but different concentrations. Both single stimulus and paired comparison methods were used. The apparent saltiness of higher levels (0.36-3.24%) of salt was reduced by sucrose. The apparent sweetness of lower levels (0.75-6.75%) of sucrose was increased by lower, and reduced by higher, salt additions. All salt levels depressed the sweetness of 20.25% sucrose. There was large variation in scoring attributable to differences between Ss, but reproducibility of judgment was much better for the paired than for single stimulus method.—*D. R. Peryam.*

4210. Stone, H., Ough, C. S., & Pangborn, R. M. (U. California, Davis) Determination of odor dif-

ference thresholds. *J. food Sci.*, 1962, 27, 197-202.—The olfactometer is described. It operates by diluting odorant-saturated air into a controlled airflow at constant temperature and humidity. Measurement was found to be rapid and reproducible. Thresholds were established at 4 levels of 2-heptanone by the constant stimulus method using 48 Ss. Weber's law was confirmed with a Weber fraction of 0.23 mg/min/deviate. The absolute threshold was 8.97×10^{-4} mg. per liter of air.—*D. R. Peryam.*

SOMESTHESIS

4211. Chkhaidze, L. V. (Georgian Inst. Physical Culture, Tbilisi, USSR) Vlianie izmeneniĭ gravitatsionnogo polia na koordinatsiiu proizvol'nykh dvizhenii cheloveka. [Influence of changes in the gravitational field on the coordination of voluntary movements in man.] *Soobshch. Akad. Nauk Grus. SSR*, 1962, 28(5), 593-600.—The coordination of voluntary movements (strength of 2 sequential and differentiated finger-pressings) is expected to be disturbed with increase of the gravitational field. The limits of disturbance depend on the state and training of the S and are proportional to the logarithm of acceleration of the gravitational force. Systematic practice of the disturbed motor habit in the gravitational field leads to its reestablishment. The reestablishment is a function of the state and training of the S, the magnitude of gravitation, and at separate periods of time is proportional to the logarithm of the time for executing the movements, provided the gravitational field does not progressively increase and the movements are executed with constant frequency. It is felt that a similar situation would prevail in a field of zero-gravity.—*I. D. London.*

4212. Egorov, A. S., & Zakhariants, I. U. S. (Inst. Physical Culture, Leningrad, USSR) Elektrofiziologicheskie issledovaniia kinestezicheskogo analizatora. Soobshchenie I. Prostranstvennye komponenty dvizheniia. [Electrophysiological investigation of the kinesthetic analyzer. Communication I. Spatial components of movement.] *Dokl. Akad. Pedagog. Nauk RSFSR*, 1961, No. 6, 89-92.—10 Ss were instructed to evaluate by means of kinesthetic stimulation only, the amplitude of the arm moving up and down at the elbow joint. The amplitude, the EMG, and the "mechanograms" were recorded. The movement took place under different conditions (passive and active movements, with or without control). The basic task consisted in reproducing the amplitude of a certain standard. Among the findings are: (a) in active and controlled movements there is a greater expenditure of electric energy than in passive and uncontrolled movements and (b) the kinesthetic analysis consists in "singling out of the stream of muscular stimulations of certain moments corresponding to the location of the arm in space."—*A. Cuk.*

4213. Eisler, Hannes. (Harvard U.) Subjective scale of force for a large muscle group. *J. exp. Psychol.*, 1962, 64(3), 253-257.—"The subjective force of pushing a pedal with the leg has been scaled as an instance of the subjective force exerted by a large muscle group. The following methods were employed: magnitude estimation, magnitude production, matching the force of handgrip to the force of foot pressure and vice versa, and matching both foot pressure and handgrip to the intensity of white noise.

The experiments involving numbers yielded a power function with an exponent of 1.6 relating subjective force to physical force. All the matching experiments showed that the exponent for force of foot pressure and force of handgrip is the same. The exponent for handgrip has previously been determined as 1.7.—*J. Arbit.*

4214. Geldard, F. A. (U. Virginia) **The language of the human skin.** In G. Nielson (Ed.), *Proceedings of the XIV International Congress of Applied Psychology. Vol. 5. Industrial and business psychology* (see 37: 4120). Pp. 26-39.—"Vibratense" using variations of intensity, duration, and location is being used experimentally. 1 S has used it at the rate of 28 5-letter words per minute; a rate of 67 words per minute is theoretically possible.—*B. T. Jensen.*

4215. Hinchcliffe, R., & Voots, R. J. (State U. Iowa) **An electronystagmographic technic for the examination of vestibular function.** *Neurology*, 1962, 12(10), 686-697.—A technique of precision examination of vestibular nerve function, using combined paper and photo-oscilloscopic recordings of corneoretinal potentials, is described and the interpretation of results is discussed.—*R. Gunter.*

4216. Hirsch, A. P. (325 Hameln/Weser, Im Kreuzfeld 32) **Die Vibrationsempfindung in ihrem speziellen und ihrem generellen Aufgabenkreis.** [Special and general functions of sensitivity to vibration.] *Z. exp. angew. Psychol.*, 1962, 9(2), 190-241.—Based on long years of experience with deaf and dumb persons the far reaching influence of the vibration sense is pointed out. The physical nature of the stimulus extending beyond the measurable range, endogenous and exogenous sources for vibration, and the conduction within the human organism are discussed. Special emphasis is placed on the role of vibration in audition and in the development of language in infants.—*W. J. Kopitz.*

4217. Jones, F. Nowell; Singer, David, & Twelker, Paul A. (U. California, Los Angeles) **Interactions among the somesthetic senses in judgments of subjective magnitude.** *J. exp. Psychol.*, 1962, 64(2), 105-109.—"Twenty Ss gave magnitude estimates of pressure stimuli in the presence of concomitant cold or warm stimuli, and magnitude estimates of cold and of warmth in the presence of concomitant pressure stimuli. It was found that judgments of magnitude can be made independently of concomitant stimulation in another modality. It was suggested that this result is consistent with the assumption of separable neurological mechanisms for the skin senses under consideration."—*J. Arbit.*

4218. Kamchatnov, V. P. (Medical Inst., Kazan, USSR) **O kozhnoi chuvstvitelnosti u rabotaiushchikh v absoliutnoi temnote i na svetu.** [Skin sensitivity in persons working in complete darkness and by light.] *Zh. vyssh. nervn. Deiatel.*, 1962, 12(1), 37-39.—By means of an aesthesiometer the skin sensitivity of 7 females working in darkness and of 8 females working by light was determined. The sensitivity of the 1st group was significantly lower than that of the 2nd group. The lowering is explained in terms of work conditions.—*A. Cuk.*

4219. Mallick, Amal Kumar. **Construction of a psychological scale of thickness.** *Psychol. Stud., Mysore*, 1962, 7(2), 6-10.—Preliminary study with

thickness of 1.25, 3.75, 6.25, 10.00, 12.50, 15.00, and 18.75 mm. shows that thickness of 4.96 mm. is found to be judged as $\frac{1}{2}$ of the thickness of 10 mm. This subject has been taken as a unit and has been called 1 Dicke and a scale of psychological thickness has been prepared. 4 empirical equations have been deduced connecting psychological thickness with physical thickness. "The obtained scale is found to be in conformity with similar scales for other sense modalities."—*U. Pareek.*

4220. Poser, Ernest G. (McGill U.) **A simple and reliable apparatus for the measurement of pain.** *Amer. J. Psychol.*, 1962, 75(2), 304-305.—Providing a useful alternative to thermal and electrical devices currently used in studying threshold and tolerance-levels, this apparatus consists of a standard clinical sphygmomanometer with pressure gauge calibrated to 300 mm./Hg. Pain-stimuli are delivered by 94 pointed 7-mm. projections on a $4\frac{1}{2} \times 2\frac{3}{4}$ in. base. With the cuff in position, these projections rest against the medial surface of S's upper arm. A source of compressed air is used in lieu of pressure bulb. S is instructed to report when pressure changes to pain and when pain becomes intolerable. Rank-order retest correlations between 0.75 and 0.85 have been obtained.—*R. D. Nance.*

4221. Verrillo, Ronald T. (Syracuse U.) **Investigation of some parameters of the cutaneous threshold for vibration.** *J. Acoust. Soc. Amer.*, 1962, 34(11), 1768-1773.—Sensitivity to vibration on the hand was determined as a function of frequency, contactor dimensions, contactor configuration, and distance of the contactor from a rigid support. It was found that each of these parameters affects the threshold in a different way. In the frequency range between 25 and 640 cps, the absolute threshold as a function of frequency yields a U-shaped curve that reaches a maximum of sensitivity in the region of 250 cps. The effect of the geometric parameters appears to be highly complex. (20 ref.)—*A. M. Small, Jr.*

4222. Weddell, G., & Miller, S. (Oxford U., England) **Cutaneous sensibility.** *Annu. Rev. Physiol.*, 1962, 24, 199-222.—A survey of the literature completed in October 1961. The material is organized in terms of the following major topics: anatomy, physiology, clinical observations, and human sensory experiments. (155 ref.)—*M. J. Wayner, Jr.*

HEARING

4223. Durlack, N. I. (Massachusetts Inst. Technology) **Note on the creation of pitch through binaural interaction.** *J. Acoust. Soc. Amer.*, 1962, 34(8), 1096-1099.—"The Huggins creation of pitch stimulus is regarded as a binaural masking stimulus and the equalization and cancellation model of binaural masking level differences is applied to the creation of pitch phenomena."—*A. M. Small, Jr.*

4224. Groen, J. J. (Utrecht State U., Netherlands) **Inhibitory mechanism of the vestibular system in man in comparison with hearing.** *J. Acoust. Soc. Amer.*, 1962, 34(9 Pt. II), 1497-1503.—"Adaptation in the organs of hearing and equilibrium is compared. The latter is demonstrated in normal individuals under different circumstances, appearing in the form of inhibition of vertigo and nystagmus. Apparently, the adapted state persists longer in the

vestibular system than in hearing. The growing influence of the vestibular inhibitory efferent system in man is demonstrated in a newborn infant." (20 ref.)—A. M. Small, Jr.

4225. Hood, J. D. (National Hosp., London, England) **Bone conduction: A review of the present position with especial reference to the contributions of Dr. Georg von Békésy.** *J. Acoust. Soc. Amer.*, 1962, 34(9 Pt. II), 1325-1332.—"The very great advances in our knowledge of bone conduction have been made by Békésy's fundamental investigations are outlined and considered in relationship to the influence they have brought to bear upon the investigations of later workers in this field. The topics considered include the mode of vibration of the skull, the theoretical mechanisms of bone conduction, the so-called occlusion effect, bone conduction in a free sound field, and the interaural attenuation across the head." (46 ref.)—A. M. Small, Jr.

4226. Jeffress, Lloyd A., & Robinson, Donald E. (U. Texas) **Formulas for the coefficient of interaural correlation for noise.** *J. Acoust. Soc. Amer.*, 1962, 34(10), 1658-1659.—Formulas for the coefficients of interaural correlation for noise are derived for the case where there are 3 similar sources, 1 for 1 ear, 1 for the other, and 1 for both; and for the case where there are 2 sources, 1 for 1 ear and 1 for both. Some confusion in the literature between these 2 formulas is described.—A. M. Small, Jr.

4227. Ritsma, R. J. (Inst. Perceptie Onderzoek, Eindhoven, Netherlands) **Existence region of the tonal residue. Part I.** *J. Acoust. Soc. Amer.*, 1962, 34(9, Pt. I), 1224-1229.—The literature shows that attempts to establish the residue have not always been successful, mostly due to the specific frequency combinations chosen. In this paper, measurements are described on an harmonic complex consisting of 3 components, with variable modulation depth and frequency. This harmonic complex is found to have a decidedly tonal character within a limited frequency region. The boundaries for a complex with a modulation depth of 100% are roughly given by values of the center frequency $f < 5000$ cps, and values of the spacing frequency $g \geq 0.05f$. A theoretical model of a pitch-extractor is presented which accounts for the observed frequency region of the tonal residue.—A. M. Small, Jr.

4228. Rosenzweig, Mark R. **Auditory localization.** *Scient. American*, 1961, 205(4), 132-146.—Starting at each ear and leading to the cerebral cortex is a chain of neurons. There are several stations along the chain where some neurons end and others begin. At all but the very lowest of these stations the pathways from the 2 ears overlap to some extent. Neural impulses from 1 ear consequently have an increasing probability of encountering impulses from the other as they approach the cortex. The converging impulses make some groups of nerve cells become more active and others less so. The resulting different patterns of activity in the auditory cortex are correlated with different locations of auditory stimuli.—L. A. Waack.

4229. Schouten, J. F., Ritsma, R. J., & Cardozo, B. Lopes. (Inst. Perceptie Onderzoek, Eindhoven, Netherlands) **Pitch of the residue.** *J. Acoust. Soc. Amer.*, 1962, 34(9, Pt. II), 1418-1424.—The residue is defined as the joint perception as a specific pitch

of a number of Fourier components. The consequences of this phenomenon for the theory of hearing are briefly reviewed in the light of past experiments. Special attention is then called to what are termed the 1st and 2nd effects of pitch shift. The 1st effect is found when equidistantly shifting the entire Fourier spectrum. The 2nd effect shows itself primarily in a slight drop in pitch when increasing the frequency spacing of the Fourier components. Both these phenomena strongly point towards a pitch-extracting mechanism different from and subsequent to the basilar membrane and operating in the time domain.—A. M. Small, Jr.

4230. Thiessen, G. J., & Subbarao, K. (National Research Council, Ottawa, Canada) **Effect of reverberation on assessment of repetitive impulse noise.** *J. Acoust. Soc. Amer.*, 1962, 34(11), 1761-1763.—Reverberation is found to decrease the acceptability of impulse noise even though directional effects resulting from head diffraction are eliminated by presenting the signals by means of earphones. 4 clicks per sec., with artificially added reverberation corresponding to $\tau = 1.1$ sec., were presented to the Ss who could adjust the level until it matched the same signal without reverberation. Matching was done according to "annoyance," "noisiness," and "speech interference." Reverberation had no appreciable effect when the reference signal was of low level. The maximum effect occurred in the 85- to 90-db. sound pressure level region where it was equivalent to about 3, 4, and 8 db, respectively, for the 3 criteria.—A. M. Small, Jr.

4231. Tonndorf, Juergen. (U. Iowa) **Compressional bone conduction in cochlear models.** *J. Acoust. Soc. Amer.*, 1962, 34(8), 1127-1131.—Animal experiments suggest the possibility that the compressional mode of bone conduction might produce a displacement of the cochlear partition, even when the cochlear windows and all other potential pressure outlets are closed. This assumption was found correct for the case of a cochlear model. It executed so-called "distortional" vibrations, i.e., while its walls in one place moved inward, those in the other moved outward and vice versa.—A. M. Small, Jr.

4232. Tonndorf, Juergen. (U. Iowa) **Time/frequency analysis along the partition of cochlear models: A modified place concept.** *J. Acoust. Soc. Amer.*, 1962, 34(9, Pt. II), 1337-1350.—Cochlear analysis of an applied signal is considered to be given by the distribution of amplitudes along the partition. This form of resolution has been thought to correspond to the result of a straightforward Fourier analysis. The present paper attempts to show that cochlear models of the Békésy-type do not perform in this manner. Along the existing time/frequency continuum, the response to sinusoidal signals represents one extreme, approaching a pure Fourier (frequency) analysis, and the response to transients the other extreme, approaching a pure time (waveform) analysis. Responses to all other signals arrange themselves between those 2 extremes; i.e., the resolution depends upon spectral as well as temporal features of the applied signal. (30 ref.)—A. M. Small, Jr.

4233. Ushakova, T. N. (Inst. Psychology, RSFSR Acad. Pedagogical Sciences) **Vliianie slovesnoi sistemy na slukhuvoi analizator cheloveka.** [Affect of verbal system on the auditory analyzer of man.]

Dokl. Akad. Pedagog. Nauk RSFSR, 1961, No. 6, 77-80.—Ss (data on Ss very defective) were asked to discriminate first verbally and then by pressing a key between 4 tones of the same loudness. The tones were 1046, 1245, 1480 and 1760 cycles. The task consisted of discriminating the 1245 cycle tone from the others. The motor reaction time was recorded under the following conditions: positive (when the 2nd tone was the same as the standard), negative (when the 2nd tone was different but 1 of the 3 constant stimuli), indifferent (when the 2nd tone was different and extraneous). The results showed a strong effect of the positive and inhibitory stimuli on the analyzer. This effect seemed to be a function of the musical training and ability of the Ss.—*A. Cuk.*

4234. *van Bergeijk, William A.* (Bell Telephone Lab., Murray Hill, N. J.) **Variation on a theme of Békésy: A model of binaural interaction.** *J. Acoust. Soc. Amer.*, 1962, 34(9, Pt. 11), 1431-1437.—The model of binaural interaction proposed by Békésy is reexamined in the light of recent anatomical and physiological findings. A modified model is proposed in which time and intensity are mapped independently in the accessory nuclei of the superior olive; excitatory and inhibitory neural signals interact at the accessory nucleus neurons, giving rise to a time-intensity trade. The behavior of the model is in qualitative accord with psychophysical and physiological observations. (16 ref.)—*A. M. Small, Jr.*

4235. *Ward, W. Dixon.* (Subcommittee on noise, 327 S. Alvarado, Los Angeles) **Damage-risk criteria for line spectra.** *J. Acoust. Soc. Amer.*, 1962, 34(10), 1610-1619.—It is demonstrated that the differences in temporary threshold shift (TTS) producing ability of tones and noises can be attributed mainly to their differences in ability to arouse the acoustic reflex; since noises cause more sustained contraction of the middle-ear muscles than do pure tones, less TTS will usually be produced by noise. Because this difference in contraction, and hence in effective attenuation, is a variable function of frequency, intensity, and time, no one single decibel correction factor is appropriate. It is suggested that damage-risk criteria for pure tones should be developed empirically by measuring TTS directly rather than by attempting to modify existing criteria for octave-band noise.—*A. M. Small, Jr.*

4236. *Ward, W. Dixon.* (Subcommittee on Noise, Los Angeles, Calif.) **Studies on the aural reflex: III. Reflex latency as inferred from reduction of temporary threshold shift from impulses.** *J. Acoust. Soc. Amer.*, 1962, 34(8), 1132-1137.—The effective protection provided by arousal of the acoustic reflex against temporary threshold shift (TTS) at 4 kc from exposure to impulse noise was studied by comparing the rate of growth of TTS produced by 2-min. exposures to clicks of successively higher peak levels. 2 conditions were used: (a) clicks heard alone, and (b) each click preceded at various intervals from 25 to 150 msec. by a 1000-cps 100 db pure tone presented to the contralateral ear. The results imply that the effective attenuation amounts to 1 db. at 25 msec., 5 db. at 62 msec., and 13 db. at 100 msec. Individual differences were large; some of the most slowly responding ears did not show significant protection until the delay reached 150 msec.—*A. M. Small, Jr.*

4237. *Wever, Ernest Glen.* (Princeton U.) **Development of traveling-wave theories.** *J. Acoust. Soc. Amer.*, 1962, 34(9, Pt. II), 1319-1324.—"The traveling-wave theories are traced historically from their earliest formulation to modern times. Special consideration is given to the weighty influence on the later developments of these theories exerted by Békésy's direct visual observations of the movements of cochlear structures in response to sounds. Finally, a résumé is given of the characteristics of the tonal patterns and their dependence upon the physical variables operating within the cochlea, according to Békésy's experiments on mechanical models and specimens of human and animal ears. Hereby are brought into focus the many conditions that a final theory of hearing must meet."—*A. M. Small, Jr.*

Measurement

4238. *Butler, R. A., & Naunton, R. F.* (U. Chicago) **Some effects of unilateral masking upon the localization of sound in space.** *J. Acoust. Soc. Amer.*, 1962, 34(8), 1100-1107.—Ss were asked to locate various puretone and complex-sound signals delivered by a concealed loudspeaker while puretone or complex masking stimuli were delivered to one ear by means of a single headphone. The results indicate that masking can have a strong and consistent effect in pulling the apparent source of the free-field signal toward the masked ear. The effect is striking when the frequency spectrum of the mask covers that of the free-field signal; the effect may still be evident, however, when signals and mask have no frequency components in common.—*A. M. Small, Jr.*

4239. *Craig, James H., & Jeffress, Lloyd A.* (U. Texas) **Effect of phase on the quality of a two-component tone.** *J. Acoust. Soc. Amer.*, 1962, 34(11), 1752-1760.—Ss' responses to monaurally presented 2-component stimuli (a 250-cps tone and its octave at various intensities and phase relations) reveal striking individual differences and unexpected patterns. When the intensity of 1 of the stimulus components and the phase angle between the components are held constant, reversals of phase of the entire stimulus become discriminable as soon as the intensity of the 2nd component is increased a little above threshold. With certain combinations, as the 2nd component is further increased, phase discrimination for one S reaches a maximum, decreases to chance, and then increases again. For another S under the same set of conditions, phase discrimination does not fail, but rather, monotonically increases. (31 ref.)—*A. M. Small, Jr.*

4240. *Elliott, L. L.* **Backward masking: Monotic and dichotic conditions.** *USAF Sam Rep.*, 1962, No. 62-76. 14 p.—White noise was used as a masking signal and a 1000-cps tone as a masked signal. In forward masking the masked signal followed masking signal in time. In backward masking these relations were reversed. For monotic conditions masking stimuli as well as the masked signal were presented to the right ear. For dichotic conditions masking was presented to the left ear and masked signal to the right ear. 8 Ss were used. Results indicate that monotic backward masking occurs over time intervals up to 50 msec., while for the dichotic condition, backward masking occurs for intervals as long as 15 msec. Less monotic forward

masking is obtained for brief masking intervals, and very little dichotic forward masking is observed.—*M. C. Payne, Jr.*

4241. Elliott, Lois L. (Brooks AFB, Tex.) Backward and forward masking of probe tones of different frequency. *J. Acoust. Soc. Amer.*, 1962, 34(8), 1116-1117.—Backward and forward masking produced by noise on 500-, 1000-, and 4000-cps probe tones were explored under monotonic and dichotic listening conditions. Effect of probe frequency was found to vary with duration of the masking interval.—*A. M. Small, Jr.*

4242. Elliott, Lois L. (Brooks AFB, Tex.) Backward masking: Monotonic and dichotic conditions. *J. Acoust. Soc. Amer.*, 1962, 34(8), 1108-1115.—"Backward masking" denotes the situation in which a stimulus is masked by another stimulus which follows it in time while "forward masking" is the temporal converse. In this study, backward and forward masking were investigated for both monotonic and dichotic conditions using white noise as the masking signal, and a 1000-cps probe signal. Results indicate that monotonic backward masking occurs over intervals up to 50 msec. while, for the dichotic condition, backward masking occurs for intervals as long as 15 msec. Less monotonic forward masking is obtained for brief masking intervals and very little dichotic forward masking is observed.—*A. M. Small, Jr.*

4243. Green, David M., & Sewell, Susan T. (Massachusetts Inst. Technology) Effects of background noise on auditory detection of noise bursts. *J. Acoust. Soc. Amer.*, 1962, 34(9, Pt. I), 1207-1216.—The ability of Ss to detect signals that are bursts of white noise is measured by 2 procedures. In both procedures the S's task is to select the interval containing the signal from the 2 temporal intervals, marked by lights, which constitute a trial. In the 1st, the signal is added to a continuous background of white noise; in the 2nd, the signal is added to one or the other of 2 equal noise bursts, that are added to the continuous background noise during the observation intervals. In the 1st experimental condition the results are consistent with the assumption that S is uncertain about either the exact time when the signal occurs or its exact duration, or about both. In the 2nd procedure the psychometric functions are consistent with the prediction of a statistical-decision model that assumes exact knowledge of the temporal occurrence of the signal.—*A. M. Small, Jr.*

4244. Ham, Lloyd B., Biggs, Frank, & Cathey, Everett H., Jr. (U. Arkansas) Fractional and multiple judgments of loudness. *J. Acoust. Soc. Amer.*, 1962, 34(8), 1118-1121.—Data based on over 2000 Ss gathered during the last 26 years on loudness estimates obtained with pure tones ranging from 0.06 to 10 kcps are presented. They indicate that fraction judgments require a smaller decibel change of intensity than the corresponding multiple loudness estimates.—*A. M. Small, Jr.*

4245. Hirsh, Ira J. (Central Inst. Deaf, St. Louis) Békésy's audiometer. *J. Acoust. Soc. Amer.*, 1962, 34(9, Pt. II), 1333-1336.—The audiometer that Békésy described in 1947 has permitted the measurement of auditory thresholds as a continuous function of frequency or of time, and simultaneously provided a measure of the S's variability. The clinical value of the instrument lies in part in the detailed

frequency characteristics of the threshold. In the laboratory, the principles of the audiometer have been incorporated in ways that have permitted new kinds of problems to be studied. Particular reference is made to masked audiograms as a function of frequency and continuous recovery curves after exposure to sound. (34 ref.)—*A. M. Small, Jr.*

4246. Jeffress, Lloyd A., & Blodgett, Hugh C. (U. Texas) Effect of switching earphone channels upon the precision of centering. *J. Acoust. Soc. Amer.*, 1962, 34(9, Pt. I), 1275-1276.—The precision of centering a noise signal in the head is improved by switching the earphone channels; either by commutating them, or by switching from a single channel for both ears to 1 channel for one ear and 1 for the other. Switching reduces both random and bias errors.—*A. M. Small, Jr.*

4247. Jeffress, Lloyd A., Blodgett, Hugh C., & Deatherage, Bruce H. (U. Texas) Effect of interaural correlation on the precision of centering a noise. *J. Acoust. Soc. Amer.*, 1962, 34(8), 1122-1123.—"Ss were asked to center a noise presented via earphones, by adjusting a delay line controlling interaural time differences. Various noise correlations were employed ranging from 1.00 to 0.10. Even in the latter case, which represents a signal to noise difference of -9.5 db the Ss were able to perform well above a chance level."—*A. M. Small, Jr.*

4248. Jeffress, Lloyd A., Blodgett, Hugh C., & Deatherage, Bruce H. (U. Texas) Masking and interaural phase: II. 167 cycles. *J. Acoust. Soc. Amer.*, 1962, 34(8), 1124-1126.—"Masking level differences obtained for 167 cps are presented. Some involved shifting the phase of the signal through various angles, and other, shifting the noise in interaural time. Where the experimental conditions are comparable to Hirsh's (see 22: 4799) at 200 cps, the data agree very closely with his. The data obtained with various interaural time differences in the noise are shown to differ sharply from comparable data taken at 500 cps."—*A. M. Small, Jr.*

4249. Loeb, M., & Hawkes, G. R. (USA Medical Research Lab., Fort Knox, Ky.) Auditory intensity discrimination as a function of stimulus presentation method. *USA Med. Res. Lab. Rep.*, 1962, No. 542. ii, 13 p.—Relative differential intensive limens were obtained at 3 frequencies and 2 intensities for 3 stimulus patterns involving fluctuation of a steady tone and 3 patterns involving separate stimuli. The same observers were utilized in all cases; in Experiment I, signals were presented through earphones. Somewhat lower thresholds were obtained for fluctuating intensity patterns than for separate stimuli patterns, thresholds tended to be lower at the higher intensity level, and thresholds were lower for patterns allowing greater opportunity for comparison within the patterns. When similar thresholds were obtained for patterns presented through speakers (Experiment II), thresholds were smaller, the influence of intensity was smaller, and the influence of (presentation) pattern type was less consistent. Significance of the findings is discussed.—*USA MRL.*

4250. Loeb, Michel, & Hawkes, Glenn R. (USA Medical Research Lab., Fort Knox) Auditory intensity discrimination as a function of stimulus presentation method. *J. Acoust. Soc. Amer.*, 1962, 34(10), 1643-1647.—Relative differential intensive

limens were obtained at 3 frequencies and 2 intensities for 3 stimulus patterns involving fluctuation of a steady tone and 3 patterns involving separate stimuli. Somewhat lower thresholds were obtained for fluctuating intensity patterns than for separate stimuli patterns, thresholds tended to be lower at the higher intensity level, and thresholds were lower for patterns allowing greater opportunity for comparison within the patterns. When similar thresholds were obtained for patterns presented rather than earphones, thresholds were smaller, the influence of intensity was smaller, and the influence of (presentation) pattern type was less consistent.—*A. M. Small, Jr.*

4251. Raab, David H., & Osman, Eli. (Brooklyn Coll.) **Effect of masking noise on lateralization and loudness of clicks.** *J. Acoust. Soc. Amer.*, 1962, 34(10), 1620-1624.—The effects of monaural masking noise on loudness and on lateralization of clicks were compared for noise levels ranging between 35 and 65 db. sound pressure level. For different fixed levels of unmasked clicks, sound-pressure levels of the masked clicks were adjusted by the Ss to produce centered sound images. In a 2nd experiment, similar procedures were used to generate equal-loudness functions. For both loudness and lateralization, the effect of masking noise was greatest with high levels of noise and low intensities of click. In every case, the masking effect was greater for loudness than for lateralization.—*A. M. Small, Jr.*

4252. Raab, David H., & Osman, Eli. (Brooklyn Coll.) **Magnitude estimation of the loudness of clicks.** *J. Acoust. Soc. Amer.*, 1962, 34(10), 1658.—“Numerical estimations of the loudness of click stimuli were found to be a power function of sound pressure. The exponent (0.49) of the function is smaller than those previously reported in studies utilizing sustained tones or noises.”—*A. M. Small, Jr.*

4253. Riach, W., Elliott, D. N., & Reed, James, C. (Wayne State U.) **Growth of loudness and its relationship to intensity discrimination under various levels of auditory fatigue.** *J. Acoust. Soc. Amer.*, 1962, 34(11), 1764-1767.—Loudness growth as determined by the method of magnitude estimation and intensive differential thresholds were determined under normal conditions and under 3 levels of fatigue. Loudness growth differed from normal under all fatigue conditions and increased its rate as fatigue increased. While the intensive differential thresholds also differed from normal under all fatigue conditions there was no change in threshold as severity of fatigue increased.—*A. M. Small, Jr.*

4254. Sergeant, Russell L., & Harris, J. Donald. (USN Medical Research Lab., Groton, Conn.) **Sensitivity to unidirectional frequency modulation.** *J. Acoust. Soc. Amer.*, 1962, 34(10), 1625-1628.—Responses to a unidirectional frequency shift at 1500 cps at a 50-phon level using trained and untrained listeners are analyzed. A constant of a 5 cps change emerges indicating that sensitivity depends on a linear relationship between rate of change and stimulus duration. This constant is of the same order of magnitude as the traditional DL for pitch memory.—*A. M. Small, Jr.*

4255. Small, Arnold M., Jr., & Campbell, Richard A. (U. Iowa) **Temporal differential sensitivity for auditory stimuli.** *Amer. J. Psychol.*, 1962, 75(3), 401-410.—Using the method of constant stim-

ulus-differences, the study sought information regarding discrimination of auditorily presented temporal intervals for short durations. Inter-stimulus intervals and frequency were varied. 47 students of introductory psychology were used as Os. Temporal discrimination deteriorated with reduced duration. Discrimination was also poorer with shorter inter-stimulus intervals; however, inter-stimulus interval lost its influence with longer durations. Stimulus-frequency seemed important only at the shortest durations. Hypotheses that either loudness or a clock-mechanism is a primary determinant of temporal discrimination do not adequately explain the present data.—*R. D. Nance.*

4256. Stevens, S. S., & Guirao, Miguelina. (Harvard U.) **Loudness, reciprocity, and partition scales.** *J. Acoust. Soc. Amer.*, 1962, 34(9, Pt. II), 1466-1471.—“By the methods of magnitude estimation and magnitude production, judgments of softness were shown to be the reciprocal of judgments of loudness. The instruction to judge ‘distance’ produces the same results as instructions to judge softness. Attempts to partition a segment of the loudness continuum into equal-appearing intervals results in a systematic error that is greater the more variable are the judgments.”—*A. M. Small, Jr.*

4257. Teas, Donald C. (Central Inst. Deaf, St. Louis) **Lateralization of acoustic transients.** *J. Acoust. Soc. Amer.*, 1962, 34(9, Pt. II), 1460-1465.—The lateral position of the intracranial image resulting from acoustic transients presented via earphones is shown to vary with frequency content and sensation level (SL) as well as with interaural time differences. The data suggest that an anatomical substrate for a “timing signal,” if present at all in the auditory system, does not have its origin in the inner ear. The theoretical treatment suggests that the synchrony of the neural input may be a significant factor in localization.—*A. M. Small, Jr.*

4258. Ward, W. Dixon. (Subcommittee on Noise, 327 S. Alvarado, Los Angeles) **Effect of temporal spacing on temporary threshold shift from impulses.** *J. Acoust. Soc. Amer.*, 1962, 34(9, Pt. I), 1230-1232.—13 normal-hearing Ss were exposed to 60 high-intensity pulses presented at 4 different inter-pulse intervals. Results indicate that the temporary threshold shift (TTS) produced by 1-, 3-, and 9-sec. inter-pulse intervals are essentially equivalent. Less TTS was produced by the 30-sec. interval during the 1st minute of recovery, but by 5 min. after cessation of the pulses, this difference had nearly disappeared. This supports the hypothesis of Hirsh and Bilger that 2 separate fatigue or recovery processes are involved in TTS. It is concluded that total number of impulses is more important than exposure time per se in predicting TTS from impulse noise.—*A. M. Small, Jr.*

4259. Warren, Richard M. (Shimer Coll.) **Are “autophonic” judgments based on loudness?** *Amer. J. Psychol.*, 1962, 75(3), 452-456.—40 normal Os, age 18-40 years, estimated magnitudes of self-generated sounds. 3 different sounds were used. Results suggest that autophonic judgments are loudness-judgments rather than estimates of the “muscular effort” employed in producing the sound.—*R. D. Nance.*

4260. Zwicker, Eberhard. (Technische Hochschule, Stuttgart, Germany) **Direct comparison be-**

tween the sensations produced by frequency modulation and amplitude modulation. *J. Acoust. Soc. Amer.*, 1962, 34(9, Pt. II), 1425-1430.—Comparisons of the sensations produced by frequency- and amplitude-modulated octave-band noises were made by the method of adjustment. The results indicate a general correlation between the sensations produced by the 2 kinds of modulation. "Expressed in changes of level (ΔL) and shifts (Δz) along the critical-band function, ΔL seems to be equal to $C \cdot \Delta z$, where $C = 10$ dB/1.6 Bark [where "Bark" = 1 critical band]." A 2nd experiment shows the possibility of increasing and decreasing the sensation produced by amplitude modulation by adding in-phase or out-of-phase frequency modulation. The conclusion is reached that at least for noises the sensation produced by amplitude changes and that produced by frequency changes are based on the same mechanism.—*A. M. Small, Jr.*

4261. Zwislocki, J., Hellman, R. P., & Verrillo, R. T. (Syracuse U.) Threshold of audibility for short pulses. *J. Acoust. Soc. Amer.*, 1962, 34(10), 1648-1652.—"It is shown that the threshold of audibility for short pulses as a function of the number of pulses, the pulse-repetition rate and the pulse duration, can be accounted for by temporal summation in conjunction with the temporal changes of critical bands and the frequency response of the sound-transmitting system."—*A. M. Small, Jr.*

Speech Perception

4262. Kryter, Karl D. (Bolt Beranek & Newman, Cambridge, Mass.) Methods for the calculation and use of the Articulation Index. *J. Acoust. Soc. Amer.*, 1962, 34(11), 1689-1697.—In an attempt to make unnecessary speech-intelligibility testing, a procedure was developed (see 21: 3438) for calculating from physical and acoustical measurements made on a communication system a measure that is indicative of the intelligibility scores that would be obtained for that system under actual test conditions. This measure is called the "Articulation Index" (AI). Methods of calculating AI have been improved and elaborated to the point where several methods for its calculation, herein reported, can be proposed for use in the evaluation of most speech communication systems. (19 ref.)—*A. M. Small, Jr.*

4263. Kryter, Karl D. (Bolt Beranek & Newman, Cambridge, Mass.) Validation of the Articulation Index. *J. Acoust. Soc. Amer.*, 1962, 34(11), 1698-1702.—Although improvements and modification of the Articulation Index (AI) have been made over the years, it has not been generally accepted, perhaps because of insufficient evidence as to its validity. On the basis of studies reported in the literature and on new studies herein reported, it is shown that AI is a valid predictor of the intelligibility of speech under a wide variety of conditions of noise masking and speech distortion.—*A. M. Small, Jr.*

4264. Kryter, Karl D., Williams, Carl, & Green, David M. (Bolt Beranek & Newman, Cambridge, Mass.) Auditory acuity and the perception of speech. *J. Acoust. Soc. Amer.*, 1962, 34(9, Pt. I), 1217-1223.—The results of audiometric and speech tests of Ss with normal and different degrees of nerve-type hearing impairment are reported. Correlation regression coefficients were found between the hearing loss measured at a number of pure-tone

frequencies and the speech test results. These indicate that taking the average of the hearing loss at either 2000, 3000, and 4000 cps or at 1000, 2000, and 3000 cps provides a reasonably adequate rank-order indicator of the ability to understand speech. The relation between these results and other studies is discussed; it is suggested that some speech tests and methods of scoring that have been used in experiments of this type in the past introduce a bias that leads to an underestimation of the importance of auditory acuity at frequencies above 2000 cps.—*A. M. Small, Jr.*

4265. Sadler, V. (University Coll., London, England) Effect of succeeding vowel on consonant recognition in noise. *Lang. Speech*, 1961, 4(2), 133-138.—18 Ss were required to identify 23 consonants each presented in CV pairs with each of 5 vowels in white noise at a S/N ratio of 6 db. Overall articulation scores varied with the vowel used, and there was evidence of strong interaction between vowels and consonants. Judgments were also influenced by linguistic frequencies.—*A. E. Horowitz.*

PARAPSYCHOLOGY

4266. Dodds, E. R. Two concordant experiences coinciding with a death. *J. Soc. Psych. Res.*, 1962, 41(Whole No. 713), 337-346.—The author describes a brother's and sister's experiences of premonition in the death of their mother. The sister knew of her mother's serious illness, and on January 31, 1962 had fallen asleep, and awoke at 6:45 P.M. She immediately recited the de profundis (Catholic prayer for the dead), but it was not until the next day that she learned her mother had passed away the night before at 6:40 P.M. The brother likewise had fallen asleep and had awakened also to recite the prayer knowing his mother had died during this same hour. The author attributes this phenomena to ESP, "nothing new in this family."—*O. I. Jacobsen.*

4267. FitzHerbert, Joan. (Child Guidance Clinic, Chatham, Kent, England) Extra-sensory perception in early childhood. *Int. J. Parapsychol.*, 1961, 3(3), 81-91.—Telepathy is offered as a satisfactory explanation for such experiences as "the existence of what appear to be memories of events which occurred in very early life, of inherited memories, of certain apparently innate knowledge, and of the undoubted response of young children to unconscious emotional attitudes in their mothers."—*J. A. Freeman.*

4268. Fodor, Nandor. Sandor Ferenczi's psychic adventures. *Int. J. Parapsychol.*, 1961, 3(3), 49-59.—Recent correspondence with intimate friends, former associates, and the biographer of Ferenczi reveal several personal experiences of a psychic nature. Reference is made to conversations and letters between Ferenczi and Freud on this subject.—*J. A. Freeman.*

4269. Grad, Bernard; Cadoret, Remi J., & Paul, G. I. (McGill U.) An unorthodox method of treatment on wound healing in mice. *Int. J. Parapsychol.*, 1961, 3(2), 5-19.—An attempt to test the effect of the power of a self-styled "healer." 300 mice were randomly divided into 3 equal groups and a 4×8 -inch area of skin removed from each mouse. E (healer) held 1 group of mice (1 to a cage) between his hands for a 15-minute period twice daily. The 2nd group was held by different individuals

each day in the same manner, and the 3rd group was left undisturbed. $\frac{1}{2}$ the cages in each group were placed in paper bags with the top stapled together and $\frac{1}{2}$ in paper bags with tops open. After 16 days the difference in rate of wound healing between E's mice and the 2 other groups was significant at the .01 level (open bags only).—J. A. Freeman.

4270. Slomann, Aage. A projected dictionary of parapsychology. *J. Soc. Psych. Res.*, 1962, 41 (Whole No. 712), 295-299.—Parapsychologists from the different countries should agree on terms in scientific use in parapsychology, and a dictionary covering these terms is needed. At the Utrecht conference a committee was appointed for this purpose but failed, since the English and American leading parapsychologists could not agree on basic terminology. Various examples of terms in a dictionary and encyclopedia are cited as evidence of great difference in defining terms. Readers are requested to voice their opinions on this subject.—O. I. Jacobsen.

4271. Sommer, Robert; Osmond, Humphry, & Pancyr, Lucille. (U. Alberta) Selection of twins for ESP experimentation. *Int. J. Parapsychol.*, 1961, 3(4), 55-69.—The suggestion is made that twins are a class of people who have unusually strong affect and/or special closeness to each other and, because of this, are predisposed to having ESP experiences. In the search for good Ss for ESP experimentation, therefore, twins should be a rewarding source.—J. A. Freeman.

ENVIRONMENTAL EFFECTS

4272. Arnhoff, Franklyn N., & Leon, Henry V. (Miami U.) Sensory deprivation: Its effects on human learning. *Science*, 1962, 138(Whole No. 3543), 899-900.—The rote learning ability of human Ss under conditions of sensory deprivation for 48 hours was compared with results for a control group. The performance of the 2 groups was essentially the same. No significant facilitation or decrement in performance was noted, and in no instance were hallucinations, delusions, or other unusual phenomena reported.—*Journal abstract*.

4273. Frankenhaeuser, M., Sterky, K., & Jaerpe, G. (U. Stockholm, Sweden) Psychophysiological relations in habituation to gravitational stress. *Percept. mot. Skills*, 1962, 15(1), 63-72.—Habituation to gravitational stress was studied in 4 Ss, who received the same treatment in a human centrifuge on 6 separate sessions. The results showed, that at consecutive trials, there was a progressive decrease in adrenaline excretion and in subjective emotional reactions. Furthermore, the intensity of the subjective reaction was almost directly proportional to the amount of adrenoline excretion. Systematic changes in noradrenaline excretion and heart rate were not observed during the course of experiments.—N. H. Guertin.

4274. Goldberger, Leo, & Holt, Robert R. A comparison of isolation effects and their personality correlates in two divergent samples. *USAF ASD tech. Rep.*, 1961, No. 61-417. v, 46 p.—Findings are reported from a pair of replicated studies using male Ss and conditions of perceptual isolation (sensory deprivation) similar to those used in the McGill studies. The 1st group consisted of 14 undergraduates; the 2nd group consisted of 16 unemployed

actors. All Ss were put through an intensive multi-form assessment, which included a battery of objectively scorable tests, plus qualitative data from projective techniques, interview, and autobiography. Reactions to the altered sensory environment, which the Ss experienced for 8 hours, were judged from the typed protocols of their verbalizations during the period of confinement. In all, 14 dependent variables and their syndromes were related to the variables from the personality assessment. First the general group phenomena, then the patterns of correlations are discussed, with the special emphasis on those that were replicated.—*USAF ASD*.

4275. Goldberger, Leo, & Holt, Robert. Studies on the effects of perceptual alteration. *USAF ASD tech. Rep.*, 1961, No. 61-416. iv, 20 p.—This is a report of 3 separate studies which explored facets of sensory alteration (sensory deprivation). One study focussed on the role of a diffuse, homogeneous visual field (Ganzfeld) in promoting visual images; the 2nd compared performance on a cognitive test battery immediately following 8 hours of perceptual isolation with performances under a drug (100 gamma of LSD-25) and a placebo condition; the 3rd study dealt with the effects upon cognitive functioning of an 8-hour isolation experience during which constant auditory vigilance was required of the Ss.—*USAF ASD*.

4276. Grissom, Robert J., Suedfeld, Peter, & Vernon, Jack. (Princeton U.) Memory for verbal material: Effects of sensory deprivation. *Science*, 1962, 138(Whole No. 3538), 429.—Memory retention of a short verbal passage did not change significantly in Ss who were isolated in a dark and soundproof room for 24 hours between the immediate recall test and the terminal recall test. A significant decrease in performance was noted in the control Ss who went about their everyday activities during the 24-hour period after acquisition.—*Journal abstract*.

4277. Guedry, Fred E., Jr., Kennedy, Robert S., Harris, Charles S., & Graybiel, Ashton. Human performance during two weeks in a room rotating at three RPM. *USN Sch. Aviat. Med. NASA jr. res. Rep.*, 1962, Proj. MR005.13-6001, Subtask 1, Rep. No. 74; NASA Order R-47. 26 p.—4 men were tested before, during, and after being rotated at 3 RPM for 2 weeks in the Pensacola Slow Rotation Room. The men also lived in the room preceding the commencement of the rotation. Tests of intellectual and physiological function were included. The principal finding was that no serious psychological or physiological deficit was detected during 2 weeks of rotation or during the subsequent readaptation to normal environment. The only test showing pronounced deterioration of performance at the beginning of rotation and upon returning to normal environment was the Graybiel-Fregly Posture Test. This means that any task requiring ordinarily difficult locomotion would be disturbed at these critical intervals. Ordinary walking with adequate visual reference was not so obviously affected. Results are discussed in relation to: problems of rotating space stations, the vestibular system, and experiments involving optically distorted visual information. (30 ref.)—*USN SAM & NASA*.

4278. Hixson, W. Carroll, & Niven, Jorma I. Frequency response of the human semicircular

canals: II. Nystagmus phase shift as a measure of nonlinearities. *USN Sch. Aviat. Med. NASA joint res. Rep.*, 1962, Proj. MR005.13-6001, Subtask 1, Rep. No. 73; NASA Order R-37. 17 p.—The existence of nonlinearities in the steady-state response of the oculovestibular system to sinusoidal angular acceleration is demonstrated by evaluation of corneo-retinal potential recordings obtained at rotation frequencies of 0.002 to 0.20 cps with peak acceleration levels ranging from 10 to 80 deg/sec.² The experimental and theoretical considerations involved in using the nystagmus transition technique to study these nonlinearities are discussed, and an illustrative application of their quantification is presented.—*USN SAM & NASA*.

4279. Human Resources Research Office. Collected papers related to the study of the effects of sensory deprivation and social isolation. *HumRRO res. Memo.*, 1962, Task Pioneer VI (Endorse). 42 p.—A collection of 8 Project Endorse studies to serve as background and perspective for Human Resources Research Office reports in preparation and for researchers in general in the area of sensory and social deprivation. (99 ref.)—*R. Tyson*.

4280. Leiderman, Herbert P. (Harvard Medical School) Man alone: Sensory deprivation and behavioral change. *Correct. Psychiat. J. soc. Ther.*, 1962, 8(2), 64-73.—A general review of findings which indicate that man requires adequate sensory and social stimulation for maintaining normal psychological and physiological functioning. Inadequate supply of such stimuli may result in mental aberrations or general impairment of mental processes, including increased susceptibility to suggestion.—*L. R. Witt*.

4281. Murphy, D. B., & Myers, T. I. (Human Resources Research Office, Monterey, Calif.) Occurrence, measurement and experimental manipulation of visual "hallucinations." *Percept. mot. Skills*, 1962, 15(1), 47-54.—Frequency and "complexity" of visual sensations were measured under sensory deprivation. $\frac{1}{2}$ the sample were given a short Rorschach prior to the deprivation study. The other $\frac{1}{2}$ had no Rorschach but, like the Rorschach group, were divided into 2 groups, with one receiving "encouraging" and the other "discouraging" instructions. Encouraging instructions, but not the pre-testing, was related to more frequent and more complex reporting of sensations. A plea is made for better measurement and use of controls and standard conditions for sensory deprivation studies.—*W. H. Guertin*.

4282. Walters, Cathryn; Shurley, Jay T., & Parsons, Oscar A. (VA Hosp., Oklahoma City) Differences in male and female responses to underwater sensory deprivation: An exploratory study. *J. nerv. ment. Dis.*, 1962, 135(4), 302-310.—8 female and 8 matched male Ss were observed in an underwater sensory deprivation study and interviewed following it in an effort to determine differences in responses as a function of the sex of the S and that of the interviewer. Results showed that "males tended to be less introspective and more stimulus-oriented than females." The social sexual role of the interviewer also affected the reports obtained.—*N. H. Pronko*.

4283. Ziskind, Eugene, & Augsburg, Theodore. (U. Southern California, Los Angeles) Hallucinations in sensory deprivation: Method or madness? *Science*, 1962, 137(Whole No. 3534), 992.—10-minute observations of visual fields in binocularly patched Ss, and self-observation for dreams yielded visual imagery similar to sensory deprivation hallucinations. The latter probably arise from fragments of normal imagery whose origins are unrecognized because of reduced awareness.—*Journal abstract*.

4284. Zubek, J. P., Aftanas, M., Hasek, J., Sansom, W., Schludermann, E., Wilgosh, L., & Winocur, G. (U. Manitoba) Intellectual and perceptual changes during prolonged perceptual deprivation: Low illumination and noise level. *Percept. mot. Skills*, 1962, 15(1), 171-198.—42 Ss were placed individually in an isolation chamber. Of this sample, 29 Ss endured isolation for 7 days. A group of 40 ambulatory and a group of 40 recumbent control Ss were also given the same tests at the same time intervals. Significant impairments were found on 8 of the 12 tests of the intellectual battery. Little or no relationship seemed to exist between degree of intellectual impairment and duration of isolation. Significant impairments were found on 5 of the 8 perceptual tests. Ss were also less sensitive to pain. Hallucinatory-like experiences were found to be infrequent.—*W. H. Guertin*.

SLEEP & FATIGUE

4285. Clarke, David H. (U. California, Berkeley) Strength recovery from static and dynamic muscular fatigue. *Res. Quart. Amer. Ass. Hlth. Phys. Educ. Recr.*, 1962, 33(3), 349-355.—30 university students were each given 2 types of local fatiguing exercise utilizing a spring-loaded hand ergograph. 6 min. of dynamic contractions at the rate of 30 per min. caused strength to decline from an initial value of 45.7 kg. to a steady-state value of 27.6 kg. The $\frac{1}{2}$ -time (rate of decline) was 89 sec. The corresponding figures for 2 min. of continuous static exercise were 46.9 kg., 15.8 kg., and 38 sec. Mathematical analysis of these fatigue curves confirmed the results of others. The progress of recovery was observed for 10 min. A 2-component exponential equation accounted for the observed progressive return of strength. However, the rate parameters were quite different in the 2 curves; recovery was much faster and followed a different pattern after static exercise.—*Journal abstract*.

4286. Corcoran, D. W. J. (Medical Research Council, Cambridge, England) Noise and loss of sleep. *Quart. J. exp. Psychol.*, 1962, 14(3), 178-182.—2 experiments are reported in which human performance was compared under continuous 90 db. white noise, after loss of sleep, under a combination of the 2, and under appropriate control conditions. The results suggest that noise is effective in reducing the deterioration in performance, characteristic of loss of sleep. The relevance of the result to the arousal theory of loss of sleep is discussed.—*Journal abstract*.

4287. Fol'bert, G. V. et al. (Eds.) Voprosy fiziologii protsessov utomleniia i vosstanovleniia. [Problems in the physiology of the processes of fatigue and restoration.] Kiev, USSR: Ukraine SSR Academy of Sciences, 1958. 244 p.—This collection

of articles is devoted to studies on: (a) fatigue and restoration in the organism in mental and physical activity and (b) those conditions in which fatigue leads to pathological changes.—*I. D. London.*

MOTIVATION & EMOTION

4288. Abelson, Robert P., & Sermat, Vello. (Yale U.) **Multidimensional scaling of facial expressions.** *J. exp. Psychol.*, 1962, 63(6), 546-554.—30 women gave 9-point rating scale judgments of the dissimilarity of emotional expression of each of 78 pairs of facial poses formed from combinations of 13 diverse stimuli of the Lightfoot Series. The dissimilarity ratings were converted to interstimulus distances. These findings were compared with the distances one would expect on the basis of the 3 Schlosberg scales of facial expression. Concluded that a 2-dimensional system would appear to be adequate: pleasant-unpleasant and tension-sleep, or perhaps a slight variant of the latter.—*J. Arbit.*

4289. Bryan, J. H., & Carlson, P. V. (U. California, Los Angeles) **Spontaneous activity and food deprivation in human subjects.** *Percept. mot. Skills*, 1962, 15(1), 123-126.—The purpose of this study was to test the hypothesis that one characteristic effect of hunger deprivation is to increase the level of spontaneous activity. 5 men were deprived of food for a minimum of 89 hr., while 2 other adults served as control Ss. The number of squares entered in an "open-field" during a 15-min. period, twice a day, was used to measure spontaneous activity. Comparison of the control and the experimental groups failed to demonstrate significant differences in spontaneous activity.—*W. H. Guertin.*

4290. Duffy, Elizabeth. (U. North Carolina) **Activation and behavior.** New York: Wiley, 1962. xvii, 384 p. \$7.95.—This book presents a group of interrelated hypotheses in regard to "activation" based in the main upon studies of muscle tension, EEG, electrical resistance of the skin, and such other measures of autonomic reactivity as heart rate, blood pressure, respiration rate, etc. 6 chapters are devoted to a discussion of the concept of activation, 2 chapters to the effects of variations in activation upon sensory and performance measures, and 3 chapters to the effects of individual differences in activation particularly related to the behavioral correlates of these individual differences. (41-page bibliogr.)—*J. Arbit.*

4291. Frijda, Nico H., & Philipszoon, Els. (U. Amsterdam, Netherlands) **Dimensions of recognition of expression.** *J. abnorm. soc. Psychol.*, 1963, 66(1), 45-51.—Ratings of 30 facial expression photographs by 12 Ss on 22 bipolar scales were intercorrelated and subjected to factorial analysis. 4 factors of expressive meaning were obtained; these were labeled pleasantness-unpleasantness, naturalness and submission-artificiality and condescension, intensity of expression-control of expression, and attentional activity-disinterest. Correlating these factors with measures of the facial features resulted in meaningful relationships of each expressive meaning factor with 1 or more of the facial feature measurements. Results were compared with those from other studies and discussed in relation to a theory of emotion and of its recognition.—*Journal abstract.*

4292. Guthrie, Edwin Ray. **The psychology of human conflict: The clash of motives within the**

individual. Gloucester, Mass.: Peter Smith, 1962. 408 p. \$4.25 (paper).—A paperback edition of a book originally published in 1938.—*C. T. Morgan.*

4293. Skawran, P. R. **Entwicklungstendenzen in der Geschichte der modernen Gefühlstheorien.** [Developmental tendencies in the history of modern theories of emotion.] *Psychol. Rdsch.*, 1962, 13(4), 256-269.—Emotion is no longer seen as an isolated phenomenon but a phenomenon related to the persistent personality dimension of endothymic ground. Wundt's 3-dimensional theory of emotions can still be recognized in the 3 polar basic forms of endothymic ground. There is in addition the tendency to conceptualize these basic forms as energy vectors.—*W. J. Koppits.*

PSYCHOMOTOR TASKS

4294. Adams, Jack A. (U. Illinois) **Test of the hypothesis of psychological refractory period.** *J. exp. Psychol.*, 1962, 64(3), 280-287.—The psychological refractory period (the response to the 2nd of 2 closely spaced stimuli is slower) has received 2 explanations: (a) a central process in which time must be allowed for processing the 1st stimulus before the 2nd can be undertaken and (b) an expectancy statement to the effect that past experience with the random array of interstimulus intervals employed causes S to expect a longer delay and he is not optimally ready to respond when there is a short interval. Using a 2-dimensional, bisensory discrete tracking task, and manipulating the interstimulus intervals, support was found for the expectancy hypothesis. (21 ref.)—*J. Arbit.*

4295. Ammons, R. B., & Ammons, C. H. (Montana State U.) **Motor skills bibliography: XXX. Psychological Abstracts, 1957, Volume 31, First Half.** *Percept. mot. Skills*, 1962, 15(1), 255-258.—One of a continuing series of sequential unannotated bibliographies.—*W. H. Guertin.*

4296. Amrom, S. D. (USSR Acad. Sciences) **Issledovanie parametrov tselenapravlennoi dvigatel'noi reaktsii.** [Parameters of a purposeful motor reaction.] *Zh. vyssh. nervn. Deiatel.*, 1962, 12(1), 54-62.—Ss (not described) were asked to react to an auditory stimulus by pressing a rubber balloon until the mark 50 was reached on the scale of the reflexometer. This was then repeated with the scale being covered. This is called the method of conditioned level. Three indices of motor reaction were recorded: strength of the pressure, time of the pressure, and the reaction time. The motor reactions obtained with covered scale are related to different functional states of the central nervous system: the reaction exceeding the level is observed when the excitatory process prevails over the inhibitory one; the exact response, when both nervous processes are balanced; and a diminished response, when the inhibitory process predominates.—*A. Cuk.*

4297. Bartz, Albert E. (U. Arizona) **Eye-movement latency, duration, and response time as a function of angular displacement.** *J. exp. Psychol.*, 1962, 64(3), 318-324.—"The present research was initiated with two purposes in mind: (a) to determine the speed of seeing in a complex visual task (Exp. I) and (b) to isolate and measure the various components of the total response (initial

latency, travel time of the eye, and the response time for interpreting the signal). Results of Exp. I showed that RT increased as the angle from the center line of regard increased. There was no significant difference between pairs of means for right and left sides. It was also found that response time increased as the number of possible signals increased. In Exp. II, the time required for each of the three components of the response increased as the angle increased. Several interpretations of the positive relationship between angle and the time required for S to make his vocal response after his eyes had reached the signal were considered.—*J. Arbit.*

4298. Brichcin, Milan. Vliv akustického podnětu na pohotovost, rychlost a trvání volní reakce. [Effect of acoustical stimulus on the promptness, speed and duration of voluntary reaction.] *Acta U. Carolinae, Ser. phil. hist.*, 1961, No. 1, 55-77.—A detailed report of studies made from various aspects: influence of stimulus intensity, changes in stimulus intensity, and repetition of stimulus.—*H. Bruml.*

4299. Brickenkamp, R. (Essen-Werden, Mollenberg 1) Experimentelle Untersuchung zur Beeinflussbarkeit des Reaktionsverhaltens. [Experimental study regarding the effects of reaction conditions.] *Psychol. u. Praxis*, 1962, 6(1), 14-20.—In a light-stimuli presentation experiment the experimental group was told that improvement was expected during a 2nd performance since the 1st performance had been inadequate. The control group repeated the task with the same instructions as given initially. It was concluded that the changed instructions had the effect of reducing errors and reaction time significantly.—*H. Roemmich.*

4300. Broadbent, D. E., & Gregory, Margaret. (Applied Psychology Research Unit, Cambridge, England) Donders' B- and C-reactions and S-R compatibility. *J. exp. Psychol.*, 1962, 63(6), 575-578.—Donders found that the reaction time to a stimulus when 2 were presented and each required a different response is longer than the reaction time to a stimulus when the other randomly occurring stimulus required that no response be made. The authors hypothesized that this finding might be understood on the basis of S-R compatibility. Using both verbal and tactual stimuli with S-R compatibility (S repeated the stimulus word or moved the finger which was stimulated) or S-R less compatible (visual stimulus required finger response, and vice versa) found no reaction time difference under the former condition while the latter condition showed the classic difference between the b- and c-conditions.—*J. Arbit.*

4301. Chuprikova, N. I. (Inst. Psychology, Acad. Pedagogical Sciences, Moscow, USSR) O lokal'nom tormozhenii afferentnykh impul'satsii pod vlianiem slovesnykh razdrazhitelei. [Local inhibition of afferent impulses under the influence of verbal stimuli.] *Zh. vyssh. nervn. Deiatel.*, 1962, 12(2), 229-236.—Ss were instructed to react to combinations of light flashes under conditions of different verbal instructions. It was found that verbal stimuli selectively inhibit that part of direct stimulation which is superfluous according to preliminary instructions. Thus, if a successive series of lamps producing bright and dim flashes is presented to the Ss and they memorize, according to instructions, only the location and the sequence of the dim flashes, a state

of lower excitation is observed at the cortical points corresponding to bright flashes.—*A. Cuk.*

4302. Davis, R. (U. Reading, England) Choice reaction times and the theory of intermittency in human performance. *Quart. J. exp. Psychol.*, 1962, 14(3), 157-166.—1 visual signal, drawn from 2 equiprobable alternatives, was followed at a variable interval by a similar signal, also drawn from 2 equiprobable alternatives. The relationship between reaction time to the 2nd signal and the interval between signals was studied under the following conditions: (a) Ss were trained from the beginning to regard the 1st signal as irrelevant. (b) Ss were asked to report on the nature of the 1st signal after they had responded to the 2nd. The interval between signals was 1 of the 5 values, 50, 100, 150, 200, 250 msec. In the "regular interval" situation the same interval was used over a block of 20 trials. In the "random interval" situation the values of the interval were randomly arranged, with equal frequency within each block of 20 trials. The results showed: (a) In the random interval situation there was a definite disturbing effect of the 1st signal on the reaction time to the 2nd, despite the fact that Ss were trained to disregard the 1st signal. However, the delays in reaction time were significant only at the shortest interval, 50 msec. (b) In the regular interval situation this disturbing effect was not evident. (c) The additional requirement of having to report on the nature of the 1st signal produced no consistent increase in reaction time to the 2nd signal. Some implications of these results for the conception of the human operator as a channel of limited capacity are discussed.—*Journal abstract.*

4303. Fehrer, Elizabeth, & Biederman, Irving. (Brooklyn Coll.) A comparison of reaction time and verbal report in the detection of masked stimuli. *J. exp. Psychol.*, 1962, 64(2), 126-130.—"In the present study, we have compared the accuracy of two measures, reaction time and verbal report, in the detection of an event subjected to retroactive masking. A 5-msec. darkening of an otherwise steadily illuminated area was followed, after delays varying from 0 to 75 msec., by a 100-msec. illumination of two adjoining areas. At certain critical delays at which verbal detection of the test stimulus was little above chance accuracy, RT to the darkening of the test stimulus was not affected by the delayed presentation of the masking lights. Compared with verbal report, therefore, RT provided a far more accurate measure of the presence of the masked stimulus event."—*J. Arbit.*

4304. Gray, R. K., Start, K. B., & Walsh, A. (U. Western Australia) Relationship between leg speed and leg power. *Res. Quart. Amer. Ass. Hlth. Phys. Educ. Recr.*, 1962, 33(3), 395-399.—With the previous development of a new test of leg power based on scientific principles, the problem of the components of the term muscular power was investigated. A test of leg speed using the bicycle ergometer was refined and had a test-retest reliability 0.969 when subsequently used on the experimental sample of 62 adult males. The factors of leg speed and leg power were then compared and a correlation of +0.470 was established. This was mathematically lower than figures relating speed and power obtained by previous researches in this field and was probably

due to the differences in the criterion measures together with sample and experimental error.—*Journal abstract.*

4305. Hellebrandt, F. A., & Waterland, Joan C. **Expansion of motor patterning under exercise stress.** *Amer. J. phys. Med.*, 1962, 41, 56-66.—Progressively increasing exercise stress evokes an orderly expansion of the motor response typical of the individual. Young adults exerting all-out effort exhibit relative functional decortication; response to extensive stimuli diminishes and behavior becomes stereotyped and automatic. The will to continue fails before dominantly suppressive reactions are aroused. Recruitment of reserve motor units is effected by augmenting the sensory input achieved through orderly automatic muscle-response expansion.—H. J. P. Schubert.

4306. Hellebrandt, F. A., & Waterland, Joan. **Indirect learning: The influence of unimanual exercise on related muscle groups of the same and the opposite side.** *Amer. J. phys. Med.*, 1962, 41, 45-55.—Practice limited to a muscle group increases the performance also of the ipsilateral antagonist and the contralateral agonist-antagonist. Observation of another exercising yielded a measurable influence of the O's subsequent performance.—H. J. P. Schubert.

4307. Helson, Harry, & Steger, Joseph A. (Kansas State U.) **On the inhibitory effects of a second stimulus following the primary stimulus to react.** *J. exp. Psychol.*, 1962, 64(3), 201-205.—"An earlier finding that a light following a sound or a sound following a light after an interval of 75 msec. lengthened RT to the stimulus first presented was verified in the present experiment in which the stimuli were both visual. RT to S_1 was significantly increased when S_2 followed S_1 at intervals ranging from 10 to 170 msec. with the maximum effect occurring from 40 to 140 msec. . . . While RT with S_2 present decreases with practice, the greater improvement of control Ss as compared with experimental Ss shows that the inhibitory effect of S_2 on S_1 is not completely negated by 360 repetitions. . . . While the individual differences and results of practice seem to argue in favor of attitudinal factors as responsible for the effect, other facts argue against this explanation. Two hypotheses were discussed but neither seems completely satisfactory to explain all the facts."—J. Arbib.

4308. Kroll, Walter. (Fort Hays Kansas State Coll.) **Reliability of a selected measure of human strength.** *Res. Quart. Amer. Ass. Hlth. Phys. Educ. Recr.*, 1962, 33(3), 410-417.—5 trials spaced a minute apart were secured on 50 male Ss 3 days in succession on an apparatus designed to isolate action of the right wrist flexor muscle group. Reliability of measurement was assessed through the intraclass correlation technique. Although an acceptable level of reliability was obtained ($R = .93$), nonpertinent factors apparently intruded. These were tentatively identified as a trial effect due to depletion of energy reserves for strength exertion, and a day effect due to either strength development, a learning effect, or a combination of strength development and learning effects. Consideration of such factors in measurement programs was noted.—*Journal abstract.*

4309. Morin, Robert E., & Forrin, Bert. (U. Arizona) **Mixing of two types of S-R associations**

in a choice reaction time task. *J. exp. Psychol.*, 1962, 64(2), 137-141.—2 types of S-R associations were distinguished: (a) Type N associations (numeral-numeral pairs) normally produce independence of choice RT and transmitted information and (b) Type D associations (symbol-numeral pairs) in which choice RT is a positive linear function of transmitted information. The effects of mixing these 2 types upon the RT-transmitted information function was investigated. The results of the study appear to limit the generality of the proposition that RT for Type N associations is independent of the informational properties of the task.—J. Arbib.

4310. Pierson, William R., & O'Connell, Eugene R. (California Coll. Medicine, Los Angeles) **Age, height, weight, and grip strength.** *Res. Quart. Amer. Ass. Hlth. Phys. Educ. Recr.*, 1962, 33(3), 439-443.—This study recorded the age, height, weight, and grip strength of 299 healthy adult males, representing college students newly enrolled in a body conditioning class, college athletes, recruit policemen, and policemen. Analysis of the data showed that for men in condition and within the limits of the study, grip strength is significantly related to weight but not to height or age.—*Journal abstract.*

4311. Raab, David, & Fehrer, Elizabeth. (Brooklyn Coll.) **Supplementary report: The effect of stimulus duration and luminance on visual reaction time.** *J. exp. Psychol.*, 1962, 64(3), 326-327.—Flash duration ranged from 0.5 to 20 msec.; luminance from 0.3 to 3000 ft.L. For the 2 highest luminances, duration is unrelated to RT over the entire range studied. For the 2 lowest luminances, RT is an accelerated function of flash duration. The findings are discussed in terms of critical duration and phenomenal brightness.—J. Arbib.

4312. Raab, David H. (Brooklyn Coll.) **Effect of stimulus-duration on auditory reaction-time.** *Amer. J. Psychol.*, 1962, 75(2), 298-301.—Simple reaction-time (RT) to a noise burst was measured. Noise stimuli were produced by a Grason-Stadler 455B noise generator and were delivered to S by means of an earphone. Testing continued for 12 days. Ss were 3 undergraduate students and the author. All were well practiced before data were recorded. 2 intensities of noise were used and duration varied between 2 and 100 msec. RT decreased with increasing duration, reaching a minimum in approximately $\frac{1}{2}$ the duration required for full growth of loudness. "The trading function which relates intensity and duration depends on the performance being tested."—R. D. Nance.

4313. Royce, Joseph. (U. California, Berkeley) **Force-time characteristics of the exertion and release of hand grip strength under normal and fatigued conditions.** *Res. Quart. Amer. Ass. Hlth. Phys. Educ. Recr.*, 1962, 33(3), 444-450.—A recording, spring-loaded hand ergograph was used to record force-time relationships as 32 young men were tested on a hand dynamometer. Exponential equations were used to describe the changes in hand grip force during development and release. Stretch reached $\frac{1}{2}$ of its maximal value in .08 sec. and $\frac{3}{4}$ in .15 sec. During release, the force dropped to the halfway point in .04 sec. and to the $\frac{3}{4}$ point in .06 sec. Under conditions of fatigue the rate of buildup of muscular

force decreased 50%, and the rate of release decreased 150%.—*Journal abstract.*

4314. Schepers, J. M. A components analysis of a complex psychomotor learning task. *Psychol. Afr.*, 1962, 9, 294-329.—The test scores of 150 South African Air Force pupil pilots on the Portable Hand-Foot Reaction test are analyzed. The testing situation is described. The pupils were also given 2 tests of mental ability. The components, elementary and principal, of the performance and error scores of the RT test are analyzed and presented with equations, charts, and graphs. All learning may be reduced to transfer. Practice results in skill. More work needs to be done. A variety of tests should be analyzed to determine "the generality of components obtained with the RT and to test the invariance of the various parameters with respect to subject matter."—J. L. Walker.

4315. Simon, Stanford H. (Indiana U.) Response-mediated generalization with simple skeletal-motor responses. *J. exp. Psychol.*, 1962, 63(5), 458-463.—"On the basis of current S-R theory, including assumptions concerning the functions of response-produced stimuli, it was predicted that response-mediated generalization (a) can occur with simple skeletal-motor responses, (b) will be greater for one group of Ss than another if the first group has more pairings of the mediated response with the mediating response, and (c) will be greater for one group of Ss than another if the first group has an additional stimulus occurring contiguously with the mediating response. . . . The experimental results support the first prediction but not the third; no definite conclusion is drawn regarding the second prediction."—J. Arbit.

4316. Sipowicz, Raymond R., Ware, J. Robert, & Baker, Robert A. (USA Armor Human Research Unit, Fort Knox, Ky.) The effects of reward and knowledge of results on the performance of a simple vigilance task. *J. exp. Psychol.*, 1962, 64(1), 58-61.—80 army trainees monitored aperiodic and brief interruptions of a continuous light source under isolated conditions for a 3-hr. period. 1 group was paid on the basis of the signals they detected, 1 was informed of missed signals by a flash of light, 1 group had both knowledge of results (KR) and reward, and 1 group had neither. All experimental groups were better than the control, the group which had both KR and reward was best. Contrary to previous studies which found good and bad performers on a vigilance task, the present study finds that with the appropriate use of incentives the individual differences are attenuated.—J. Arbit.

4317. Strauss, P. S., & De Togni, G. R. (Picatinny Arsenal, Dover, N. J.) Limb sensitivity to wire barriers. *Percept. mot. Skills*, 1962, 15(1), 251-254.—The predetection forces applied to wire barriers by the limbs of blindfolded male Ss were measured and evaluated. Lower limb forces were found to be significantly larger than upper limb forces under a slow walk approach condition only. This difference is discussed in terms of ballistic vs. controlled movements and practical applications are mentioned.—W. H. Guertin.

4318. Thomas, D. R., & Lanier, W. G. (Kent State U.) A comparison of stimulus generalization of tendencies to respond and not to respond.

Psychol. Rec., 1962, 12, 61-65.—Human Ss were instructed to lift finger from telegraph key (response group) or to keep pressing it (no response group) when they perceived test stimulus as identical to original stimulus (525 Mu). The results supported hypothesis that with equivalent pregeneralization testing procedures "tendencies to respond and not to respond to a particular stimulus value generalize in a similar fashion." The data also indicate that discrimination training (used by others) is not essential in order to demonstrate this similarity.—R. J. Seidel.

4319. Witte, Fae. (San Jose State Coll.) Relation of kinesthetic perception to a selected motor skill for elementary school children. *Res. Quart. Amer. Ass. Hlth. Phys. Educ. Recr.*, 1962, 33(3), 476-484.—The purposes of this study were (a) to determine whether or not selected measures of kinesthesia, involving arm positioning, were related to measures of accuracy in ball rolling, and (b) to discover whether or not there were any differences between elementary school boys and girls in kinesthetic measures and in ball rolling ability measures. 47 1st- and 2nd-grade boys and girls were tested on 4 arm positioning measures and 2 ball rolling measures. The results of the study indicated that: (a) there is no significant relationship between ball rolling and positional measures of kinesthesia; (b) there are no real differences between boys and girls in their ability to accurately repeat positional measures of kinesthesia; and (c) boys are significantly superior to girls in their ability to manipulate accurately large and small balls, as measured by the tests used in this study. (23 ref.)—*Journal abstract.*

ATTENTION & SET

4320. Bergum, Bruce O., & Lehr, Donald J. The effects of pairing, rest intervals, signal rate, and transfer conditions on vigilance performance. *HumRRO res. Memo.*, 1962, Subtask Vigil IV. iii, 69 p.—7 studies probed the relationship between tasks, environmental factors, and vigilance performance to identify techniques for securing "peak operator efficiency in vigilance situations." Special significance is attributed to absence of "any vigilance effect employing a null-meter display."—R. Tyson.

4321. Botwinick, Jack, & Brinley, Joseph F. (National Inst. Mental Health) An analysis of set in relation to reaction time. *J. exp. Psychol.*, 1962, 63(6), 568-574.—Principal component analyses were performed on reactions times (RTs) in relation to preparatory intervals (PIs) in 6 different series. These data were discussed in terms of the hypothesis that various aspects of RT set are distinguishable, different in meaning, and independent. Set, as inferred from the relations between RT and PI, was independent of sense modality.—J. Arbit.

4322. Broadhurst, D. E. Attention and the perception of speech. *Scient. American*, 1962, 206(4), 143-151.—If an individual listens to 2 voice messages at one time, he usually understands only one. This indicates that the brain has an "attention mechanism" for selecting the desired information.—*Journal abstract.*

4323. Grings, W. W., Carlin, Sidney, & Appley, Mortimer H. (U. Southern California) Set, suggestion, and conditioning. *J. exp. Psychol.*, 1962, 63(5), 417-422.—"A set or tendency to anticipate

that stimulation will follow a verbal cue suggesting such stimulation is inferred from the magnitude of GSR to the cue. The experimental procedures for modifying the set are analogous to classical conditioning procedures, except that the reinforcing state of affairs is not applied directly to the test cues but is applied instead to a series of seven different cues. . . . Plots of magnitude of response to the critical test cues as a function of position in the reinforcement series showed an increase of response to both cues at the short training test point, then a decrease with further training. The principal change occurred for the feasible stimulus during the short series of reinforcements."—*J. Arbit.*

4324. Janke, Peter K. (Reed Coll.) The effects of a "compound set" on learning efficiency. *Amer. J. Psychol.*, 1962, 75(3), 445-451.—It was hypothesized that the negative component of the set would become less effective with time, as a result of non-reinforcement. Stimulus material consisted of 216 words varying in length from 2 to 10 letters. Ss were 20 college men. They were asked to respond to each word with a number from 1 to 9. Results are interpreted as supplying evidence for the operation of a compound set.—*R. D. Nance.*

4325. Mazumdar, A. K., & Chatterjee, T. K. Duration of attention and colour preference. *Psychol. Stud., Mysore*, 1962, 7(2), 11-15.—Experiment has shown a high correlation between duration of attention and color preferences.—*U. Pareek.*

LEARNING

4326. Cratty, B. J. (U. California, Los Angeles) Effects of intra-maze delay upon learning. *Percept. mot. Skills*, 1962, 15(1), 14.—42 university students learned to traverse a maze. A previously unexposed delay chamber was used to delay $\frac{1}{2}$ the Ss. No differences in traversal time to or after the delay point were found between E and C groups. Results failed to support the idea that a 20-sec. delay would introduce disorientation with slower traversal time.—*W. H. Guertin.*

4327. Fleishman, Edwin A., & Parker, James F., Jr. (Yale U.) Factors in the retention and relearning of perceptual-motor skill. *J. exp. Psychol.*, 1962, 64(3), 215-226.—2 groups differing in the amount of verbal guidance were given extended training on a highly complex tracking task. Subgroups matched for final proficiency were retested at various intervals up to 24 mo. These retention groups were further subdivided for retraining sessions under massed or distributed practice. One week later all Ss were retested. Retention is extremely high, even for no-practice intervals up to 24 mo. Variations in retention interval from 1 to 14 mo. are unrelated to retention performance. The most important factor in retention is the level of proficiency achieved during initial learning. The amount of verbal guidance is unrelated to retention. Retraining under distributed practice was superior to mass practice, but on retesting 1 week later no difference was noted. Retention appears more a function of specific task habits acquired than to ability traits developed prior to training. (15 ref.)—*J. Arbit.*

4328. Fox, Margaret G., & Lamb, Ethel. (State U. Iowa) Improvement during a nonpractice period in a selected physical education activity.

Res. Quart. Amer. Ass. Hlth. Phys. Educ. Recr., 1962, 33(3), 381-385.—This study investigated the reminiscence factor in learning softball skills by 7th-grade girls. Tests used to measure the skills were the repeated throw and bat for distance. Pretests were followed by an instructional unit of 10 lessons on softball skills. This was concluded with the post-test. 5 weeks elapsed and the tests were given again (1st retest). 17 weeks elapsed between the 1st retest and the 2nd retest. No softball skill practice intervened during either the short or the long nonpractice intervals. Mean gains were not significant for the 1st nonpractice interval but were significant for the 2nd nonpractice interval. On the basis of the data it was concluded that improvement in softball skill of bat for distance and repeated throws did occur during a long interval without practice. In the absence of other factors which could explain the improvement, it appears that reminiscence is more apt to occur after a relatively long nonpractice interval than after a short period of time. The phenomenon of reminiscence probably occurred in this instance with this group of 7th-grade girls.—*Journal abstract.*

4329. Fox, Margaret G., & Young, Vera P. (State U. Iowa) Effect of reminiscence on learning selected badminton skills. *Res. Quart. Amer. Ass. Hlth. Phys. Educ. Recr.*, 1962, 33(3), 386-394.—This study investigated the effects of the degree of original learning and the length of 2 nonpractice periods on reminiscence in badminton. 2 groups were used, one having 6 weeks of instruction, the other 9 weeks. The nonpractice periods were 6 weeks and 12 weeks. The wall volley and short serve tests were given at the beginning and end of the instructional periods and at the end of each nonpractice period. Reminiscence did occur in the wall volley skill during the 1st nonpractice interval for the group having 9 weeks of instruction and during the 2nd nonpractice interval for the group having 6 weeks of instruction. Reminiscence did not occur for either group on the short serve skill. (21 ref.)—*Journal abstract.*

4330. Jensen, Arthur R., Collins, Carter C., & Vreeland, Robert W. (U. California, Berkeley) A multiple S-R apparatus for human learning. *Amer. J. Psychol.*, 1962, 75(3), 470-476.—This electrical apparatus presents a variety of visual stimulus-objects in any desired sequence, limits S's responses by requiring him to press buttons varying in number and spatial arrangement, and delivers "feedback" on any desired schedule. Pictures of the apparatus are shown as well as a diagram of main components and of the wiring circuit.—*R. D. Nance.*

4331. Johnson, Ronald, & Thomson, Calvin. (San Jose State Coll.) Incidental and intentional learning under three conditions of motivation. *Amer. J. Psychol.*, 1962, 75(2), 284-288.—In the McGeogh and Irion definition of incidental learning, its operational meaning depends on adequacy of control of the set to learn. Materials used consisted of 2 lists of 10 nonsense syllables. Incidental material supposedly was of a "noxious" quality, that is, it constituted a distracting or interfering influence on intentional learning. Ss were 30 freshmen from introductory psychology. 10 Ss served at each of 3 motivation levels and worked in pairs. Incidental learning was measured by the frequency with which S later recognized the syllables learned

by his partner. Both the low and the medium motivation groups showed significant amounts of incidental learning. Low motivation was best for incidental learning; medium motivation facilitated intentional learning.—R. D. Nance.

4332. Kaufman, H., Smith, J., & Zeaman, D. (U. Connecticut) Tests of the generality of two empirical equations for motor learning. *Percept. mot. Skills*, 1962, 15(1), 91-100.—2 empirical equations written by Reynolds and Adams, describing pre-asymptotic pursuit rotor performance as a function of distribution and practice were tested both with the PR and the inverted-alphabet task. The equations described much of the data obtained in the experiments despite the difference in nature between the 2 tasks.—W. H. Guertin.

4333. Landsman, Howard J., & Turkewitz, Marvin. (City Coll. New York) Delay of knowledge of results and performance on a cognitive task. *Psychol. Rep.*, 1962, 11(1), 66.—A series of stimulus pairs was presented to 20 undergraduates who were required to choose the correct one of each pair. $\frac{1}{2}$ the Ss given knowledge of results immediately after each response learned faster than the half with a 6-sec. delay.—B. J. House.

4334. Lavery, J. J., & Suddon, F. H. (Defence Research Medical Lab., Toronto, Canada) Retention of simple motor skills as a function of the number of trials by which KR is delayed. *Percept. mot. Skills*, 1962, 15(1), 231-237.—The effect of trial-delay conditions on the acquisition and retention of 3 simple motor skills was investigated. The results indicated that within 30 trials, rate of acquisition is a function of number of trials by which knowledge of results is delayed; retention is not. If 90 trials are given, Ss in a 5-trial delay condition eventually reach the level of acquisition reached by the 0-trial delay group and they retain the skill better.—W. H. Guertin.

4335. Mandler, George; & Cowan, Philip A. (U. Toronto) Learning of simple structures. *J. exp. Psychol.*, 1962, 64(2), 177-183.—"Sixteen groups of 12 Ss each were required to learn the presence or absence of a checkmark associated with six pairs of nonsense syllables constructed out of three CVC syllables. The 16 groups differed in the structural relations among pairs of syllables and the presence or absence of checkmarks. . . . The results showed: (a) Number of checkmarks (or noncheckmarks) predicted the acquisition of structures, based apparently on discriminability of the checkmark-noncheckmark dichotomy. (b) Within three groups of structures with the same number of checkmarks, logical structure showed significant effects on acquisition. (c) The probability structure of the required responses (checkmarks) showed a striking effect on Ss' behavior. The Ss exhibited probability matching . . . in the absence of event matching."—J. Arbit.

4336. Moncrieff, John; Morford, W. R., & Howell, Maxwell L. (U. Alberta) Acquisition of elementary swimming skills. *Res. Quart. Amer. Ass. Hlth. Phys. Educ. Recr.*, 1962, 33(3), 405-409.—52 beginning swimmers, aged 5 to 11, were taught by the same instructor for 6 consecutive 25-min. swimming lessons. 1 group practiced 3 days a week for 2 weeks, and the 2nd group attended 2 classes a week. Each swimmer was tested each day to deter-

mine when he completed the skill achievements (head under water, vertical float, face float, back float, 5-yd. swim, 10-yd. swim). No statistically significant difference was found between the groups on the ability to perform the 6 elementary water skills. The lesson frequencies investigated did not influence the ability to perform these skills. Only 16% of the 5-, 6- and 7-year age group could swim 5 yards following 6 lessons. From the older group 8, 9, 10 years, 68% performed the swimming skills in 6 lessons. There appears to be some justification for changing the order of teaching elementary water skills.—*Journal abstract.*

Conditioning

4337. Adams, Henry E., Butler, Joel R., & Noblin, Charles D. (Louisiana State U.) Effects of psychoanalytically-derived interpretations: A verbal conditioning paradigm? *Psychol. Rep.*, 1962, 10, 691-694.—36 students performed in a verbal conditioning task which required selection of a pronoun to complete a sentence. The use of "I" was reinforced with the word "good" or "fine" for one experimental group, and with a psychoanalytically-derived interpretation of S's response for another experimental group. The control group received neutral sentences of equal length as reinforcements. Frequency of correct response increased significantly for the 2 experimental groups but not for the control group. Latency of response was significantly decreased by affirmatory words but increased by the interpretative sentences, suggesting that these might be noxious stimuli.—B. J. House.

4338. Champion, R. A. (U. Sydney) Stimulus-response contiguity in classical aversive conditioning. *J. exp. Psychol.*, 1962, 64(1), 35-39.—The short-latency eyeblink and long-latency GSR were conditioned simultaneously with tone as CS and air puff as UCS. A forward CS-UCS interval of 400 msec. and a backward UCS-CS interval of 1200 msec. were used in separate groups to favor contiguity of CS with eyeblink and GSR, respectively. Eyeblink acquisition was superior with the forward interval and inferior with the backward interval when compared with that of the GSR. The results support the hypothesis that CS-UCR contiguity is an important factor in the initial stages of classical aversive conditioning.—J. Arbit.

4339. Chatterjee, Bishwa B., & Eriksen, Charles W. (U. Illinois) Cognitive factors in heart rate conditioning. *J. exp. Psychol.*, 1962, 64(3), 272-279.—The conditioning and semantic and color generalization of the heart rate was studied as a function of the Ss' expectancies. Clear evidence of heart rate conditioning occurred only when S could verbalize the relationship between CS and UCS. Ss told there would be no more shocks showed almost a complete loss of the CR with no nonreinforced presentations of CS. Heart rate responses to nonconditioned stimuli also varied as a function of expectancy. No semantic or color generalization was found, and this is in keeping with the fact that Ss did not include such generalized expectancies in their verbalizations.—J. Arbit.

4340. DeWolfe, Alan S. (VA Hosp., Hines, Ill.) Extinction of conditioned verbal responses. *Amer. J. Psychol.*, 1962, 75(2), 265-270.—It has been demonstrated that acquisition and extinction of verbal be-

havior parallel in a number of ways the instrumental responses developed in animals. Here, schedule of reinforcement and method of extinction were varied simultaneously. 3 schedules of reinforcement (100%, 75%, and 50%) were used during acquisition. Procedures used during extinction were: negative reinforcement of the response, omission of reinforcement, and reinforcement of a conflicting response. Ss were 180 men and women from undergraduate psychology classes. Using stimulus cards, Ss formed sentences using 1 of 6 pronouns. Reinforcement during acquisition consisted of the word "good" spoken by E in a neutral tone. There was no significant difference in acquisition among the groups with varying proportions of reinforcement. During extinction, negative reinforcement gave the largest decrement and omission of reinforcement the slowest decline.—R. D. Nance.

4341. Edwards, A. E., & Acker, Loren E. (Wadsworth VA Hosp., Los Angeles, Calif.) A demonstration of the long-term retention of a conditioned GSR. *Psychosom. Med.*, 1962, 24(5), 459-463.—GSRs were obtained from 11 World War II Navy veterans and a control group of 11 Army veterans, using the "battle stations" signal and 19 other sounds. The results showed that the Navy veterans gave a significantly greater response to the signal than their Army controls, even though 15-20 years had elapsed since the original aversive conditioning. Implications for psychosomatic theory and Gantt's theory of schizokinesis are discussed.—W. G. Shipman.

4342. Fowler, R. L., & Kimmel, H. D. (U. Florida) Operant conditioning of the GSR. *J. exp. Psychol.*, 1962, 63(6), 563-567.—Using 40 college students, the authors attempted to determine whether or not the unelicited GSR can be conditioned instrumentally using a visual reinforcer. The effects of the number of minutes of reinforcement following each unelicited GSR, the number of visual stimuli per minute of reinforcement, and whether or not the stimuli were contingent with the occurrence of unelicited GSRs were studied. The results were interpreted as supporting the conclusion that the unelicited GSR can be conditioned instrumentally.—J. Arbit.

4343. Gormezano, I., & Moore, John W. (Indiana U.) Effects of instructional set and UCS intensity on the latency, percentage, and form of the eyelid response. *J. exp. Psychol.*, 1962, 53(5), 487-494.—Studied were the effects of voluntary (V) and nonvoluntary (NV) blink instructions on the variations of eyelid responses under classical conditioning and extinction procedures with UCS intensity as a parameter. It was found that the responses of the V Ss could be conditioned, that studies which varied UCS intensity and concurrently employed a latency criterion to reject Ss as voluntary responders may have introduced a methodological error, and that V Ss may not follow appreciably different laws to variations in UCS intensity than NV Ss.—J. Arbit.

4344. Hartman, Thomas F., & Grant, David A. (U. Wisconsin) Differential eyelid conditioning as a function of the CS-UCS interval. *J. exp. Psychol.*, 1962, 64(2), 131-136.—Differential eyelid conditioning was studied at 4 CS-UCS intervals (400, 600, 800, and 1000 msec.). Conditioned discrimina-

tion increased as the CS-UCS interval increased. This was due to a rapid decrease in the percentage of responses to the negative stimulus as the interval was extended. For Ss who never or rarely showed the voluntary form of eyelid response the amount of conditioning to the positive stimulus showed an optimum at about the 600-msec. interval. Superior differential conditioning at the longer intervals may be due to a more complete mediating perceptual response at these intervals or may be interpreted in terms of longer time intervals required for inhibition. (17 ref.)—J. Arbit.

4345. Kimmel, H. D., Hill, Frances A., & Morrow, M. C. (U. Florida) Strength of GSR and avoidance conditioning as a function of CS intensity. *Psychol. Rep.*, 1962, 11(1), 103-109.—A 1000-cps tone was used as a CS in training finger withdrawal to avoid shock. Each of 7 groups of 9 students each was conditioned with a different tone intensity, ranging from 12 db. (approximate threshold) to 42 db. After 12 reinforced trials of delayed 450-msec. avoidance conditioning, equal numbers of Ss in each group were extinguished with 12, 27, or 42 db. "Magnitude of GSR on extinction trials . . . was significantly related to intensity of the acquisition CS. The relationship was curvilinear but primarily downward," with maximum conditioning at 17 db., indicating that "a slightly supra-threshold auditory stimulus is maximally effective in conditioning the GSR."—B. J. House.

4346. Kimmel, H. D., & Pennypacker, H. S. (U. Florida) Conditioned diminution of the unconditioned response as a function of the number of reinforcements. *J. exp. Psychol.*, 1962, 64(1), 20-23.—College students were used to test the hypothesis that the amplitude of the unconditioned GSR is gradually attenuated by the CS during conditioning and that this reduction in UCR amplitude vanishes when the CS is omitted and the UCS presented alone. The results "were interpreted as supporting the notion that a conditioned inhibitory process develops during reinforcement, under the control of the CS, which attenuates the amplitude of the UCR in the presence of the CS. The relationship between these findings and similar findings in a study of the relationship between amount of disinhibition and number of reinforcements was thought to add further support to the interpretation offered."—J. Arbit.

4347. Klinger, Burton I., & Prokasy, William F. (Pennsylvania State U.) A note on MAS score and the ready signal in classical eyelid conditioning. *Psychol. Rep.*, 1962, 10, 829-830.—"Three levels of MAS score and the presence or absence of a 'ready, blink' signal were varied in a 2 by 3 factorial design [with 165 students] in an effort to determine the role of the ready signal and the MAS variable in classical eyelid conditioning. While the absence of the ready signal led to higher conditioning performance, no differences were found as a function of manifest anxiety as measured by Taylor's Manifest Anxiety Scale."—B. J. House.

4348. Logan, Frank A., & Wagner, Allan R. (Yale U.) Supplementary report: Direction of change in CS in eyelid conditioning. *J. exp. Psychol.*, 1962, 64(3), 325-326.—Assuming that the important parameter of the CS is the amount of change from the pre-CS condition, a decrease in intensity

should be as effective a CS as an increase. Assuming that the absolute value of the CS has a motivational property, an increase in intensity should be more effective. Both an increase and decrease in intensity were equally effective CSs. Apparently no impairment in conditioning occurs when the CSs are reversed for the 2 groups. Generalization should be viewed in terms of a surface including the non-CS condition as well as the CS condition.—*J. Arbit.*

4349. Mednick, Sarnoff A., & Wild, Cynthia. (U. Michigan) Reciprocal augmentation of generalization and anxiety. *J. exp. Psychol.*, 1962, 63 (6), 621-626.—"A psychogalvanic reaction was trained to the word LIGHT under conditions of massed and distributed trials. In a factorial design the CR to the CS, LIGHT and mediated generalization stimuli, LAMP, SOFT, and SQUARE, were extinguished with 8-sec. and 20-sec. intertrial intervals. Spaced trials in conditioning produced greater amplitude of CR, greater generalization, and more resistance to extinction. Massed trials in extinction led to greater generalization and slower extinction. An interpretation of the results is offered in terms of reciprocal augmentation of anxiety and generalization, a phenomenon thought to have relevance for psychopathology."—*J. Arbit.*

4350. Moos, Rudolph H. (U. California School Medicine, San Francisco) The retention and generalization of operant conditioning effects in an interview situation. *J. abnorm. soc. Psychol.*, 1963, 66 (1), 52-58.—In a study of the conditioning of complex verbal habits, each of 30 female Ss had her established verbal habits assessed in 2 sessions by being asked to talk about herself. In subsequent sessions, the Ss in the experimental groups were positively reinforced (by a head nod and an "mm-hm") for either independence or affection statements, whereas control groups Ss were reinforced every 30 sec. regardless of the content of their speech. The results showed that: conditioning occurred, i.e., the experimental Ss increased in their use of the reinforced category; retention also occurred, i.e., the conditioning effects were stable over a 24-hr. period; and generalization did not occur.—*Journal abstract.*

4351. Moyer, K. E., & Lindley, Richard H. (Carnegie Inst. Technology) Supplementary report: Effects of instructions on extinction and recovery of a conditioned avoidance response. *J. exp. Psychol.*, 1962, 64 (1), 95-96.—An earlier study of conditioned finger withdrawal found that informing Ss just prior to extinction training that the UCS would no longer be delivered produced rapid extinction. This report presents a replication of that study but with a conditioned avoidance procedure, and also tested an implication of the drive level (D) interpretation of this result; viz., that the appropriate instructions could raise D level and lead to an increase in conditioned responding. As in classical conditioning, inhibitory instructions reduced the number of CRs during extinction after avoidance conditioning. The results also show that for Ss given inhibitory instructions, the appropriate instructions can increase the number of CRs after extinction, presumably by raising D level.—*J. Arbit.*

4352. Perez-Cruet, Jorge. (Walter Reed Army Inst. Research, Washington, D. C.) Conditioning of extrasystoles in humans with respiratory ma-

neuvers as unconditional stimulus. *Science*, 1962, 137 (Whole No. 3535), 1060-1061.—Extrasystoles are known to occur in some healthy individuals during common respiratory maneuvers such as holding the breath. Evidence is presented which shows that under controlled laboratory conditions this kind of extrasystole can be conditioned. Conditional stimuli signaling inspirations and expiration acquired the properties of the respiratory maneuvers by inducing extrasystoles during normal breathing.—*Journal abstract.*

4353. Porter, John J. (State U. Iowa) Stimulus generalization as a function of UCS intensity in eyelid conditioning. *J. exp. Psychol.*, 1962, 64 (3), 311-313.—"This study investigated the interaction between drive level and original and generalized stimulus conditions during extinction. One hundred Ss were first conditioned for 80 trials to respond to a .6-psi air puff on an 80% reinforcement schedule with a CS of 1500 cps. The Ss were then divided into four groups which were extinguished with either a 1500- or 400-cps tone and a .33- or 2.0-psi air puff. On all nonreinforced trials during acquisition and extinction the UCS was presented, but 2500 msec. after the CS. The results confirmed ($P < .05$ for Extinction Trials 1-40) the hypothesized interaction between drive level and original and generalized stimulus conditions predicted by Hull-Spence theory. The effect was not significant over Trials 1-10 or 1-20."—*J. Arbit.*

4354. Runquist, Willard N., Sidowski, Joseph, & Gormezano, I. (Pomona Coll.) Yoked comparisons of classical and avoidance conditioning in differential conditioning of the eyelid response. *Psychol. Rep.*, 1962, 11 (1), 43-50.—"The acquisition and extinction of CRs in differential eyelid conditioning were compared under standard classical, avoidance and yoked classical procedures [$N = 72$ students]. The major finding of the study was a failure to obtain significant discrimination under the avoidance procedure whereas significant discrimination was obtained under the yoked classical procedure. A tentative explanation was offered in terms of an increase in similarity of CS+ and CS- trials produced by the avoidance contingency."—*B. J. House.*

4355. Shickho, G. A. (USSR Acad. Medical Sciences, Leningrad) K voprosu ob obrazovanii uslovykh refleksov vysokikh poriadkov u vzroslykh liudei. [Formation of CR of higher orders in adults.] *Zh. vyssh. nervn. Deiatel.*, 1962, 12 (1), 30-36.—Using the method of salivation and different stimuli such as sound, light, and words, CR were established in adult Ss. By means of the conventional method it was possible to reach a conditioning of 20th order. When verbal stimuli were used, a CR of the 5th order was obtained. "The mechanism of formation of higher order CR does not differ essentially from that of first order conditioning."—*A. Cuk.*

4356. Wolpin, Milton, & Milgram, Norman. (Nebraska Psychiatric Inst.) Learning without awareness and awareness without learning. *Psychol. Rep.*, 1962, 10, 867-874.—56 college students performed in a verbal conditioning experiment. "One group of Ss received unequivocal reinforcement, i.e., 'good' uttered in an approving tone; the other, equivocal reinforcement, i.e., 'good' uttered in an impersonal, disinterested tone. No difference in learning was found between conditions. Interview data were

analyzed and related to this failure to obtain positive results."—*B. J. House.*

Discrimination

4357. Green, Edward J., & Squier, Roger W., Jr. (Dartmouth Coll.) **The rate of learning a discrimination in relation to some predictive measures.** *Amer. J. Psychol.*, 1962, 75(2), 294-297.—Changes in frequency of responding may be predicted by simple statistical models of learning. Amount of change in rate of operant responding is dependent on the probability that the organism will sample various stimulus elements on a given occasion. This sampling ratio is designated as s/S where s is a number of elements sampled and S is the set of elements available. 2 implications of statistical theories of discrimination learning were tested, (a) that bright Ss should show relatively rapid acceleration in discrimination learning, and (b) that Ss with small ratios should be relatively variable throughout their performance. 18 Ss were chosen from introductory psychology on the basis of their College Predictive Index scores. "High" Ss accelerated more rapidly than "low" Ss in the reinforced condition. The prediction that intra- S variability in operant responding would be greater for "low" Ss was not supported.—*R. D. Nance.*

4358. Levine, Marvin. (Indiana U.) **Cue neutralization: The effects of random reinforcements upon discrimination learning.** *J. exp. Psychol.*, 1962, 63(5), 438-443.—2 colors were presented in a random sequence to college Ss who made 1 of 2 responses to each appearance. E said "right" or "wrong" in a prearranged, random, order. Later these words were contingent upon the occurrence of particular stimulus-response pairs. The random reinforcement always produced a decrement in performance on the discrimination task. In contrast to the cue neutralization process seen in mathematical models of discrimination learning, the results suggest that cue neutralization does not depend upon the existence of relevant cues, and that the sampling probability of a neutralized cue does not necessarily become zero.—*J. Arbit.*

4359. Nakamura, Charles Y., & Kaswan, Jaques W. (U. California, Los Angeles) **Effect of stimulus condition and reaction time information on spatial stimulus generalization.** *J. exp. Psychol.*, 1962, 64(1), 67-76.—The effects of stimulus arrangement and experimentally induced differences in response latency on performance of a spatial stimulus generalization (SG) with voluntary responses were studied. The findings were consistent with predictions of SG generated from a stimulus categorization hypothesis. Predictions of error frequency by this hypothesis were compared with those made from Hull's gradient summation hypothesis of SG. There appeared a close and consistent relationship between error frequency and latency on this task.—*J. Arbit.*

4360. Richards, James M., Jr. (U. Utah) **The cue additivity principle in a restricted social interaction situation.** *J. exp. Psychol.*, 1962, 63(5), 452-457.—"This study tested two hypotheses derived from the application of Restle's mathematical learning theory to social interaction: (a) For each person in a two-person social interaction situation, cues originating from the other person combine additively with

other nonsocial cues in the situation. (b) If a third person is added to the social interaction, the situation is changed only in that the total number of cues is increased additively." The data support both hypotheses and thus provide evidence for the operation of the cue additivity principle in social interaction.—*J. Arbit.*

4361. Summers, Stanley A. (U. California, Los Angeles) **The learning of responses to multiple weighted cues.** *J. exp. Psychol.*, 1962, 64(1), 29-34.—9th grade students were used to investigate the relation between the objective validity of certain cues and the extent to which these cues were used. The purpose was to analyze the learning of responses to multiple cues of different validities to determine how much the responses came to depend on each cue. The independent variable was the correlation between a criterion and each of 3 simultaneously presented visual cues. The dependent variable was the correlation between the cues and Ss responses. Successful cue utilization increased during the learning session. Ss responded to different cues simultaneously, and the extent to which cues were used differed with validity. Throughout cue utilization was proportional to cue validity.—*J. Arbit.*

4362. Thomas, David R., & Jones, Charles G. (Kent State U.) **Stimulus generalization as a function of the frame of reference.** *J. exp. Psychol.*, 1962, 64(1), 77-80.—"Five groups of 10 Ss each viewed a monochromatic light of 525 $m\mu$ (a middle-green) for 60 sec., and then were presented 12 different random series of wave lengths under instructions to respond only to the original color. The number of responses made to the different test stimuli constituted a gradient of generalization. Group 1 was tested with the series 485-525 $m\mu$, in 10- $m\mu$ steps; Group 2, 495-535 $m\mu$; Group 3, 505-545 $m\mu$; Group 4, 515-555 $m\mu$; and Group 5, 525-565 $m\mu$. Only Group 3, with a central value of 525 $m\mu$, produced a generalization gradient with a definite peak at 525 $m\mu$; in all other cases the peak of responding was displaced toward the center of the series of test stimuli. . . . These results support the assumption that the generalization test series serves as a frame of reference against which the memory trace of the original stimulus is judged."—*J. Arbit.*

Verbal Learning

4363. Ausubel, D. P., & Fitzgerald, D. (U. Illinois) **Organizer, general background, and antecedent learning variables in sequential verbal learning.** *J. educ. Psychol.*, 1962, 53(6), 243-249.—An analysis of covariance design was used with undergraduate students in studying the effects of an advance organizer, antecedent learning, and general background knowledge on the learning and retention of 2 unfamiliar sequential passages about endocrinology. The organizer, by providing relevant ideational anchorage, suggestively enhanced the learning of the material for those Ss with relatively poor verbal ability. Knowledge of the 1st passage constituted a statistically significant limiting condition in learning the 2nd passage when the influence of both verbal ability and general endocrinological knowledge was statistically controlled. Finally, general background knowledge in endocrinology significantly facilitated the learning and retention of the 1st passage, presumably

by increasing the familiarity of the new material.—*Journal abstract.*

4364. Battig, William F. (U. Virginia) Paired-associate learning under simultaneous repetition and nonrepetition conditions. *J. exp. Psychol.*, 1962, 64(1), 87-93.—The report of a series of experiments designed to control for several variables only inadequately controlled in earlier studies which concluded that associative learning is an all-or-none rather than a gradual incremental process. The earlier study indicated that a group receiving the same list of paired-associate items on each trial did not learn at a different rate than a group for whom all pairs not correctly responded to on any trial were removed from the list and replaced by new pairs on the following trial. The present results are directly contradictory to an all-or-none theory of association formation in paired-associate learning. (18 ref.)—*J. Arbit.*

4365. Cassem, Ned, & Kausler, Donald H. (St. Louis U.) Supplementary report: Effects of stimulus association value and exposure duration on R-S learning. *J. exp. Psychol.*, 1962, 64(1), 94.—Although a gross positive relationship exists between stimulus association value and the amount of R-S learning, a reversal between 0% and 33% Glaze values was noted. This was explained as a sampling artifact since only 2 syllables were included at each association value. The present study provides a more adequate sampling of stimulus items as well as an investigation of the effects of exposure duration during both S-R learning and R-S recall on the amount of R-S recall. The reversal between 0% and 33% was a sampling artifact and that R-S learning is sensitive to exposure duration during both the learning and recall periods.—*J. Arbit.*

4366. Coleman, E. B. (Human Resources Research Office) Sequential interferences demonstrated by serial reconstructions. *J. exp. Psychol.*, 1962, 64(1), 46-51.—“Two extraexperimental sources of interference were examined: (a) letter-sequence interferences, which result when a list presented for learning conflicts with English spelling habits, and (b) word-sequence interferences, which result when a list presented for learning conflicts with the habits of English syntax. Both interferences were studied by serial reconstructions. The first S was exposed to a list and then he tried to reconstruct its order. Each succeeding S tried to reconstruct the order given by the preceding S. With each successive reconstruction, scrambled lists came closer and closer to sensible English. However, the orderings reached an asymptote after which there was no further approach toward English.”—*J. Arbit.*

4367. Ernst, Ronald L., Thompson, Charles P., & Brogden, W. J. (U. Wisconsin) Effect of pattern and pleonasm location in serial lists upon acquisition and serial position errors. *J. exp. Psychol.*, 1962, 64(2), 151-157.—312 college Ss learned by serial anticipation a series of 16 numbers composed of 10, 20, 30, and 40 each occurring 4 times. The control list was a random sequence without pleonasm. The experimental lists included one of 4 types of pleonasm at one of 3 loci. Acquisition was consistently faster for lists with a triplet or quadruplicate than for the control list. The form of the serial position error curve was altered by each pleonasm and

there was significant interaction in form of the curve and locus of pleonasm. The effects of these pleonasm found in previous maze learning studies were compared with the present findings.—*J. Arbit.*

4368. Glanzer, Murray, & Peters, Stanley C. (U. Maryland) Re-examination of the serial position effect. *J. exp. Psychol.*, 1962, 64(3), 258-266.—Serial position effects are usually defined on the basis of the beginning of a list. In rote learning there appear to be 3 factors associated with a repetitively appearing gap that separates the “end” from the “beginning” of the list: primacy-recency, spacing, and chaining versus association break. The effects of these factors in generating the serial position effect was studied in 3 experiments using Army enlisted men (Experiments I and II) and college students (Experiment III). The major factor determining the serial position effect appeared to be the amount of space between the end and the beginning of the list such that an increase in spacing produced a more marked effect.—*J. Arbit.*

4369. Hakes, D. T., & Jenkins, J. J. (U. Minnesota) Group paired-associate learning: Applicability to the study of mediated generalization. *Percept. mot. Skills*, 1962, 15(1), 219-228.—A series of 4 experiments were performed to assess the adequacy of a group paired-associate learning procedure as an alternative to the individual procedure now commonly in use. 3 alternative accounts of the failure of the group experiments to yield mediated generalization were suggested, and it was concluded that the evidence available at present is insufficient to consider the group-learning procedure an acceptable alternative to individual testing.—*W. H. Guertin.*

4370. Healy, N., & Voss, James F. (Coll. Wooster) Effect of list repetition upon multiple S-R₁, S-R₂ verbal acquisition. *Psychol. Rep.*, 1962, 10, 647-650.—96 Ss received 120 trials on a paired-associate learning task in which each stimulus word was followed by either of 2 response words. The list consisted of 6 stimulus words with response word probabilities varying from 1.0-0.0 to .5-.5 in steps of .1. Results did not differ for groups given repetitions of identical trial sequences of 10, 20, or 60 trial blocks or 120 trials with no systematic repetition of sequences. Results corroborate and act as a control for previous findings.—*B. J. House.*

4371. Horowitz, Leonard. (Stanford U.) Associative matching and intralist similarity. *Psychol. Rep.*, 1962, 10, 751-757.—To minimize effects of response learning, a paired-associate method was devised in which after each presentation of a list of 12 word-trigram pairs, S was provided with a set of response terms and required to match them with the stimulus terms. Of 4 groups of 15 students each, the 2 groups trained with high intralist similarity of either stimulus terms or response terms had significantly poorer performance than the 2 groups with low intralist similarity. Implications of these findings for interpretation of previous results are discussed.—*B. J. House.*

4372. Jensen, Arthur R. (U. California, Berkeley) Temporal and spatial effects of serial position. *Amer. J. Psychol.*, 1962, 75(3), 390-400.—4 experiments were performed. Ss were either upper-division or graduate students in Education. Stimuli

were 9 colored geometric forms. Experiment I required S to reconstruct a spatial serial arrangement. In Experiment II, S learned to match each of the 9 stimuli with 1 of a set of 9 buttons. Experiments III and IV were control experiments. Essential features of the serial position curve "emerge under conditions involving neither serial anticipation, nor temporal order of the stimulus-items, nor even serial order of the stimulus-items." The typical bowed serial-position curve appeared even when the conditions used by Hull to explain serial position effect did not exist.—R. D. Nance.

4373. Jensen, Arthur R. (U. California) **The von Restorff isolation effect with minimal response learning.** *J. exp. Psychol.*, 1962, 64(2), 123-125.—Previous studies have shown that the primary effect of isolating or perceptually emphasizing an item in a serial learning task is to accelerate the learning of the isolated item as a response. The present study minimized the role of response learning by using items which were already known so that all S had to learn was the serial order and by using isolated and nonisolated lists which were identical in terms of the responses which were required. The isolation effect was seen in terms of fewer errors in the isolated position. There was no increase in the number of intrusions of the isolated item nor did isolation facilitate learning the over-all list. "It was suggested that when the effects of response learning per se are eliminated, isolation merely changes the order of learning the positions of the items in the serial list."—J. Arbit.

4374. L'Abate, Luciano. (Washington U. School Medicine) **Transfer of learning with differences in associative value and in manifest anxiety.** *Amer. J. Psychol.*, 1962, 75(2), 251-258.—It was hypothesized that a higher level of manifest anxiety should produce greater response facilitation, greater response interference, and greater stimulus-response interference. Ss were 480 undergraduates from the upper and lower quarters on Taylor's scale of Manifest Anxiety. There were 12 equal subgroups, counter balanced for sex and anxiety level. Ss learned lists of paired-associate nonsense syllables differing in associative value. Following the initial learning, each S learned another list of paired-associates in 1 of 3 transfer conditions. There was a significant interaction between anxiety level and transfer conditions, but women appeared to be mainly responsible for it. For men only, there was a significant interaction between anxiety level and lists (associative strength).—R. D. Nance.

4375. Long, R. I. (Menninger Found.) **Field-articulation as a factor in verbal learning and recall.** *Percept. mot. Skills*, 1962, 15(1), 151-158.—Field-articulation, which was defined as the capacity to articulate or differentiate complex stimulus fields, was investigated as a factor in warm-up, original learning, free recall, and relearning with lists of meaningful words having high intra- and interlist similarity. Thurstone's Concealed Figures Test was used as the criterion test for field-articulation. On the basis of the results of this experiment and previous findings, it was concluded that the field-articulation control principle is an important determinant of learning and recall in an interference situation.—W. H. Guertin.

4376. Musgrave, Barbara S. (U. Massachusetts) **The effect of nonsense-syllable compound stimuli on latency in a verbal paired-associate task.** *J. exp. Psychol.*, 1962, 63(5), 499-504.—This study was concerned with the effects on response latency of convergent, divergent, and associated-nonassociated nonsense-syllable compounds. Although differences among the experimental compound conditions were slight, the rank order of increasing latencies was that which had been predicted.—J. Arbit.

4377. Newman, Slater E., & Buckhout, Robert. (North Carolina State Coll.) **S-R and R-S learning as functions of intralist similarity.** *Amer. J. Psychol.*, 1962, 75(3), 429-436.—Research has demonstrated that in verbal learning the S who learns S-R pairs may also be learning R-S pairs. Accepting a parsimonious view, variables affecting learning rate of S-R pairs will similarly affect rate of learning R-S pairs. Increased intralist similarity should lead to increased generalization and a decreased rate of establishment of R-S associations. Present results suggest that with increased similarity among S-terms and among R-terms number of correct responses during R-S recall decreases.—R. D. Nance.

4378. Peterson, Lloyd R., & Peterson, Margaret Jean. (Indiana U.) **Minimal paired-associate learning.** *J. exp. Psychol.*, 1962, 63(6), 521-527.—"The short-term retention of minimal numbers of paired associates was studied in four experiments. Pairs of words were presented in a memory drum and tested for recall by presenting a stimulus after some interval no longer than 16 sec. during which Ss counted backward. Recall decreased as number of pairs increased, but a primacy effect complicated an interpretation in terms of competing responses. This primacy effect was presented with either one or two presentations of a pair. When the stimulus situation at recall was extended to include the alternate pair of words, the primacy effect was reduced. Errors at recall were largely words from the set of pairs just presented."—J. Arbit.

4379. Postman, Leo. (U. California) **The effects of language habits on the acquisition and retention of verbal associations.** *J. exp. Psychol.*, 1962, 64(1), 7-19.—"Three experiments investigated the transfer effects of language habits on the acquisition and retention of verbal association. They tested the assumption that both positive and negative transfer effects (unit-sequence facilitation and unit-sequence interference) increase as a function of the frequency of usage of words. The balance of unit-sequence interference and facilitation determines the speed of acquisition and the rate at which interferences recover with the passage of time."—J. Arbit.

4380. Postman, Leo. (U. California, Berkeley) **Repetition and paired-associate learning.** *Amer. J. Psychol.*, 1962, 75(3), 372-389.—Using a procedure introduced by Rock, 2 experiments investigated repetition with paired nonsense syllables. Ss spelled the items during training. One control group learned the initial lists of the experimental Ss; the other control group learned the terminal lists. In one experiment, correction was given on test-trials; in the other experiment, no correction was given. In both, experimental Ss learned significantly more slowly than control Ss. Superiority of the control groups is due, at least in part, to the effects of repeti-

tion on integration of responses. The effects of repetition on the associative stage of learning remain indeterminate. Serious doubt is thrown on the validity of Rock's evidence for one-trial learning.—*R. D. Nance.*

4381. Rosen, Harold; Richardson, Donald H., & Saltz, Eli. (Wayne State U.) **Supplementary report: Meaningfulness as a differentiation variable in the von Restorff effect.** *J. exp. Psychol.*, 1962, 64(3), 327-328.—College students learned lists of low-meaningful items and lists of high-meaningful items with the item in Position 5 on both lists typed in red while the other items were typed in black. Isolation has a much greater relative effect in a list of low-meaningfulness than a list of high-m items. This finding is discussed in terms of the theory for the von Restorff effect previously proposed by Saltz.—*J. Arbit.*

4382. Salzinger, Kurt; Portnoy, Stephanie, & Feldman, Richard S. (New York State Dept. Mental Health) **The effect of order of approximation to the statistical structure of English on the emission of verbal responses.** *J. exp. Psychol.*, 1962, 64(1), 52-57.—College students guessed the words that were systematically deleted from a series of passages varying in order of approximation to the statistical structure of English. The higher the order of approximation to English the greater the proportion of words guessed. The proportion of words in the correct grammatical category also increased with increasing order of approximation. The assumption of equal intervals between successive orders of approximation is untenable, and the relationship between memory and order of approximation to English may be explained in part by syntactical structure and in part by the meaning called for by the context. (17 ref.)—*J. Arbit.*

4383. Seidel, Robert J. (George Washington U.) **The importance of the S-R role of the verbal mediator in mediate association.** *Canad. J. Psychol.*, 1962, 16(3), 170-176.—To permit a direct comparison of the effects of backward and forward mediation, 2-syllable adjectives equated for similarity in triad pairs were learned by the method of anticipation. Mediation occurred irrespective of the specific S-R character of the mediator.—*R. S. Davidson.*

4384. Spieth, T., & Voss, James F. (Coll. Wooster) **Distribution of practice and probabilistic verbal acquisition.** *Psychol. Rep.*, 1962, 10, 663-666.—3 groups of 24 Ss each received 120 trials on a 6-item paired associate list in which each stimulus word was followed by either of 2 response terms with probabilities varying from 1.0-0.0 to .5-.5 in steps of .1. Distribution conditions for the 3 groups were as follows for intervals between stimulus and stimulus-response and between trials, respectively: 0 sec., 2 sec.; 0 sec., 8 sec.; and 2 sec., 8 sec. Acquisition of the higher probability response was faster for longer intervals but asymptotic performance was not affected. Effect of distribution was greater for probability conditions which approached .5. Results were related to previous probabilistic verbal experiments and Underwood's theory of distribution of practice.—*B. J. House.*

4385. Underwood, Benton J., Rehula, Robert, & Keppel, Geoffrey. (Northwestern U.) **Item-selection in paired-associate learning.** *Amer. J. Psy-*

chol., 1962, 75(3), 353-371.—The learning of a list of paired-associates may be divided logically into 2 stages, 1st response-learning and 2nd association between stimulus and response. Some recent studies have purported to demonstrate that the associative stage takes place in a single trial. 5 major and 2 minor experiments were carried out to evaluate item selection. One indicated that when response-learning was a major factor the "drop-out procedure" resulted in slower learning than the constant procedure. Additional experiments used letter-number pairs, for which response-learning is minimal. In these, the "drop-out procedure" also resulted in slower learning. Results do not deny one-trial learning but strongly indicate that the method used to infer it is inadequate.—*R. D. Nance.*

4386. Voss, James F. (Coll. Wooster) **R₂ competition in S-R₁, S-R₂ verbal probability acquisition.** *Psychol. Rep.*, 1962, 10, 675-678.—"Six one stimulus-two response word associations were presented for 120 trials where probability of the two response words for each stimulus word varied from 1.0-0.0 to .5-.0 in steps of .1. The competing response was varied by: (1) presentation of an E₂ response word on all no-E₁ trials, (2) presentation of an E₂ response word on ½ of all no-E₁ trials, (3) presentation of no E₂ words on all no-E₁ trials. The results indicated that A₁ response frequency increased as probability of E₂ decreased. In addition, the asymptotic performance indicated little difference in A₁ response frequency as a function of E₁ probability for the no-E₂ group."—*B. J. House.*

4387. Waugh, Nancy C. (Harvard U.) **Length of series and the learning curve.** *Amer. J. Psychol.*, 1962, 75(2), 177-192.—Most verbal learning experiments investigate (a) number of trials to mastery as a function of number of items or (b) number of items learned as a function of the number of exposures. This study examines the relation between these 2 functions for serial learning of simple material; it indicates how both may be estimated from first-trial results. In 2 experiments Ss recited lists of digits after each of 6 exposures. All Ss were college graduates. The basic hypothesis was "that the probabilities that a person will learn 0, 1, 2, . . . or k new items from a list are constant from trial to trial and combine independently on successive trials." Both experiments supported the hypothesis. Up to the point where S could master an entire list, each exposure added a constant number of new items to those he could already recall. Up to this point total number of items recalled increased linearly with number of trials. Thus, the learning curve is independent of list number and is linear. The length-difficulty function must also be linear.—*R. D. Nance.*

4388. Williams, Joanna P. (Yale U.) **A test of the all-or-none hypothesis for verbal learning.** *J. exp. Psychol.*, 1962, 64(2), 158-165.—Using simple paired-associate learning materials, one of the assumptions of the all-or-none model, that the mean probability of initial recall is constant, over an extended number of trials, was tested. The all-or-none position was also evaluated in the light of a continuous measure of learning, response latency. The probability of responding correctly to an item for the first time increased as a function of trials using both a recall criterion and in terms of latency. This, and

other findings, were interpreted as supporting a strength theory such as proposed by Hull or Spence.—*J. Arbit.*

Reinforcement (Including Probability Learning)

4389. **Champion, R. A., & McBride, D. A.** (U. Sydney) **Activity during delay of reinforcement in human learning.** *J. exp. Psychol.*, 1962, 63(6), 589-592.—"With speed of response as a measure it was found that both delay of reinforcement and activity during delay had detrimental effects in a very simple learning situation with human Ss. This result confirmed data from a similar study using rats and was interpreted as further supporting Spence's (1956) hypothesis about delay effects in terms of competing responses. Experiments on delay of knowledge of results in human motor learning, yielding no such effects, were seen to differ in certain basic respects from the present type of study."—*J. Arbit.*

4390. **Derks, Peter L.** (U. Pennsylvania) **The generality of the "conditioning axiom" in human binary prediction.** *J. exp. Psychol.*, 1962, 63(6), 538-545.—"The generality of the conditioning axiom basic to linear learning models was investigated. 90 Ss in groups of 10 predicted a 250-trial 75:25 schedule under various conditions of temporal duration, incentive, contingency, and experience with the schedule. During this time the prediction of the more frequent event as a function of its successive occurrence did not show the monotonically increasing function asserted by the conditioning axiom. Further trials showed the monotonic increase but as a result of the differential rate at which Ss began to predict long runs of the more frequent event and decreased the prediction of repetitions of the less frequent event. Concluded that the assertion of the conditioning axiom does not describe most human binary prediction. (31 ref.)—*J. Arbit.*

4391. **Holden, Kenneth B., & Rotter, Julian B.** (Ohio State U.) **Supplementary report: A non-verbal measure of extinction in skill and chance situations.** *J. exp. Psychol.*, 1962, 63(5), 519-520.—"A previous study showed that partial reinforcement does not lead to more resistance to extinction than 100% reinforcement if S feels that reinforcements are produced as a consequence of his own skill. This study also employed verbal expectancies as a measure of learning and extinction. The present study expands the generality of this finding by using a non-verbal behavior. The same effects of skill and chance instructions were found with the nonverbal response. There is also a sex difference in the effects of the instructions.—*J. Arbit.*

4392. **Kanfer, Frederick H., Bradley, Marcia M., & Marston, Albert R.** (Purdue U.) **Self-reinforcement as a function of degree of learning.** *Psychol. Rep.*, 1962, 10, 885-886.—"Ss [80 undergraduates] learned a discrimination task in 25 or 50 trials. Half of each group then received 20 self-reinforcement (SR) trials in which S took over E's control over administration of the reinforcing stimulus. The number of correct self-reinforcing responses was significantly higher with longer acquisition, and both types of incorrect self-reinforcement (failure to reinforce and reinforcing of incorrect responses) were lower with shorter training. The accuracy of

SR responses was related to amount of learning."—*B. J. House.*

4393. **Kanfer, Frederick H., & Marston, Albert R.** (Purdue U.) **Control of verbal behavior by multiple schedules.** *Psychol. Rep.*, 1962, 10, 703-710.—"Twelve Ss participated in a verbal operant conditioning procedure for seven days. They were reinforced for emission of words in the class living animals. One group was trained mainly under fixed interval procedures, a second group under fixed ratio procedures, and a third group on a combination of these two for the first four days. All Ss were then shifted to alternating periods of FR 10 and FI 150 'LH 30' crf. On Day 7 all Ss were also given 20 min. of extinction. . . . Ss trained under FR had a generally higher rate of response and . . . lower variation in response to the S^Ds associated with different schedules than the other groups. Ss started on FI training showed a sharper discrimination of the S^Ds associated with schedules but their overall response rate was lower. The groups trained under mixed schedules performed better under FR than the FI group and showed some rate differentiation between the reinforced and the non-reinforced intervals in FI. All of the groups showed a significant decrease in response rate during extinction but extinction rates did not differ among the groups."—*B. J. House.*

4394. **McCracken, J., Osterhout, C., & Voss, James F.** (Coll. Wooster) **Effects of instructions in probability learning.** *J. exp. Psychol.*, 1962, 64(3), 267-271.—"Instructions in two 70-30 non-contingent probability experiments were varied for six groups. Groups 1 to 6 were told to consider the tasks as (a) conversation, (b) event prediction, (c) event prediction—with additional task information, (d) event prediction—avoiding a trial-by-trial basis of responding, (e) a problem involving responding for blocks of 20 trials, and (f) a problem involving the discrimination of the two events. Group 1 responded at an approximate 50% A₁ level, Groups 2 and 3 approximately matched, and groups 4, 5, and 6 exceeded 85% A₁ responding. Analysis of negative recency effects for Groups 1-4 suggested that Groups 1 and 4 were not responding to the sequential nature of the task, whereas Groups 2 and 3 were."—*J. Arbit.*

4395. **Taylor, A., & Noble, C. E.** (Montana State U.) **Acquisition and extinction phenomena in human trial-and-error learning under different schedules of reinforcing feedback.** *Percept. mot. Skills*, 1962, 15(1), 31-44.—"Effects of different percentages of reinforcing feedback on a 4-unit trial-and-error learning sequence in man were studied for acquisition and extinction. During acquisition there were significant differences and interaction among groups, proficiency being directly related to the number of reinforced responses. During extinction significant differences and interaction were obtained for the 1st 8 nonreinforced trials, but there were no differences among the partial groups themselves. During the remainder of extinction the continuous group recovered and approached the level of the partial groups.—*W. H. Guertin.*

4396. **Wright, John C.** (Stanford U.) **Consistency and complexity of response sequences as a function of schedules of noncontingent reward.** *J. exp. Psychol.*, 1962, 63(6), 601-609.—"80 Ss were instructed that their responses on a circular array of

pushbuttons determined whether a reward or non-reward would occur. Reward occurrence was pre-programmed and random with the independent variable the relative frequency of reward. Superstitious response preferences and patterns were established as a function of the probability of reward, but rotational sequences for the systematic testing of responses were also established as orderly scanning rules, especially following nonreward. The author distinguishes between collecting and using information in that they are differentially influenced by the uncertainty of outcome and the probability of reward.—*J. Arbitt.*

Learning Theory

4397. Jones, M. B. (USN School Aviation Medicine, Pensacola, Fla.) Practice as a process of simplification. *USN Sch. Aviat. Med. res. Rep.*, 1961, Proj. MR005.13-5001, Subtask 11, Rep. No. 2, ii, 18 p.—Correlations between successive trials in the practice of a psychomotor task are strongest between neighboring trials and grow progressively weaker as the trials are more and more separated in the practice series. 3 theories, any one of which can explain these results, are considered, and arguments presented that the most likely interpretation on existing evidence is that the abilities required in successive stages of practice become progressively fewer as one trial follows another. In the beginning many abilities are involved, including several which are fairly general in their application; but at the end of practice only a few are left, for the most part abilities which have a relatively narrow range of application.—*USN SAM.*

4398. Simonov, P. V. (Inst. Higher Nervous Activity, USSR Acad. Sciences) O mekhanizme ugasheniia uslovnykh reflektov. [Mechanism of extinction of CR.] *Zh. vyssh. nervn. Deiatel.*, 1962, 12(2), 248-256.—A search for a general explanation of the extinguishing process in conditioning. The hypothesis of the "preventive inhibition" is presented and discussed. This inhibition emerges under the influence of weak stimuli or following a repetition of strong stimuli. It is connected with Pavlov's idea of the defensive and compensatory function of inhibition.—*A. Cuk.*

RETENTION & FORGETTING

4399. Capretta, Patrick J., & Berkun, Mitchell M. (Miami U.) Validity and reliability of certain measures of psychological stress. *Psychol. Rep.*, 1962, 10, 875-878.—200 Army recruits were tested for backward digit memory span in the middle of a rope bridge, and either before or after crossing the bridge. For experimental Ss the bridge crossed a 50-ft. ravine while control Ss were 1 ft. above ground. A significant decrement in middle-of-bridge performance was found for naive experimental Ss, though not for Ss with previous bridge experience or for control Ss. On a Subjective Stress scale given just after bridge crossing, naive Ss showed significantly higher stress scores than experienced Ss, but both groups were significantly above the control group. Stress conditions showed no effect on other psychomotor tasks given after bridge crossing.—*B. J. House.*

4400. Carran, Archie B. (Beloit Coll.) Increasing probability of initial recall with additional

practice. *Amer. J. Psychol.*, 1962, 75(3), 466-469.—Ss were 40 volunteers from introductory psychology. The 20 in the experimental group were given a 2nd trial with paired associates missed on a 1st trial. The proportion of repeated paired items recalled on the 2nd trial "exceeded the proportion of paired items correctly recalled (a) on the first trial, and (b) when the same paired items missed by the experimental Ss were given to control Ss on their second trial only." "One-trial" acquisition of paired associates may be only a special case of gradual initial acquisition.—*R. D. Nance.*

4401. Eysenck, H. J., & Willett, R. A. (U. London, England) Cue utilization as a function of drive: An experimental study. *Percept. mot. Skills*, 1962, 15(1), 229-230.—High-drive and low-drive Ss were given a perceptual-motor task which made demands on their ability to utilize cues. The results bore out Easterbrook's rule according to which higher drive makes cue utilization less efficient. No differences in reminiscence were observed between high-drive and low-drive groups, a finding opposed to theoretical deduction and previous empirical findings with other tasks.—*W. H. Guertin.*

4402. Gardner, R. W., & Lohrenz, L. J. (Menninger Found.) Association and recall. *Percept. mot. Skills*, 1962, 15(1), 29-30.—51 Ss heard a list of words associated with cheese and control words following 5 subliminal exposures to the cheese list. 44 controls heard the list without subliminal stimulation. Both groups recalled more cheese associates than control words, apparently due to the common associative link of the cheese words rather than because of subliminal influence.—*W. H. Guertin.*

4403. Harcum, E. R. (Coll. William & Mary) Recognition vs. recall of tachistoscopic patterns. *Percept. mot. Skills*, 1962, 15(1), 238.—Fewer overall errors and a smaller difference in errors between target-halves were found with aided recall. Although aided recall probably did not completely eliminate a directional-bias in responding, these results suggest that sequential reproduction in recall contributes to, but does not cause, differences in perceptual accuracy between hemifields.—*W. H. Guertin.*

4404. Kahn, Samuel. Thanks for a better memory. New York: Vantage, 1962. 176 p. \$3.00.—A popular presentation of "tested and proved methods for developing a better memory."—*C. T. Morgan.*

4405. Mechanic, Arnold. (U. California, Berkeley) The distribution of recalled items in simultaneous intentional and incidental learning. *J. exp. Psychol.*, 1962, 63(6), 593-600.—Ss were exposed to 2 sets of materials, instructed to learn only 1 of the sets, and were tested later for the set which they were not instructed to learn. The meaningfulness of the incidental items was a significant source of variance, although the meaningfulness of the intentional items itself or in interaction was not significant in incidental learning. Also, incidental learning increased as a function of practice. Using a difference score between intentional and incidental learning for each S, it was predicted that differences would be greater when the items were of low rather than high meaningfulness. In other situations this finding has been explained in terms of a differential response hypothesis. Results of this study support such an hypothesis.—*J. Arbitt.*

4406. Nickerson, Raymond S., & Brown, Charles R. A quasi-random sequence for memory experiments. *USAF ESD tech. docum. Rep.*, 1961, No. 61-55. ii, 8 p.—A method is presented for constructing sequences with properties which make them useful in ordering stimuli for recognition memory experiments. A main feature of the method is the facility for controlling and efficiently manipulating the number of items occurring between the initial and subsequent occurrences of given items.—*USAF ESD*.
4407. Renner, K. Edward, & Maher, Brendan A. (U. Pennsylvania) Effect of construct type on recall. *J. indiv. Psychol.*, 1962, 18(2), 177-179.—Role Construct Test data from 100 undergraduates failed to support either the hypothesis that (a) the more constructs available, the more accurately one can recall material; (b) more accurate recall occurs with material which is similar to one's construct dimensions rather than with dissimilar material. Bartlett's "schema" and Kelly's "construct" are strikingly similar, except that Kelly has extended Bartlett's notion to the realm of personal constructs.—A. R. Howard.
4408. Rothkopf, Ernst Z. (Bell Telephone Labs.) Learning from written sentences: Effects of order of presentation on retention. *Psychol. Rep.*, 1962, 10, 667-674.—Human Ss (N=144) were exposed to 3 informative passages of 12 topically related sentences each and tested for retention 1 or 15 min. later. Retention test items were constructed by deleting one or more consecutive terms from each original sentence and asking S to supply the missing term. Order of presentation of sentences and of retention test items was varied according to a 12 × 12 Latin square design so that each sentence appeared once in each serial position. Order of presentation of sentences had no effect on retention. However, performance was better for test items appearing early in the series of retention test items. Performance was better when the deleted term was located near the end of the sentence than near the beginning for difficult but not for easy terms.—B. J. House.
4409. Schwartz, Fred, & Lippmann, Frances. (Austen Riggs Cent.) Cognitive and associative structures in recall. *Psychol. Rep.*, 1962, 11(1), 91-101.—Ss (N=154) were tested for immediate memory of 24 nouns embedded in six sentences. Three levels of sentence coherence and two instructions were used; the instructions directed Ss to learn the nouns or to learn the sentences. The results show that Ss remembered the sentences as units, facilitating recall, and tended to forget the sentences as units also. A reciprocal relationship was found between associative and sentence structure determinants of recall. The results were discussed in terms of the facilitating effects of organizational structures in memory and in terms of interference generated by competing modes of organization.—B. J. House.
4410. Schwartz, F., & Rouse, R. O. The activation and recovery of associations. *Psychol. Issues*, 1961, 3(Whole No. 9), 140 p.—Clinical and experimental observations show that when a word is heard or seen, associations of that word are activated (primed). This association halo is usually not in awareness according to the psychoanalytic theory of attention cathexis. In presenting associates of primed stimuli on a recognition test, it was shown that recognition errors were not arbitrary but determined by associative relationships. It may be that performance improves because primed associates fall below threshold earlier than primed stimuli. Some primed associations can replace their activating stimuli in retention testing. Many different structures are activated when a stimulus is presented for remembering. The term "set" refers to the priming of a hierarchy of stimulus, associative, cognitive, and motivational structures, whereas the terms priming and associative priming refer to specific levels of this hierarchy.—D. Prager.
4411. Slamecka, Norman J. (U. Vermont) Retention of connected discourse as a function of duration of interpolated learning. *J. exp. Psychol.*, 1962, 63(5), 480-486.—In 3 separate experiments employing college students it was found that retention was inversely related to the degree of interpolated learning as well as amount of interpolated learning. "It was concluded that the rote retention of passages of connected discourse subjected to interpolated interference is solely a function of the amount of time spent on the interfering task, regardless of how that task is structured. The data failed to support notions stressing confusions of list membership at recall, but rather pointed to a nonspecific interference effect for serial materials."—J. Arbit.
4412. Tulving, Endel. (U. Toronto, Canada) The effect of alphabetical subjective organization on memorizing unrelated words. *Canad. J. Psychol.*, 1962, 16(3), 185-191.—Following 3 trials under the same conditions, one group was instructed to organize recall alphabetically while the other continued under instructions to recall as many words as possible. The alphabetical group improved more rapidly and recalled more after 11 trials than did the standard group. Subjective organization is an important determinant in free recall learning.—R. S. Davidson.

THINKING

4413. Farnsworth, Paul R. (Stanford U.) Stereotyped thinking in music. *Music Educators J.*, 1961, 48(1), 101-103.—9 examples of stereotyping are described.—P. R. Farnsworth.

4414. Klein, G. S. (New York U.) On inhibition, disinhibition, and "primary process" in thinking. In G. Nielson (Ed.), *Proceedings of the XIV International Congress of Applied Psychology. Vol. 4. Clinical psychology* (see 37: 4119). Pp. 179-198. —". . . state of consciousness and the balance of inhibition and disinhibition of functions characterizing it, are crucial in determining the form and content of cognitive behavior." (45 ref.)—B. T. Jensen.

4415. Moss, C. S. (National Inst. Mental Health, San Francisco) A mediation theory of symbolism as an aide to the experimental investigation of symbolic behavior. *Psychol. Rec.*, 1962, 12, 75-84.—An attempt to reformulate psychoanalytic terms and hypotheses relevant to symbolism in the form of Osgood's mediation theory. Choice of symbols is the mediational resultant of a drive to express and an anxiety drive (to inhibit) response-produced mediational processes similar to original object. This view is discussed in relation to several experimental studies.—R. J. Seidel.

4416. Shemiakin, F. N. (Ed.) *Myshlenie i rech'*, [Thought and speech.] *Izv. Akad. Pedagog.*

Nauk RSFSR, 1960, No. 113. 227 p.—These transactions of the Institute of Psychology in Moscow are devoted to reports of investigations on (a) the "relation of the verbal and the visual in the transition from sensation to thought" and (b) the mechanisms of speech. The former are devoted to study of the relation of color-naming to the hue itself in the case of children and in the case of tribes whose languages have only recently been reduced to writing; the latter are devoted in the main to the electrophysiological study of the "concealed movements" of the speech apparatus during the solution of different kinds of mental problems. There is included an article devoted to a comparative analysis of the means of auditory communication in monkeys and communication by speech among humans.—*I. D. London.*

Problem Solving

4417. Beilin, Harry, & Horn, Rheba. (Brooklyn Coll.) Transition probability effects in anagram problem solving. *J. exp. Psychol.*, 1962, 63(5), 514-518.—The effect of transition probability of successive letter sequences upon the solution time of word and nonsense anagrams was studied. "Solution time is significantly longer for word anagrams than nonsense anagrams. This difference is not accounted for by transition probability totals from summed trigram frequencies, initial and terminal letter frequencies, or transition probability totals of solution words. Word perseveration effect is offered as a possible explanation of the solution time difference as well as organization effects not accounted for by transition probabilities of successive letter arrangement."—*J. Arbit.*

4418. Mayzner, M. S., & Tresselt, M. E. (U. Southern California) Anagram solution times: A function of word transition probabilities. *J. exp. Psychol.*, 1962, 63(5), 510-513.—"A study was made of the effect of word transition probability on anagram solution times. Word transition probability was varied by selecting words with either relatively high or low summed digram frequency totals, while holding constant anagram letter order, word frequency, and anagram transition probability variables. The results, predicted on the basis of an S-R mediational model, showed that anagrams whose word solutions have high transition probability totals are solved significantly faster than anagrams whose word solutions have low transition totals."—*J. Arbit.*

4419. Raaheim, K. (U. Bergen, Norway) Problem solving and the awareness of the missing part. *Scand. J. Psychol.*, 1962, 3(3), 129-131.—When university students were asked to solve the so-called Pea Problem with the added instruction of first looking for the missing instrumental part, solutions were not more frequent than without this addition, although the latter may have led to a greater awareness of the reason for choosing the correct line of attack.—*Journal abstract.*

4420. Safren, Miriam A. (Johns Hopkins U.) Associations, sets, and the solution of word problems. *J. exp. Psychol.*, 1962, 64(1), 40-45.—The hypothesis was tested that the category set in anagram solution operates by associative strength between words selected by E as belonging to some common class. It was predicted that anagrams made from organized lists would be solved more quickly

than anagrams made from random lists, and that there would be a decrease in solution time with trials for the organized condition as associations called up by context began to aid Ss in the solution of subsequent problems. The results supported these predictions and thus the present interpretation of the category set. A description of anagram solving as involving recall and free association was advanced to explain the results.—*J. Arbit.*

Concepts

4421. Archer, E. James. (U. Wisconsin) Concept identification as a function of obviousness of relevant and irrelevant information. *J. exp. Psychol.*, 1962, 63(6), 616-620.—"A 2nd orthogonal design replicated four times examined the effect of obviousness of stimulus differences upon concept identification when the manipulated information was either relevant or irrelevant. It had been predicted that there would be an interaction between relevance and obviousness so that performance would be facilitated if the relevant information were obvious; and the reverse would obtain for the irrelevant information. The prediction was supported. An unexpected result indicated that men and women perceived the two forms of squares and parallelograms differently. Men found the task easier when form was relevant rather than irrelevant; and the opposite obtained for women. A post hoc explanation was offered; the differential performance might have been due to the unequal availability of distinctive labels for the forms by the two sexes." The relation of inner speech to problem solving is noted.—*J. Arbit.*

4422. Braley, Loy S. (U. Buffalo) Some conditions influencing the acquisition and utilization of cues. *J. exp. Psychol.*, 1962, 64(1), 62-66.—"A three-stage concept-learning task was used to investigate the effects on subsequent cue utilization of, prior exposure to relevant cues, differences in level of motivation (MA scale), and the shift of a previously positive cue to the status of a negative instance 50% of the time. . . . The results showed no differences on any aspect of the concept-learning task as a function of level of motivation. The introduction of additional (but irrelevant cues), after an initial discrimination has been learned, functions so as to inhibit rather than facilitate the utilization of these cues when they later become the basis for correct discrimination. A previously positive cue retained in a later learning task, where its reinforcement value is negative, facilitates the learning of a new discrimination. Results were discussed as suggesting an interpretation in terms of stimulus novelty."—*J. Arbit.*

4423. Huttenlocher, Janellen. (Harvard U.) Some effects of negative instances on the formation of simple concepts. *Psychol. Rep.*, 1962, 11(1), 35-42.—26 7th-grade boys were tested on a series of 1-dimensional concept formation problems. 2 instances were presented for each problem, the 1st of which eliminated $\frac{1}{2}$ the possible hypotheses and the 2nd of which eliminated all others except for the answer. Poorest performance was observed when 2 negative instances were presented while the best performance occurred with a negative followed by a positive instance. The other 2 possible sequences (+ + and + -) were of about equal effectiveness.

"An interpretation of the problem-solving process involving storage by Ss of initial instances in the form presented to them and study of dimensions that change value on succeeding instances fit the results of the experiment."—B. J. House.

4424. Osipow, Samuel H., & Grooms, Robert R. (Pennsylvania State U.) **On semantic differential resistance to response bias based on stimulus word position.** *Psychol. Rep.*, 1962, 10, 634.—No significant differences in concept ratings were obtained among 3 groups of 24 Ss each who had concepts presented to the left, center, or right of the scales upon which judgment was made.—B. J. House.

4425. Osler, Sonia F., & Weiss, Sandra Raynes. (Goucher Coll.) **Studies in concept attainment: III. Effect of instructions at two levels of intelligence.** *J. exp. Psychol.*, 1962, 63(6), 528-533.—A concept attainment task was presented under general and explicit instructions to Ss 6, 10, and 14 yr. of age, divided into 2 intelligence groups. Under nonspecific instructions, superior intelligence was associated with more effective concept attainment. Under explicit instructions, however, the average intelligence group improved while those of superior intelligence remained unchanged. Thus superior intelligence gave Ss an advantage in the problem finding phase of the task, but not in actual problem solution. Problem solving ability but probably not problem finding ability, increases within the age range studied.—J. Arbit.

4426. Wallach, Lise. (Wellesley Coll.) **The complexity of concept-attainment.** *Amer. J. Psychol.*, 1962, 75(2), 277-283.—Complexity of concept-attainment may depend on the number of cognitive units and structural relations among them. Cognitive units are still not well understood. 60 summer session Cornell University students served as Ss. Materials were 2 sets (Separate and Combined) of 8 cards containing a variety of patterns. 3 different types of problems were used with different Ss. Each S was asked to learn to label a particular set of cards correctly. It was hypothesized (a) that concept formation would be easiest when only one design was relevant and hardest when all 3 designs were relevant, and (b) that variation in difficulty would be greater with cards of the separate set than with those of the combined set. Results supported both hypotheses.—R. D. Nance.

4427. Wickelgren, Wayne A., & Cohen, David H. (U. California, Berkeley) **An artificial language and memory approach to concept attainment.** *Psychol. Rep.*, 1962, 10, 815-827.—20 students were provided with a memory board and a set of symbols with which to record certain kinds of information about the instances of a concept learning task. One group was allowed 12 memory registers, the other 48 registers. "Smaller memory size resulted in more probabilistic inferences, more non-utilization of information, fewer hypotheses, fewer deferred inferences, and greater likelihood of successful attainment. When presented with non-examples as opposed to examples, Ss made fewer deterministic inferences and more incorrect inferences, probabilistic inferences, recordings, and non-utilizations, although the amount of information was equal. Interestingly enough, the most important determinant of task suc-

cess appears to be learning not to use non-examples incorrectly."—B. J. House.

DECISION & INFORMATION THEORY

4428. Broadbent, D. E. **Principes communs à la réaction perceptive et à la décision à caractère intellectuel.** [Common principles in perceptual reactions and to decision-making of an intellectual character.] *Bull. Cent. Etud. Rech. Psychotech.*, 1961, 10(2), 145-155.—"In recent years problems of psychophysics and reaction time have begun to be studied using theories put forward to cover complex intellectual decisions. This paper gives an account first of experiments on decisions in which men show a preference for courses of action which gave low probability of success; and the application of theories of decision to the detection of inconspicuous signals, and to reaction time is then discussed."—V. Sanua.

4429. Edwards, Ward. (U. Michigan) **Measures of information based on overlapping counts for studying sequential dependencies.** *Amer. J. Psychol.*, 1962, 75(2), 311-316.—As previously indicated, the degrees of freedom (df) of data matrices based on overlapping counts are far fewer than conventional formulas for calculating df would indicate. Thus, the Miller-Madow correction will seriously overcorrect unless formulas for df take into account "certain equations relating cell-frequencies." Appropriate formulas are presented. Sequences with and without gaps are discussed. Gaps are of 2 kinds, interior and exterior. However, sequences which include gaps are not appropriate for use in calculating estimates of transmitted information.—R. D. Nance.

4430. Galanter, Eugene. (U. Pennsylvania) **The direct measurement of utility and subjective probability.** *Amer. J. Psychol.*, 1962, 75(2), 208-220.—Recent experimental work on choice stresses 1 of 2 general concepts of behavior: (a) learning theory or (b) a conceptualization stemming from the work of economists and others. In the 2nd, a choice is made among alternative courses of action. The concept of subjective probability serves the same purpose for the choice-theorist as does the idea of partial reinforcement in learning theory. In the direct measurement of utility, Ss estimated additional amounts of money needed to double their subjective happiness level. In the measurement of subject probability, Ss estimated the likelihood of occurrence of a list of 10 events. In the prediction of choices between alternatives with uncertain outcomes, Ss attempted to make as much money as possible by selecting from paired events. Results reveal that it is possible to assess directly the utility of money. Also it is possible to scale the likelihood of uncertain events and to use these psychological scale-values to predict the probability of pairwise choice among alternatives with uncertain outcomes.—R. D. Nance.

4431. Hayes, John R. **Human data processing limits in decision making.** *USAF ESD tech. docum. Rep.*, 1962, No. 62-48. iii, 50 p.—4 experiments are described in which Ss were required to choose among alternatives on the basis of 2, 4, 6 or 8 relevant facts. Both decision quality and decision time were measured. Presenting more than 4 facts caused a decrease in decision making efficiency.—USAF ESD.

4432. Kay, Harry. (Sheffield U.) Channel capacity and skilled performance. In Frank Geldard (Ed.), *Defence psychology* (see 37: 4053). Pp. 161-169.—2 different experiments are discussed with the aim of trying to make some estimation of the informational capacity of the human perceptual-motor system. One concerns the capacity of the human motor system in assembly-type operations, while the other concerns short-term memory and its bearing on perceptual motor skills.—G. H. Mowbray.

4433. Novik, I. B. Negéntropiia i kolichestvo informatsii. [Negentropy and quantity of information.] *Vop. Filos.*, 1962, 16(6), 118-128.—In order to develop information theory further, it is necessary to effectuate a transition from the concept of "quantity of information" to a concept of "information as such." The latter concept is developed on the basis of Lenin's "theory of reflection." In this way information may be regarded as "regulated reflection" of objective reality in man's consciousness.—I. D. London.

4434. Shaliutin, S. M. Algoritmy i vozmozhnosti kibernetiki. [Algorithms and the possibilities of cybernetics.] *Vop. Filos.*, 1962, 16(6), 163-170.—The author concludes that the large number of unsolved problems, connected with viewing the brain as a processor of information, does not permit one, as of now, to demonstrate the "superiority of man's brain over the machine."—I. D. London.

4435. Wilcott, R. C. (Western Reserve U.) Palmar skin sweating vs. palmar skin resistance and skin potential. *J. comp. physiol. Psychol.*, 1962, 55(3), 327-331.—The relationship of palmar skin sweating to skin resistance and potential was studied in 75 people. Within Ss, the amplitude of sweating correlated highly with resistance and potential responses; between Ss, potential change correlated with sweating, but resistance responses did not. Sweating response latencies averaged 1.1 sec. longer than resistance response latencies, and were approximately equal to the latency of the positive wave of the potential response.—W. A. Wilson, Jr.

PHYSIOLOGICAL PSYCHOLOGY

4436. Anokhin, P. K. (Sechenov Medical Inst., Moscow, USSR) Refleks tseli kak ob'ekt fiziologicheskogo analiza. [Goal-seeking reflex as object of physiological analysis.] *Zh. vyssh. nervn. Deiatel.*, 1962, 12(1), 7-21.—The problem of the purposive reflex was raised by Pavlov as early as 1916. The author discusses its physiological basis in the light of some data on hunger and thirst and in the light of his own theory on the feedback mechanism called "the action receiver." The conclusion is drawn that the last explanation of the goal-seeking reflex is to be found in the functioning of the hypothalamus and of the reticular formation.—A. Cuk.

4437. Asratian, E. A. (Inst. Higher Nervous Activity & Neurophysiology, USSR Acad. Sciences) O meste obrazovaniia i funktsional'nykh osnovakh uslovnoi svyazi. [The place of formation and the functional bases of conditioned connections.] *Zh. vyssh. nervn. Deiatel.*, 1962, 12(3), 371-378.—3 questions are pertinent: (a) Where does the CR take place? (b) What shifts in the functional state of nervous centers underlie the formation of a CR?

(c) What structural changes in the neurons constitute the material pattern of the conditioned connections? Pavlov's answers and views have either been further confirmed (regarding the cortex as the locus and the organ of conditioning and the role of the rise in excitability of paired "foci") or are the most probable hypothesis (the shifts of the synaptic apparatus as the material basis of the CR).—A. Cuk.

4438. Belenkov, N. IU. (Medical Inst., Gor'kii, USSR) Spornye voprosy struktury interotseptivnykh uslovnykh refleksov. [Controversial problems concerning the structure of interoceptive CR.] *Zh. vyssh. nervn. Deiatel.*, 1962, 12(2), 418-425.—It is known that the interoceptors are represented in the cortex although to a lesser degree than the exteroceptors. Are they a cortical or subcortical affair? The experimental evidence is in favor of a subcortical explanation although a certain role of the cortex cannot be denied. A strong position is assumed against the explanation proposed by Chernigovskii and Airapet'iants in terms of "scattered elements of analyzers" which may account for the formation of interoceptor CR in the case of cortical extirpation. There is no evidence for such a hypothesis.—A. Cuk.

4439. Deutsch, J. A. (Stanford U.) Higher nervous function: The physiological bases of memory. *Annu. Rev. Physiol.*, 1962, 24, 259-286.—A review of some of the physiological aspects of memory. Material is discussed in terms of: retrograde amnesia and consolidation of the memory trace, consolidation hypothesis, epileptiform phenomena and learning, nature of the physiological change in learning, interocular transfer and storage of the memory trace, steady potential shifts and learning-like phenomena, and electrical activity of the brain and its relation to the memory trace. (97 ref.)—M. J. Wayner, Jr.

4440. Hebb, Donald Olding. The organization of behavior; A neurophysiological theory. New York: Basic Books, 1961. 335 p. \$1.95 (paper).—A paperback edition of the 1949 book.—E. Y. Borrouman.

4441. Levi-Montalcini, R., & Angeletti, P. U. (Washington U., St. Louis) Growth and differentiation. *Annu. Rev. Physiol.*, 1962, 24, 11-56.—The material is divided into 2 parts: (a) primitive organisms, isolated cells, cell populations, and embryonic induction and (b) chemical aspects of growth and differentiation. The survey was completed in June 1961. (357 ref.)—M. J. Wayner, Jr.

4442. Levin, S. L. (Psychoneurological Inst., Odessa, USSR) Spornye voprosy ucheniia o bezuslovnorefleksnoi deiatel'nosti kory bol'shikh polusharii cheloveka i zhivotnykh. [Controversial problems in the teaching of the UR activity of the cerebral cortex of man and animals.] *Zh. vyssh. nervn. Deiatel.*, 1962, 12(1), 44-53.—On the basis of experimental data obtained by the author and by others, some accepted and some controversial points in the theory of the UR activity are discussed. Some debatable points are: (a) presence or absence of an intersected supernuclear neuron connected with the bulbar salivatory center, (b) role of this neuron, and (c) mechanism of secretory suppression in cases of decortication.—A. Cuk.

4443. Mackay, Roland P. (Northwestern U. Medical School) **A neurologic theory of the neuroses.** *Neurology*, 1962, 12(10), 657-664.—“... behavior is the ultimate business of neurology. . . . But if the neurologists, as scientists, are dissatisfied with the mystique of ‘dynamic psychiatry,’ its fanciful symbolism, its reification of abstractions . . . the neurologist must ‘put up or shut up.’” The author’s theory of the neurological basis of neuroses is based on the conditioned reflex; he cites 3 major types of neuroses, all produced by the child’s early conditioning: (a) conditioned misbehavior, e.g., hysteria (conditioned deceit); (b) conditioned alarm neuroses, “a habitual attitude of anxiety . . . termed character neuroses”; (c) “episodic variety of anxiety [which] arises from the breakdown of naturally acquired conditioned patterns of behavior when impossible choices or decisions become necessary . . . termed conflict neuroses.” Such a theory of the physiology of neuroses is amenable to experimental verification “without recourse to mystical abstractions, the supposition of strange forces in the personality, or the use of fanciful symbolism.”—R. Gunter.

4444. MacLean, Paul D. (National Inst. Mental Health, Bethesda, Md.) **New finding relevant to the evolution of psychosexual functions of the brain.** *J. nerv. ment. Dis.*, 1962, 135(4), 289-301.—New findings on the representation of sexual functions on the lower mammalian brain are first presented as they throw light on “the primitive interplay of oral, aggressive and sexual behavior.” Naturalistic observations on the sociosexual behavior of squirrel monkeys are then considered and their implications concerning the psychosexual functions of the brain.—N. H. Pronko.

4445. Smith, Aaron. (Seton Hall Coll. Medicine, Jersey City, N. J.) **Ambiguities in concepts and studies of “brain damage” and “organicity.”** *J. nerv. ment. Dis.*, 1962, 135(4), 311-326.—Despite marked advances in neurology and psychology in the last century, little is known of the brain mechanisms involved in the “higher” mental functions. Clinical and experimental studies are discussed and shown to point to a “need to develop new contexts for studying and defining mental functions and brain mechanisms.”—N. H. Pronko.

4446. Usov, V. V. **O statisticheskikh svoystvakh élektroéntsefalogrammy i élektrokortikogrammy.** [On the statistical properties of the electroencephalogram and electrocorticogram.] *Biofizika*, 1962, 7(5), 629-632.—The author discusses the distributions of momentary values of biopotentials, the mutual regression and autocorrelational connections of the electroencephalogram, and electrocorticogram.—I. D. London.

NEUROANATOMY & PHYSIOLOGY

4447. Courville, Jacques; Walsh, John, & Cordeau, J. Pierre. (U. Montreal, Canada) **Functional organization of the brain stem reticular formation and sensory input.** *Science*, 1962, 138(Whole No. 3544), 973-975.—Injection of 20 μ g of adrenaline, dissolved in 10 μ l of tyrode solution, directly into the brain stem reticular formation, are followed by a transient increase in the amplitude of the cortical-evoked response obtained from single-shock stimulation of the optic chiasma, while injections of the

same amount of acetylcholine produce a transient decrease. Furthermore, injections of procaine in the medial region of the rostral pontine reticular formation are followed by a long-lasting increase in the amplitude of these evoked responses, while the same injections at mesencephalic levels produce a marked decrease. These findings are interpreted in terms of the presence, in the reticular formation, of 2 antagonistic ascending systems: one adrenergic, the other cholinergic, whose tonic activity originates in the mesencephalic tegmentum in one case and in the caudal regions of the brain stem in the other.—*Journal abstract.*

4448. Gromakovskaya, M. M. (Inst. Biological Physics, Acad. Sciences, USSR) **K voprosu o mekhanizme diystviya serotoninina na robotosposobnost' nervno-myshechnogo apparata.** [On the question of the mechanism of the action of serotonin on the work capacity of the neural muscular apparatus.] *Dokl. Akad. Nauk SSSR*, 1962, 144(1), 238-241.—The present study investigated the mechanism of the increase of contractions of fatigued muscles under introduction of serotonin. Such action cannot be attributed to central effects since suboccipital injections do not have a stimulating effect. Peripherally the effect could be due to an increase of the contractability of the muscle fibers or change in the functional state of the myoneural synapses. Experiments were done using frogs and fatiguing the sural muscles by condensor discharge stimulation of the sciatic nerve at a rate of 60-70 impulses/minute. The locus of the effect of serotonin was inferred by intravenally injecting 0.2-0.25 γ of this material after a 1-15 mg. dose of nobutan. Nobutan at that dosage blocks neural transmission but leaves muscle contractability unaffected. Since serotonin has no effect when so combined with nobutan the inference is made that the locus of effect is the synapse. Other experiments combining injections of serotonin and anticholinesterase substances support this conclusion.—H. Pick.

4449. Sherer, Georgia, & Pribram, Karl H. (Stanford U.) **Serial frozen section of whole brain.** *Psychol. Rep.*, 1962, 11(1), 209-210.—“A technique for making serial sections of whole monkey brains is reported. This technique allows a saving of months over the usual celloidin imbedding procedure when reconstructions of lesions or electrode implantations are needed. The technique speeds the reporting of neurobehavioral experiments.”—B. J. House.

4450. Zanchetti, A. (U. Siena, Italy) **Somatic functions of the nervous system.** *Annu. Rev. Physiol.*, 1962, 24, 287-324.—Literature is reviewed and organized in terms of the following major topics: specific and unspecific sensory mechanisms, significance of electrical cortical activity, and reticular formation. The survey was completed in June 1961. (342 ref.)—M. J. Wayner, Jr.

LESIONS & BEHAVIOR

4451. Ebner, Ford F., & Myers, Ronald E. (Johns Hopkins U. School Medicine) **Corpus callosum and the interhemispheric transmission of tactual learning.** *J. Neurophysiol.*, 1962, 25(3), 380-391.—“Nine normal monkeys and 8 with corpus callosum and anterior commissure sectioned were studied for transfer of training between the hands

and between the feet. The normal animals recognized almost immediately with one hand tasks learned with the other hand. They failed, however, in such immediate recognition on tests with a second foot but exhibited more rapid relearning through this foot than through the first foot. By contrast, animals with their commissures sectioned failed to exhibit any evidence of cross-recognition between the hands or between the feet of 1) a simple bar-pressing behavior, 2) a warm-cold discrimination response, and 3) a more complex, tactual form discrimination response. The concept that section of the corpus callosum depresses rates of learning through the separate body members received no support from the present study."—G. Westheimer.

4452. Ettlinger, G., & Kalsbeck, J. E. (Inst. Neurology, Queen's Square, London, England) **Changes in tactile discrimination and in visual reaching after successive and simultaneous bilateral posterior parietal ablations in the monkey.** *J. Neurol. Neurosurg. Psychiat.*, 1962, 25(3), 256-268.—8 animals were subjected to successive right-left or left-right posterior parietal ablation with interoperative testing, the same areas were removed bilaterally in 3 animals, and 3 underwent anterior parietal ablations. "It was found that with unilateral removals both visual and tactile placing reactions were absent or diminished in the contralateral limbs; performance with the left hand on both the test of tactile shape discrimination and visual reaching was significantly more impaired following contralateral than ipsilateral posterior parietal removals; neither first nor second ipsilateral removals gave rise to unequivocal impairment on these tests; and the impairment of shape discrimination and reaching with the left hand following one-stage bilateral posterior parietal removals was no greater than that following unilateral right-sided removals. These results indicate that defects of placing, tactile shape discrimination, and reaching associated with posterior parietal ablations in the monkeys are predominantly crossed, and suggest that there exists a measure of independence between the hemispheres in the control of these activities. It is also argued that the disorder of reaching is the result of a central loss of position sense."—M. L. Simmel.

4453. Gavrilova, L. N., & Obukhova, G. P. (Inst. Experimental Medicine, USSR Acad. Medical Sciences) **Vliianie aminazina na reflektornuiu deiatel'nost' sobak s odnostoronnie udalennym zritel'nym bugrom.** [Effect of chlorpromazine on the reflex activity of dogs with unilaterally removed optical thalamus.] *Zh. vyssh. nervn. Deiatel.*, 1962, 12(2), 285-289.—Food and acid CRs were elaborated in 3 dogs whose optic thalamus had been previously removed. Salivation was recorded simultaneously from the left and right parotid gland. Chlorpromazine in doses of 1, .5, and .25 mg. per 1 kg. of animal's weight was administered 50 minutes before the experiment. The drug exercised a selective depressing influence on the acid reflex while leaving the food UR unchanged. A greater decrease in acid reflexes was recorded on the operated side than on the intact one.—A. Cuk.

4454. Hara, Kazuo. (International Christian U., Tokyo, Japan) **Visual defects resulting from pre-striate cortical lesions in cats.** *J. comp. physiol.*

Psychol., 1962, 55(3), 293-298.—Cats were tested before and after lesions of the middle suprasylvian gyrus, and compared to nonoperative controls, on thresholds for brightness, size, and form discrimination. The lesions caused (a) essentially no effect on brightness, (b) a moderate and temporary increase in size threshold, and (c) a marked, persistent increase in the form-discrimination threshold. Postoperative learning of umweg problems was also impaired. "... pre-striate lesions selectively impair visual form discriminations and retard the solution of new visual learning tasks ... without apparent effect on trans-operative retention."—W. A. Wilson, Jr.

4455. Isaacson, R. L., & Wickelgren, W. O. (U. Michigan) **Hippocampal ablation and passive avoidance.** *Science*, 1962, 138(Whole No. 3545), 1104-1106.—6 rats with bilateral ablation of the hippocampus and 6 rats with extensive destruction of the neocortex were trained to enter a small compartment, while hungry, for a food reward. After 35 trials, spread over 4 days of training, the animals were given a shock while they were eating in the goal box. After the shock the rats with cortical lesions would not enter the goal compartment on the remainder of the trials given on the same day and only gradually began to re-enter over the next 2 days. The effect of the shock on the Ss with hippocampal ablation was slight and transient, suggesting that the ability to make passive avoidance response was impaired.—*Journal abstract.*

4456. Kim, Chul, & Kim, Chang Uk. (Seoul National U., Korea) **Effect of hippocampal ablation on audiogenic seizure in rats.** *J. comp. physiol. Psychol.*, 1962, 55(3), 288-292.—Rats in which the hippocampus was ablated through the overlying neocortex showed an increased susceptibility to audiogenic seizures, chiefly in response to a weak sound; rats in which only the overlying neocortex was destroyed also showed an increase in seizures, but only to a more intense sound.—W. A. Wilson, Jr.

4457. Kovalenko, V. N. (Brain Inst., USSR Acad. Medical Sciences) **Vliianie dvukhstoronnego razrusheniia orbital'noi i perednei sil'vievoi izviliny mozga na pishchevye (sekretno-dvigatel'nye) uslovnye refleksy u sobak.** [Effect of bilateral destruction of the orbital and anterior Sylvian convolution of the brain on the motor secretory CR in dogs.] *Zh. vyssh. nervn. Deiatel.*, 1962, 12(3), 508-516.—CR to sound, light, touch, and to a square were elaborated in 6 dogs before and after the brain operation performed in 2 stages with an interval of 30-40 days. While the UR remained and manifested itself in an intensified form for 15-25 days after the operation, the CR was significantly diminished.—A. Cuk.

4458. Kovalenko, V. N. (Brain Inst., USSR Acad. Medical Sciences) **Vliianie dvukhstoronnego razrusheniia kory orbital'noi i perednei sil'vievoi izviliny mozga sobaki na bezuslovnoe i uslovnoe, aliunootdelenie.** [Effect of bilateral destruction of the orbital and anterior Sylvian gyri of dog's cerebral cortex on unconditioned and conditioned salivation.] *Zh. vyssh. nervn. Deiatel.*, 1962, 12(1), 135-144.—Ss were 5 dogs, 4 experimental and 1 control. After the establishment of salivary reflexes, the zone of the cortical representation of the food center was destroyed, first in one hemisphere and, after an interval

of 30-40 days, in the other. Ss were tested for the CR 5-17 days after each operation. The destruction of the zone resulted in a drastic CR drop, an increase in the latency period, and a slower rise of the unconditioned salivation to its maximum. The destruction of an equal amount of the cortex in the parietal zone of the control dog showed a slight decrease in the CR and UR, but both were fully restored 20 days after the operation.—A. Cuk.

4459. Ladpli, R. (U. Wisconsin) **Galvanic skin reactions of chronic spinal cats.** *Amer. J. phys. Med.*, 1962, 41, 15-22.—The threshold and amplitude of the spinal galvanic skin reflex indicate that the spinal sympathetic motoneuron pools act independently after having been released from cortical control. Hyperreflexia was not observed.—H. J. P. Schubert.

4460. Meikle, T. H., Jr., Sechzer, J. A., & Stellar, Eliot. (Medical School, U. Pennsylvania) **Inter-hemispheric transfer of tactile conditioned responses in corpus callosum-sectioned cats.** *J. Neurophysiol.*, 1962, 25(4), 530-543.—"The inter-hemispheric transfer of both a limb flexion response and a respiratory response conditioned to unilateral tactile stimulation was tested in unoperated cats and in cats in which the corpus callosum had been sectioned either before training or during training. Normal, unoperated cats transferred completely both limb flexion and respiratory responses. Cats with inter-training section of the corpus callosum transferred the respiratory response completely without shock reinforcement, but the limb flexion response transferred only partially even after institution of shock reinforcement. Cats with pretraining section of the corpus callosum transferred neither the limb flexion nor the respiratory response when transfer was tested without shock reinforcement. Although rapid re-learning of the respiratory response with great savings was accomplished with shock reinforcement, the limb flexion response failed to demonstrate any transfer and required complete retraining."—G. Westheimer.

4461. Nutsuidze, M. A. (Inst. Physiology, Tbilisi, USSR) **Posledstviia udaleniia orbital'noi poverkhnosti (orbital'noi kory) lobnykh doli u koshek.** [Consequences of removal of the orbital surface (orbital cortex) of the frontal lobes in cats.] *Soobshch. Akad. Grus. SSR*, 1962, 28(6), 717-724.—After removal of the orbital cortex in 8 cats: (a) motor disturbances in feeding appeared, (b) the emotional reactions of fear and rage weakened, (c) conditioned emotional reactions of fear disappeared, (d) active positive emotional reactions disappeared, and (e) spatial orientation remained undisturbed. All changes observed are attributed to postoperative exclusion of the influence of the orbital cortex on the corresponding centers in the hypothalamic field.—I. D. London.

4462. Sikharulidze, N. I. (Tbilisi State U., USSR) **Nekotorye rezul'taty izucheniia chastichnogo i polnogo udaleniia zritel'nogo analizatora u sobak.** [Some results of a study on the partial and complete removal of the visual analyzer in dogs.] *Soobshch. Akad. Grus. SSR*, 1962, 28(6), 725-732.—Automatized feeding behavior in the dog in response to different forms does not disappear with unilateral removal of Fields 18 and 19 of the visual analyzer

and that of Fields 17, 18, and 19. This is true with isolated stimulation of either the ipsilateral or the contralateral eye. The indicated operation has no effect on "spatial visual orientation." Conditioned reflexes to visual stimuli do not disappear with bilateral removal of Fields 18 and 19. In the beginning of the postoperative period differentiation between conditioned stimuli is disturbed, but it is restored after 3-4 weeks. However, delayed reactions remain partially disturbed in that their appearance is considerably quickened. With bilateral removal of Fields 17, 18, and 19, conditioned reflexes to various forms disappear with no restoration by the 7th post-operative month. Spatial orientation, "studied on the basis of visual reception" is also disturbed. With unilateral and bilateral removal of Fields 18 and 19 and that of Fields 17, 18, and 19, both the functions of other receptors and orientation in space "studied on the basis of these receptors" remain normal.—I. D. London.

4463. Sikharulidze, N. I. (Tbilisi State U., USSR) **Nekotorye rezul'taty izucheniia udaleniia 17 polia zritel'nogo analizatora u sobak.** [Some results of a study on removal of Field 17 of the visual analyzer in dogs.] *Soobshch. Akad. Nauk Grus. SSR*, 1962, 28(3), 355-362.—The results of experiments involving unilateral and bilateral removal of Field 17 in the brain of dogs show the following: (a) Automatized differentiated feeding behavior developed by stimulating one eye retains the same characteristics on stimulation of the other eye, from which it is concluded that the conditioned connections responsible for automatization of this behavior are formed in both hemispheres. (b) With unilateral removal of Field 17 of the visual analyzer, automatized feeding behavior in response to various forms do not disappear and spatial orientation remains completely unaffected. (c) With bilateral destruction of Field 17 spatial orientation remains normal, but visual perception is disturbed for a time. Conditioned reflexes to photic stimulation do not disappear, but object-vision remains partially disturbed for a long time.—I. D. London.

4464. Skultety, F. Miles, & Gary, Thomas M. (State U. Iowa) **Experimental hyperphagia in cats following destructive mid-brain lesions.** *Neurology*, 1962, 12(6), 394-401.—The investigation was carried out on 14 adult cats which were given "ad-lib diets" before and after electrolytic lesions of the periaqueductal gray matter beneath the superior colliculus. 7 of the animals became hyperphagic, and 6 remained so until the end of the experimental period. The authors conclude that hyperphagia can be produced in adult cats by "destructive lesions of sufficient quantity of the dorsal periaqueductal gray matter and adjacent tissue" as well as "minimal destructive lesions of the more ventral periaqueductal gray matter and adjacent tissue. . . . In view of the disparate sites of bilateral mesencephalic lesions attended by hyperphagia" as well as in view of the various other anatomical structures reported by other investigators to be involved in hyperphagia, the authors conclude that there must be "a number of destructive lesions of the central nervous system which bring about a disturbance of relationships among structural-functional components which usually . . . result in hyperphagia." The authors further infer that no 1:1 correspondence

exists between an "anatomic center" in the mid-brain and euphagia.—R. Gunter.

4465. Stuart, D. C., Freeman, W. J., & Hemingway, Allan. (U. California, Los Angeles) Effects of decerebration and decortication on shivering in the cat. *Neurology*, 1962, 12(2), 99-107.—7 cats were decerebrated at the intercollicular level; they were found capable of movements (spasmodic jerks and kicks, running motion, and sometimes tremor) in response to rapid body cooling. No significant rise in oxygen consumption during these activities was observed. The authors concluded that "decerebrated cats cannot shiver and that . . . activity must be more rostral than midbrain. . . . For the first few days after surgical removal of the telencephalon, cats were found to be autonomically hyperactive, urinating, defecating, vomiting, and 'raging' excessively. Classically, such hyperactivity is considered a result of removal of the net suppressive influence which the telencephalon is supposed to exert tonically upon the hypothalamus and its subservient functions. However, as measured metabolically, the intensity of shivering was depressed at this stage and did not return to the preoperative level until four weeks after surgery."—R. Gunter.

4466. Tapp, Jack T. (Vanderbilt U.) Reversible cortical depression and avoidance behavior in the rat. *J. comp. physiol. Psychol.*, 1962, 55(3), 306-308.—The behavior of rats in a shuttle box was studied after the application of KCl solutions to the cortex through implanted polyethylene tubes. Increased latency of response was produced, and was a function of the concentration of the KCl; the time required for recovery also increased as a function of concentration. It is suggested that the disruption of avoidance behavior is part of "a general loss in the ability to perform tasks involving integrated motor behavior."—W. A. Wilson, Jr.

4467. Thompson, Richard F. (U. Oregon Medical School) Role of the cerebral cortex in stimulus generalization. *J. comp. physiol. Psychol.*, 1962, 55(3), 279-287.—Cats with total lesions of auditory cortex and normal cats were trained to respond to a 250-cps tone to avoid shock. Sub-groups were then tested for generalization to tones from 500 to 8000 cps. Normals showed a decreasing generalization gradient; operates responded equally to all test frequencies. "It is suggested that removal of auditory cortex prevents the characteristic development of response inhibition, seen in the normal animal, to stimuli other than the training stimulus."—W. A. Wilson, Jr.

4468. Wang, G. H., & Akert, K. (Johns Hopkins Hosp.) Behavior and reflexes of chronic striatal cats. *Arch. Ital. Biol.*, 1962, 100(1), 48-83.—"Observations on behavior and reflexes were made on three thalamic, ten striatal and five semithalamic-semi-striatal cats. . . . The observed differences in behavior and reflexes between the striatal and thalamic cats may be justifiably attributed to the presence of the striatum in the former and its absence in the latter. It is also concluded that the striatum has, independently of the neocortex, its own functions, which may well be (a) inhibition, and (b) maintenance of the proper sequence in the occurrence of the reflexes required in the performance of a particular

act, such as eating, grooming and mating."—C. T. Morgan.

4469. Whittier, John R., & Orr, Alfonso. (Creedmoor State Hosp., N. Y.) Hyperkinesia and other physiologic effects of caudate deficit in the adult albino rat. *Neurology*, 1962, 12(8), 529-539.—A description of behavioral and metabolic consequences of bilateral stereotaxic lesions in caudate tissue in adult albino rats and correlation between these lesions and cursive hyperkinesia. The following variables were studied: body weight, food and H₂O intake, general behavior, activity-drum recording, swimming activity, oxygen consumption, histamine tolerance, blood glucose, sodium and potassium. A total of 180 animals, divided into various groups were studied. The "syndrome of caudate deficit" produced in the adult albino rat is characterized by: (a) transient consummatory failure, (b) persistent ambulatory hyperkinesia, (c) increased histamine tolerance, and (d) disorganization of somatomotor activities. All these phenomena were obtained without motor weakness. Other significant changes were: fasting blood glucose, sodium, and potassium; however, a decrease in O₂ consumption associated with caudate deficit was observed with cortical lesions.—R. Gunter.

BRAIN STIMULATION

Central Stimulation

4470. Blum, Baruch. (Weizmann Inst. Science, Rehovoth, Israel) A method for chronic implantation of depth electrodes in the brains of experimental animals. *EEG clin. Neurophysiol.*, 1962, 14, 552-553.—The present report describes a new method for temporary attachment of electrodes to the stereotaxic manipulator, allowing the chronic implantation to be done accurately, conveniently, and in such a manner to withstand the activities of the awake and even convulsive animal.—L. C. Johnson.

4471. Krasne, Franklin B. (Yale U.) General disruption resulting from electrical stimulus of ventromedial hypothalamus. *Science*, 1962, 138 (Whole No. 3542), 822-823.—Electrical stimulation of the ventromedial nucleus of the hypothalamus caused hungry rats to stop eating. However, control tests showed such stimulation to be potentially noxious and capable of stopping drinking in thirsty rats. Thus the stopping of eating caused by this stimulation may not have been indicative of a primary effect on hunger.—*Journal abstract.*

4472. Sadowski, B., & Longo, V. G. (Istituto Superiore Sanita, Rome) Electroencephalographic and behavioural correlates of an instrumental reward conditioned response in rabbits, a physiological and pharmacological study. *EEG clin. Neurophysiol.*, 1962, 14, 465-476.—Instrumental reward conditioning was used on 8 rabbits in which cortical and subcortical electrodes had been implanted. Behavioral and EEG patterns during the conditioned responses with and without drugs were analyzed. The conditioned stimulus produced the greatest change in the hippocampal lead, an increase in amplitude and frequency. During satiation 2-3 cps. high amplitude waves intermingled with spindles appeared in the anterior cortex. Masticatory waves appeared in the anterior cortex during eating. The

conditioned response was found to be sensitive to cholinergic drugs.—L. C. Johnson.

4473. Valenstein, Elliot S., & Beer, Bernard. (Walter Reed Army Inst. Research, Washington, D. C.) Reinforcing brain stimulation in competition with water reward and shock avoidance. *Science*, 1962, 137 (Whole No. 3535), 1052-1054.—Employing response rate as the index of reinforcing strength in self-stimulation experiments is questioned. With water reward or shock avoidance placed in competition with brain stimulation, self-stimulation rate does not reflect relative reinforcement value. The results agree with preference tests which show that for, a given electrode site, stimulus intensity, not rate, is directly related to reward strength.—*Journal abstract*.

Electroshock

4474. Adams, Henry E., & Lewis, Donald J. (Louisiana State U.) Electroconvulsive shock, retrograde amnesia, and competing responses. *J. comp. physiol. Psychol.*, 1962, 55(3), 299-301.—In original training, all of 48 rats were exposed to a shuttle box, with $\frac{1}{2}$ receiving true avoidance trials; ECS immediately followed this exposure for $\frac{1}{2}$ of each group. 3 days later all Ss received avoidance trials. The ECS not only interfered with retention of a previously learned avoidance response, but also interfered with the learning of an avoidance response 3 days after the ECS. An explanation is offered in terms of competing responses.—W. A. Wilson, Jr.

4475. Adams, Henry E., & Lewis, Donald J. (Louisiana State U.) Retrograde amnesia and competing responses. *J. comp. physiol. Psychol.*, 1962, 55(3), 302-305.—The effects of ECS on avoidance behavior in rats were studied in 2 experiments. A retrograde amnesic effect appeared when ECS was given in the situation in which the response was learned, but not when ECS was given in a different situation. When Ss were repeatedly exposed, without ECS, to the place where ECS had previously been received the amnesic effect was apparently extinguished. An explanation of ECS effects in terms of interference with consolidation is rejected in favor of a competing-responses explanation.—W. A. Wilson, Jr.

4476. Frommel, E., Family, S., & Ledebur, I. V. (Faculté de Médecine, Genève) L'influence de l'effort musculaire sur l'électrocrise chez le cobaye. [The influence of muscular exertion on electroshock in the guinea-pig.] *Encephale*, 1962, 51(3), 232-237.—A series of 20 guinea-pigs were subjected to forced exercise following electroshock. The following modifications were observed: (a) the clonic and "swimming" phases were fused into a complex phase combining characteristics of both, (b) the tonic crisis was shortened, and (c) coma was prolonged. These findings strengthen the hypothesis of depression of convulsion-producing centers and the persistence of conditioned fear reactions, even under loss of consciousness.—W. W. Meissner.

ELECTROENCEPHALOGRAPHY

4477. Adey, W. Ross; Bell, Frederick R., & Dennis, Barbara J. (U. California, Los Angeles) Effects of LSD-25, psilocybin and psilocin on tem-

poral lobe EEG patterns & learned behavior in the cat. *Neurology*, 1962, 12(9), 591-602.—The authors test the hypothesis that one of the important sites of action of psychotomimetic & hallucinogenic drugs may be those regions in the brain that are concerned in recent memory, emotional arousal, and perceptive functions in the auditory and visual modalities. The effects of LSD-25, psilocybin and psilocin on "resting activity" and on learned behavior (T-maze and delayed response) and correlated EEG records were studied in 18 cats with chronically implanted electrodes in amygdala, parts of hippocampus and entorhinal cortex, thalamic nucleus ventralis anterior, rostral midbrain reticular formation, and primary visual cortex. LSD-25 (25-100 μ g.) resulted in "wide-based 'kangaroo' posture with tail extended . . . [as well as] loss of normal affective responses." Increase in LSD-25 dosage resulted in brief seizure-like episodes as seen in EEG records. Maximal amplitude and longest duration were recorded from dorsal hippocampal and entorhinal cortex leads. "These seizures seemed critically dependent on reduction of visual & auditory sensory influences." Further increases in LSD to about μ g. per kilogram resulted in persistence of seizures and disruption of a delayed response performance when the seizure episode encroached on the period when a discriminative performance was required. "Unlike visual and auditory stimuli, ingestion of food during action of LSD-25 was frequently associated with wave and wave and spike seizure activity, confined in some instances to hippocampal & amygdaloid systems."—R. Gunter.

4478. Anokhin, P. K. (First Medical Inst., Moscow, USSR) Novye dannye k kharakteristike spetsifichnosti voskhodiashchikh aktivatsii. [New data on the characteristics of the specificity of ascending activations.] *Zh. vyssh. nervn. Deiatel.*, 1962, 12(3), 379-390.—Biological modality of the activation is advanced as the main criterion for the classification of excitations into specific and nonspecific. It has been proved that every biologically specific condition of an animal has its own ascending activating effect which can be blocked by drugs. Experiments are discussed showing an ascending activating influence of the hypothalamus on the frontal areas in a hungry anesthetized cat. If glucose is injected into the blood and milk into the cat's stomach, desynchronization of electrical activity in the frontal lobes changes, even in a sleeping cat, to a weak electrical activity.—A. Cuk.

4479. Berkovitch, T. E. (Moscow Pedagogical Inst., USSR) Izuchenie intensivnosti vnimaniia. Soobshchenie I. Intensivnost' vnimaniia po dannym biotokov mozga pri neprosredstvennom vospriatii razdrzhitel' i pri ikh differentsirovanii. [Intensity of attention. Communication I. Intensity of attention as measured by the EEG in an immediate perception of stimuli and in their discrimination.] *Dokl. Akad. Pedag. Nauk RSFSR*, 1961, No. 6, 73-76.—Ss were college students aged 17-20. Their EEG and EMG were recorded while Ss were exposed to visual stimuli. In the 1st experimental series no instructions were given to Ss; in the 2nd they were taught to react in a discriminatory way to different stimuli. After each trial the Ss were questioned in detail. A confrontation of the EEG records with the verbal reports shows a relationship between disap-

pearance of alpha waves and intensity of attention.—*A. Cuk.*

4480. Cadell, T. E., Harlow, H. F., & Waisman, H. A. (U. Wisconsin) EEG changes in experimental phenylketonuria. *EEG clin. Neurophysiol.*, 1962, 14, 540-543.—EEG activity at rest and during photic stimulation were obtained on 5 rhesus monkeys raised from the 5th day on a diet containing phenylalanine and from 4 monkeys on a standard laboratory diet. Resting record of PKU animals showed a predominance of slow waves. No PKU monkey records showed 3/sec. spikes and waves though clinical seizures were present. The normal animals displayed a predominance of high frequency activity. In comparison to normal monkeys, some PKU animals had a reduced following response to photic stimulation.—*L. C. Johnson.*

4481. Callaway, Enoch, III. (Langley Porter Neuropsychiatric Inst., San Francisco, Calif.) Factors influencing the relationship between alpha activity and visual reaction time. *EEG clin. Neurophysiol.*, 1962, 14, 674-682.—Several studies by the author concerning the relationship between alpha activity and visual reaction time are reported. Evidence is presented to indicate that for a given individual there is an enduring tendency for particular phases of the alpha cycle to be associated with fastest or slowest reaction times. Evidence is also presented to indicate that the alpha phase at which stimulation evokes slowest reaction time is not significantly or consistently shifted by altering the stimulus intensity. The relationship of alpha phase to cortical excitability is discussed as a possible explanation of some of the results presented.—*L. C. Johnson.*

4482. Gengerelli, J. A., Gustafson, L. A., & Priddy, R. D. (U. California, Los Angeles) Studies in the neurophysiology of learning: VI. Electrophysiological recording from the rat's brain during operant learning. *Psychol. Rep.*, 1962, 11 (1), 279-290.—Brain waves were recorded, and also the output of an integrator unit which yielded a quantitative index of wave amplitude, from subcortical centers in 3 rats learning to bar press for food. "Average wave amplitude diminished during the initial stages of habit formation, but as the pattern of response became mechanized, average amplitude increased. During extinction this increased amplitude was maintained or increased further. At the time the animals secured the food pellet from the cup there was a definite desynchronization of brain rhythm whose average duration was of the order of one second. This phenomenon continued in the extinction period, although it was not so marked and its duration was significantly shorter."—*B. J. House.*

4483. Hein, P. L., Green, R. L., Jr., & Wilson, W. P. (Duke U.) Latency and duration of photically elicited arousal responses in the electroencephalograms of patients with chronic regressive schizophrenia. *J. nerv. ment. Dis.*, 1962, 135(4), 361-364.—"The latency and duration of the EEG arousal response to photic stimulation were studied and compared in a group of 18 patients with chronic regressive schizophrenia and 18 normal controls. While the results obtained showed no significant difference between the two groups, intragroup variability was much greater in the schizo-

phrenic patients. The possible significance of this finding is discussed."—*N. H. Pronko.*

4484. Ivanova, M. P. (Central Research Inst. Physical Culture) O sootnoshenii dlitel' nosti depressii osnovnykh elektricheskikh ritmov mozga i latentnogo perioda dvigatel'noi reaktsii. [Relationship between the depression of EEG and the motor RT.] *Zh. vyssh. nervn. Deiatel.*, 1962, 12(3), 437-442.—Motor reaction time (RT), EEG, and EMG were recorded when Ss (not described) were reacting to visual stimuli presented at different distances from the center of the field of vision. It was found that in cases of shorter RT, the depression of EEG was also shortened, and vice versa.—*A. Cuk.*

4485. Livanov, M. N. (Inst. Higher Nervous Activity, USSR Acad. Sciences) Prostranstvennyi analiz bioelektricheskoi aktivnosti golovnogo mozga. [Spatial analysis of the bioelectrical activity of the brain.] *Zh. vyssh. nervn. Deiatel.*, 1962, 12(3), 399-409.—By means of a 50- and 100-channel electrotoposcope the bioelectrical mosaic of the cerebral cortex both in animals and man was studied under various functional conditions. Particular attention is given to the analysis of the spatial synchronism of biopotentials. Relationships, distribution curves, and topographic zones are studied.—*A. Cuk.*

4486. Lorens, Stanley A., Jr., & Darrow, Chester W. (Inst. Juvenile Research, Chicago, Ill.) Eye movements, EEG, GSR and EKG during mental multiplication. *EEG clin. Neurophysiol.*, 1962, 14, 739-746.—Data from 10 Ss before and during mental multiplication were obtained to investigate eye movement and its relationship to EEG, EKG, and GSR during cognitive activity. Each S showed a significant increase in eye movement rate during the task. Eye movement rate, however, was not related to changes in the other variables studied. Alpha blocking was noted during the task in 6 Ss, but no unique EEG wave forms (kappa, high voltage frontal delta, or theta) were found.—*L. C. Johnson.*

4487. McAdam, D. W., Knott, J. R., & Ingram, W. R. (State U. Iowa) Changes in EEG responses evoked by the conditioned stimulus during classical aversive conditioning in the cat. *EEG clin. Neurophysiol.*, 1962, 14, 731-738.—Changes in the evoked responses to a conditioned stimulus (flashing light) during the development of a classically conditioned leg flexion were studied in a total of 9 cats. Electrograms were taken from the anterodorsal hippocampus, nucleus medialis dorsalis of the thalamus, the midbrain reticular formation, and the anterior lateral, posterior lateral, and posterior sigmoid gyri of the cortex. Systematic alterations in responsivity were demonstrable in certain brain areas (hippocampus), and not in others (reticular formation) during the early phases of conditioning. These changes paralleled the development of an orienting response. These changes appear to be reversible and not to parallel the development of the conditioned response per se. The variability of response from area to area and at various stages of the conditioning process indicate that the neurophysiological description of learning must be in terms of multiple, time-sequence correlates, and not a single neural correlate.—*L. C. Johnson.*

4488. Morrell, Lenore, & Morrell, Frank. (Stanford U. School Medicine, Palo Alto) **Non-random oscillation in the response-duration curve of electrographic activation.** *EEG clin. Neurophysiol.*, 1962, 14, 724-730.—The response-duration curve for the alpha-blocking response to a bright double flash of light was studied in 25 normal Ss; 5 were under various drugs and one under a placebo. Data for placebo and for methamphetamine are presented. The data indicate there is a nonrandom oscillatory process affecting alpha-blockade response duration which is superimposed upon the habituation curve. For 60 trials (placebo) there was an exponential decrement in mean duration of alpha-blockade between Trials 1 and 29; a steady increase from Trial 30 to 37 followed by a 2nd decrease and then a 2nd increase in the last 5 trials. Amphetamine produced a striking increase in mean response duration, but an oscillatory process appeared to be still present.—L. C. Johnson.

4489. Naumova, T. S. (Brain Inst., USSR Acad. Medical Sciences) **Dinamika élektricheskikh protsessov v strukturakh prodolgovotogo mozga i v kore pri osushchestvlenii reflektornykh reaktsii u sobak na razdrazheniia raznoi intensivnosti.** [Dynamics of electrical processes in medullar and cortical structures of dogs during formation of reflex reactions to stimulation of different intensity.] *Zh. vyssh. nervn. Deiatel.*, 1962, 12(1), 118-128.—EEGs were recorded from the acoustic analyzer (cochlear nuclei of the medulla and the middle ectosylvian gyrus), from the motor analyzer (gracilis and cuneatus and the sigmoid gyrus) as well as from the reticular formation during unconditioned and conditioned defense responses in dogs to acoustical stimuli. It was found that reflexes to weak acoustic stimuli are accompanied by a generalized drop in electrical activity. The general conclusion was that changes in the brain stem depend, other conditions being equal, upon the intensity of the stimulus.—A. Cuk.

4490. Naumova, T. S. (Brain Inst., USSR Acad. Medical Sciences) **Ob élektrograficheskom vyrazhenii vnutrennego tormozheniia v prodolgovatom, srednem mozge i kore u sobak na zvukovye razdrazheniia raznoi intensivnosti.** [Electrographic manifestation of the internal inhibition in the medulla, midbrain and cortex of dogs in response to auditory stimuli of various intensity.] *Zh. vyssh. nervn. Deiatel.*, 1962, 12(3), 489-499.—Purpose was to study the effect of the intensity of the inhibitory stimulus on the nature of the EEG activity. It appears that the mechanism of the internal inhibition cannot be considered independently of the physical characteristics of the inhibitory stimulus. When the stimuli are weak or moderate, there is no change in the EEG. Strong stimuli are accompanied by a generalized decrease in the EEG activity particularly in the brain stem and in the motor areas.—A. Cuk.

4491. Nebylitsyn, V. D. (Inst. Psychology, RSFSR Acad. Pedagogical Sciences) **Al'fa-indeks i balans osnovnykh nervnykh protsessov.** [Alpha index and the equilibrium of the basic nervous processes.] *Dokl. Akad. Pedag. Nauk RSFSR*, 1961, No. 6, 85-88.—Ss were 20 males and 2 females aged 18-30. Their EEG was recorded and the data correlated with 7 different indices of nervous system equilibrium. All the correlations were negative, ranging from $-.24$ to $-.64$, and significant at the .05

level with the exception of 1. It was concluded that the alpha index does reflect the relationship between the excitatory and inhibitory process, and can be used as an index of the balance of the nervous processes.—A. Cuk.

4492. Rao, V. H. Gundu, & Krishnaswamy, N. **A new electroencephalograph.** *Pratibha*, 1959, 2 (2), 45-50.—Details of the newly designed electroencephalograph (its preamplifier, noise, push-pull amplifications, and discrimination) are discussed. The instrument has successfully undergone preliminary testing.—U. Pareek.

4493. Rodin, E. A., Luby, E. D., & Gottlieb, J. S. (Lafayette Clinic, Detroit) **The electroencephalogram during prolonged experimental sleep deprivation.** *EEG clin. Neurophysiol.*, 1962, 14, 544-551.—To determine the effect of sleep deprivation on EEG, 16 healthy, volunteer, male Ss between ages of 18 and 34 were examined after 24, 48, 72, 96, and 120 hours of sleep loss. EEGs showed marked evidence of drowsiness from the 24 and 48 hour period on. If S was kept alert the EEGs showed a desynchronized pattern. During first 48 hours of sleeplessness, 5 Ss showed high voltage paroxysmal activity similar to that seen in some convulsive patients. These 5 Ss also had low thresholds for intravenous megitimide.—L. C. Johnson.

4494. Rossi, G. F., Favale, E., Hara, T., Giusani, A., & Sacco, G. (U. Genova, Italy) **Researches on the nervous mechanisms underlying deep sleep in the cat.** *Arch. Ital. Biol.*, 1961, 99(3), 270-289.—"The EEG, EMG and behavioral criteria followed for the valuation of the depth of sleep are described. Low rate electrical stimulation of the thalamic and reticular EEG synchronizing systems is ineffective during deep sleep. The intravenous injection of thiopental sodium during deep sleep yields a further increase of the threshold of reticular and sensory arousal, leaves the EMG silence unaffected but induces EEG synchronization. Low rate electrical stimulation of the thalamic recruiting system becomes once more effective following the injection of barbiturate."—C. T. Morgan.

4495. Rusinov, V. S. (Inst. Higher Nervous Activity, USSR Acad. Sciences) **Élektrofiziologicheskie issledovaniia pri obrazovanii vremennoi sviazi.** [Electrophysiological investigations during the formation of temporary connections.] *Zh. vyssh. nervn. Deiatel.*, 1962, 12(3), 410-417.—Discussion of experimental data obtained in the last 5-6 years dealing particularly with slow shifts of steady potentials. Contributions by A. Arduini (et al.), T. B. Shvets, P. A. Pavlygina, and others are analyzed.—A. Cuk.

4496. Swisher, J. E. (U. Florida) **Manifestations of "activated" sleep in the rat.** *Science*, 1962, 138(Whole No. 3545), 1110.—A sleep phase similar to feline "activated" sleep was found to occur regularly in normally sleeping rats. However, at these times the electroencephalogram differed from the waking or "activated" pattern in being dominated by 6- to 8-per-second waves. Instead of assuming a very relaxed posture, as cats in "activated" sleep do, the rats tended to undergo shifts in muscle tone, occasionally of considerable magnitude.—Journal abstract.

4497. Tolmasskaia, E. S., & Dykman, L. M. (Psychiatric Inst., RSFSR Ministry Health, Moscow, USSR) **O roli retikuliarnoi formatsii v pro-**

vedenii interotseptivnykh impul'sov. [Role of the reticular formation in transmitting interoceptive impulses.] *Zh. vyssh. nervn. Deiatel.*, 1962, 12(1), 161-168.—Electrodes were implanted in the brain of 15 rabbits during interoceptive (stomach distention by means of a rubber balloon) and exteroceptive stimulation (photic, acoustic, and tactile stimuli). During interoceptive stimulation the most constant and pronounced changes were in the RF, hypothalamus, hippocampus, and motor, orbital, and limbic parts of the brain. No changes were observed during interoceptive stimulation after administration of small doses of chlorpromazine.—*A. Cuk.*

4498. Trabka, Jan. (Medical Acad., Krakow, Poland) **High frequency components in brain wave activity.** *EEG clin. Neurophysiol.*, 1962, 14, 453-464.—Experiments were performed on 5 cats with chronically implanted electrodes under normal and drug conditions. Frequency and auto correlation analyses of EEG recordings were done. Experimental and control recordings established the existence of brain potentials in the frequency range 200-500 cps, more especially in the range 200-300 cps. Auto-correlational analysis indicated high frequency waves were not steady, persistent or time-locked.—*L. C. Johnson.*

4499. Voronin, L. G., & Kotliar, B. I. (Lomonosov U., Moscow, USSR) **Bioelektricheskaya aktivnost' nekotorykh otdelov golovnogo mozga pri vyrobote i ugashenii pishchedobvyatelnogo uslovnogo refleksa.** [Bioelectrical activity of some parts of the brain during the formation and extinction of food procuring conditioned reflexes.] *Zh. vyssh. nervn. Deiatel.*, 1962, 12(3), 547-554.—Electrical activity of the following brain areas of 6 rabbits was investigated: optical and motor regions, the lateral geniculate body, and the reticular formation. The background electrical activity oscillates between 6-7 cycles per second. After the formation of the CR, the stimulus produces short volleys of synchronized oscillations of higher frequency (8-9.5 per sec.) and greater amplitude. These oscillations disappear when the response is extinguished.—*A. Cuk.*

EVOKED POTENTIALS

4500. Butkhuizi, S. M. (Inst. Physiology, Tbilisi, USSR) **O vliianii kory bol'shikh polushariĭ na khvostatoe iadro.** [On the influence of the cerebral cortex on the caudal nucleus.] *Soobshch. Akad. Nauk Gruz. SSR*, 1962, 28(3), 363-368.—This study investigates the influence of electrical stimulation, applied slowly (1-2 per sec.) and more rapidly (6-15 per sec.) in the sensorimotor and parietal cortical areas, on the evoked potentials of the caudal nucleus in non-narcotized curarized cats. In the 1st instance the response potentials exhibit small latent periods; in the 2nd, potentials arise of the "recruiting response type." It is also shown that potentials of the caudal nucleus, evoked by peripheral stimulation, undergo considerable change under the influence of preliminary cortical stimulation: electric stimuli applied slowly (6-8 per sec.) magnify these potentials, while those applied rapidly (50-100 per sec.) suppress them.—*I. D. London.*

4501. Desmedt, J. E. (U. Brussels, Belgium) **Auditory-evoked potentials from cochlea to cortex as influenced by activation of the efferent olivo-**

cochlear bundle. *J. Acoust. Soc. Amer.*, 1962, 34(9, Pt. II), 1478-1496.—The crossed olivo-cochlear bundle (OCB) of Rasmussen was stimulated stereotactically in acute experiments on cats immobilized by flaxedil. Maximal inhibition of the N₁ auditory-nerve response to click was equivalent to a 25-db. decrease in stimulus intensity. "The potentials evoked in cochlear nucleus, superior olive, inferior colliculus, medial geniculate, and auditory I area of the cerebral cortex . . . disclosed a decrease proportional to that of N₁." The OCB activation paradoxically potentiates the cochlear microphonic potential (CM), but the change amounted at most to a 4-db. increase. Various parameters of OCB effects were analyzed in detail, e.g., voltage, duration, frequency, and number of shocks delivered to the bundle, and interval between the OCB stimulation and the testing sound. (48 ref.)—*A. M. Small, Jr.*

4502. Hermann, H. T., Stark, L., & Willis, P. A. (Massachusetts Inst. Technology) **Instrumentation for processing neural signals.** *EEG clin. Neurophysiol.*, 1962, 14, 557-560.—A flexible arrangement of instrumentation is described whereby standard components can be formed into a pulse height selector or window, and an average frequency computer for study of nerve impulse discharges. An experiment demonstrating its effectiveness in separating different physiological signals is provided.—*L. C. Johnson.*

4503. Katsuki, Y., Suga, N., & Kanno, Y. (Tokyo Medical & Dental U., Japan) **Neural mechanism of the peripheral and central auditory system in monkeys.** *J. Acoust. Soc. Amer.*, 1962, 34(9, Pt. II), 1396-1410.—The properties of the primary auditory neuron—tonotopic organization, response pattern, and response area—were studied. 2 groups of neurons could be separated in terms of threshold in the low- and middle frequency range. The rate of increase of fiber-discharge with the change of sound intensity was examined at the characteristic frequency of a neuron. This rate of increase and the threshold of a neuron were well-correlated. 2 types of response areas, wide as well as narrow, were obtained with single-tone bursts at the cortex. By the simultaneous delivery of 2 sounds, these areas were found to be altered in different ways, even though they were originally similar. Cortical neurons are characterized by phasic on, off, and on-off response patterns.—*A. M. Small, Jr.*

4504. Lomo, T., & Mollica, A. (U. Pisa) **Activity of single units in the primary optic cortex in the unanaesthetized rabbit during visual, acoustic, olfactory and painful stimulation.** *Arch. Ital. Biol.*, 1962, 100(1), 86-114.—"Using rabbits with intact nervous system, and without anaesthesia or curare, we have studied the effects of natural stimuli, both specific (luminous), and non-specific (acoustic, olfactory and painful) on the discharge of single units of the primary optic cortex. Of the units recorded in this area, 73% did not alter their discharge during intermittent luminous stimulation. 9% gave variable responses, while 18% were definitely influenced.—*C. T. Morgan.*

SENSORY PHYSIOLOGY

4505. Ades, Harlow W., Engström, Hans, & Hawkins, Joseph E., Jr. **Structure of inner ear sensory epithelial cells in relation to their func-**

tions. *USN Sch. Aviat. Med. res. Rep.*, 1962, Proj. MR005.13-2005, Subtask 4, Rep. No. 1. ii, 26 p.—The structure and relationships of the hairs of the cochlear and vestibular sensory cells have been investigated in fixed and fresh tissue by light, phase-contrast, and electron microscopy. The cochlear hairs closely resemble the stereocilia of the vestibular cells, but there are differences in size, number, and arrangement between those of the inner and outer hair cells. In the cuticle-free region of the cell-surface a basal body is found, corresponding to the single kinocilium on each vestibular cell. The stiff cochlear stereocilia are regarded simply as levers, transmitting mechanical energy from the overlying tectorial membrane by way of the cuticular plate to the basal body. It seems unlikely that their bending, as such, has the importance generally ascribed to it. In view of the great functional significance of modified kinocilia in other sense organs, the basal body, like the vestibular kinocilium, with its associated mitochondria, membranes, and granules, appears to be the essential excitable structure of the hair cells. (25 ref.)—*USN SAM*.

4506. Davis, Hallowell. (Central Inst. Deaf, St. Louis) **Advances in the neurophysiology and neuroanatomy of the cochlea.** *J. Acoust. Soc. Amer.*, 1962, 34(9, Pt. II), 1377-1385.—"This review deals with a few selected areas in which significant advances have recently been made or are being made. The topics relate to the origin and significance of the dc polarization of scala media of the cochlea, to the variety and distribution of nerve endings, to the possible peripheral effects of the efferent nerve fibers, and to the pattern of activity of individual fibers of the auditory nerve." (48 ref.)—*A. M. Small, Jr.*

4507. Engstrom, Hans; Ades, Harlow, & Hawkins, Joseph E., Jr. (U. Göteborg, Sweden) **Structure and function of the sensory hair cells of the inner ear.** *J. Acoust. Soc. Amer.*, 34(9, Pt. II), 1356-1363.—The structure and relationship of the hairs of the cochlear and vestibular sensory cells have been investigated in fixed and fresh tissue by light, phase-contrast, and electron microscopy. In the cuticle-free region of the cell surface, a basal body is found, corresponding to the single kinocilium on each vestibular cell. The stiff cochlear stereocilia are regarded simply as levers, transmitting mechanical energy from the overlying tectorial membrane by way of the cuticular plate to the basal body. It seems unlikely that their bending as such has the importance generally ascribed to it. In view of the great functional significance of modified kinocilia in other sense organs, the basal body, like the vestibular kinocilium with its associated mitochondria, membranes, and granules, appears to be the essential excitable structure of the hair cells. (25 ref.)—*A. M. Small, Jr.*

4508. Fernández, C., Butler, R., Konishi, T., & Honrubia, V. (U. Chicago) **Cochlear potentials in the rhesus and squirrel monkey.** *J. Acoust. Soc. Amer.*, 1962, 34(9, Pt. II), 1411-1417.—Contrary to previous reports, no important differences were noted between the results obtained in rhesus and squirrel monkeys and those reported for the cat and guinea pig. Round-window recording of responses to sound stimuli exhibited cochlear microphonics (CM) of nearly 2 mv. at maximum. The input-output curves showed that CM of these primates behaved similarly

to those reported for the cat and guinea pig. When a micropipette was advanced from scala tympani into the organ of Corti, an increase in magnitude of CM was recorded, as well as a negative DC potential of about 75 mv. Perforation of the reticular lamina was associated with a change in polarity of CM and the appearance of an endocochlear potential (about +75 mv). Oxygen deprivation depressed CM and changed the polarity of the endocochlear potential from +75 to -20 mv. (27 ref.)—*A. M. Small, Jr.*

4509. Flanagan, James L. (Bell Telephone Lab., Murray Hill, N. J.) **Computational model for basilar membrane displacement.** *J. Acoust. Soc. Amer.*, 1962, 34(9, Pt. II), 1370-1376.—"A computational model is described for estimating basilar-membrane displacement in the human ear when the sound pressure at the eardrum is known. The model embodies rational-function approximations of middle-ear transmission and of stapes-to-membrane transmission. The physiological data upon which it is based stem primarily from the researches of Békésy. Besides computational convenience, the rational-function format has the additional advantage that the model can, if desired, be realized in terms of lumped-constant electrical circuits. The model has been found to be a useful analytical tool for relating subjective auditory behavior and the acoustomechanical operation of the ear."—*A. M. Small, Jr.*

4510. Flock, Åke; Kimura, Robert; Lundquist, Per-Gotthard, & Wensäll, Jan. (Karolinska Inst., Stockholm, Sweden) **Morphological basis of directional sensitivity of the outer hair cells in the organ of Corti.** *J. Acoust. Soc. Amer.*, 1962, 34(9, Pt. II), 1351-1355.—"Electron-microscope studies of cross sections of hair bundles on the outer hair cells in the organ of Corti show a consistent orientation of the sensory hairs. In the cuticle, a basal body is regularly found on the side of the cell toward the Hensen's cells. The sensory hairs are organized in the shape of a 'W' pointing towards the basal body. The morphological polarization of the hair cells in the organ of Corti is discussed in the light of similar polarization of the hair cells in the vestibular sensory epithelia and the lateral-line canal organs. A close relation is to be found between the morphological and electrophysical polarization of the mechanoreceptors in the sense organs of hearing and equilibrium."—*A. M. Small, Jr.*

4511. Greenwood, D. D. (U. Wisconsin) **Approximate calculation of the dimensions of traveling-wave envelopes in four species.** *J. Acoust. Soc. Amer.*, 1962, 34(9, Pt. II), 1364-1369.—Calculations were based on Békésy's measurements of the tuning curves of single points on the basilar membrane of each species, and on 4 empirical functions, 1 per species, relating frequency to position of maximum amplitude on the basilar membrane. It was found that the distances over which a traveling wave damps from maximum amplitude to some fraction of maximum amplitude appear to be approximately constant, independent of the position of maximum amplitude on the membrane. In comparing the traveling-wave envelopes of elephant, man, guinea pig, and chicken, it was found that (a) the shape of a traveling-wave envelope is quite similar among the 4 species; (b) the distance over which a traveling wave damps from maximum to "zero" amplitude is the

greater the longer the basilar membrane; (c) this distance, in the species compared, seems to be an approximately constant fraction of the length of the basilar membrane, independent of the length of the membrane.—*A. M. Small, Jr.*

4512. **Henkin, R. I., & Powell, G. F.** (National Inst. Mental Health, Bethesda, Md.) **Increased sensitivity of taste and smell in cystic fibrosis.** *Science*, 1962, 138 (Whole No. 3545), 1107-1108.—Cystic fibrosis is consistently accompanied by the ability to taste and smell salt, sweet, sour, and bitter substances in solution at concentrations much more dilute than those at which the substances are detectable by normal persons. These abnormal thresholds are not affected by the administration of carbohydrate-active steroids.—*Journal abstract.*

4513. **Iurato, Salvatore.** (U. Milan, Italy) **Functional implications of the nature and submicroscopic structure of the tectorial and basilar membranes.** *J. Acoust. Soc. Amer.*, 1962, 34 (9, Pt. II), 1386-1395.—The nature and the submicroscopic structure of the tectorial and basilar membranes have been studied with phase-contrast, polarized-light, and electron microscopy, X-ray diffraction, and analytical chemistry. The tectorial membrane consists of submicroscopic filaments arranged fairly compactly, to form numerous transverse and a few longitudinal fibrous bundles. The basilar membrane consists of a supporting layer which is covered on the tympanic face by the basilar-membrane cells. The supporting layer is made of filaments arranged in a transverse direction. In order to find a relationship between structure and mechanical properties, these results are compared with those of Békésy's experiments.—*A. M. Small, Jr.*

4514. **Lawrence, Merle.** (U. Michigan) **Middle ear mechanics and surgery for deafness.** *J. Acoust. Soc. Amer.*, 1962, 34 (9, Pt. II), 1509-1513.—Békésy's contributions to our understanding of the mechanics of the middle ear are reviewed as they apply to present-day middle-ear surgery. In addition to discussing the transformer action of the middle ear, the paper describes several characteristics of stapes action and of the tympanic membrane with its associated ossicles. It is shown that the plungerlike action of the stapes and the mass of the head of the malleus and incus are important in the proper operation of the normal ear.—*A. M. Small, Jr.*

4515. **Legoux, J.-P.** (Collège de France, Paris, France) **Changes in the cochlear microphonic of the guinea pig produced by mechanical factors in the inner ear.** *J. Acoust. Soc. Amer.*, 1962, 34 (9, Pt. II), 1504-1508.—The cochlear microphonics (CM) of the guinea pig have been recorded by differential electrodes located in various turns of the cochlea. Increased intracochlear pressure produces a selective decrease in the CM recorded from the apical part of the cochlea. Touching the basilar membrane with a hair in the basal turn modifies the CM recorded in that region, but leaves unchanged the CM recorded in the upper parts. Pressing on the basilar membrane in the second turn modifies the CM recorded in the apical part, but not those of the basal turn. (20 ref.)—*A. M. Small, Jr.*

4516. **Møller, Aage R.** (Royal Inst. Technology, Stockholm, Sweden) **Acoustic reflex in man.** *J. Acoust. Soc. Amer.*, 1962, 34 (9, Pt. II), 1524-1534.—

The intra-aural muscle reflex in man as elicited by sound stimulation is examined through the change in the acoustic impedance as measured in the auricular canal. When only one ear is stimulated, the sensitivity of the muscle reflex is found to be greater for ipsilateral than for contralateral stimulation. When both ears are stimulated, the sensitivity of the reflex is greater than for ipsilateral stimulation. Complex sounds with low-peak factor, such as band-pass-filtered noise, are more efficient than sinusoids in eliciting the muscle reflex. The muscle reflex is approximated to a mechanism consisting of a linear envelope detector followed by an integrator.—*A. M. Small, Jr.*

4517. **Pfalg, Reinhard K. J.** (U. Hamburg, Germany) **Centrifugal inhibition of afferent secondary neurons in the cochlear nucleus by sound.** *J. Acoust. Soc. Amer.*, 1962, 34 (9, Pt. II), 1472-1477.—In 40 anesthetized guinea pigs and 1 cat, the left middle-ear and cochlea were destroyed. Via the left internal meatus, glass electrodes were placed inside the cochlear nucleus. The de-afferented secondary neurons in the cochlear nucleus were never found to be excited by sound, but their excitability could be checked by recording their spontaneous activity. In 34 out of 260 spontaneously discharging secondary neurons, the repetition rate was clearly depressed by sound given exclusively to the opposite intact ear. This sound-produced inhibition must have been transmitted by centrifugal fibers. The degree of inhibition depended on the intensity and frequency of the sound. (19 ref.)—*A. M. Small, Jr.*

4518. **Teas, Donald C., Eldridge, Donald H., & Davis, Hallowell.** (Central Inst. Deaf, St. Louis) **Cochlear responses to acoustic transients: An interpretation of whole-nerve action potentials.** *J. Acoust. Soc. Amer.*, 1962, 34 (9, Pt. II), 1438-1459.—Intracochlear electrodes in the guinea pig are used to measure the relations among cochlear potentials in response to slow acoustic transients. The traveling wave of Békésy is described in terms of cochlear microphonic (CM) voltage as functions of time and place along the cochlear partition. From the results, it is clear that the duration of the stimulating phase of CM along the cochlear partition significantly exceeds the apparent duration of the whole-nerve-action-potential (AP) response to these transients. Selective changes in the waveforms of the AP responses, as opposed to simple reductions in amplitude, are observed when the transients are accompanied by bands of noise and after local chemical or mechanical injury to the organ of Corti. The whole-nerve AP wave-form is considered as the complex product of 2 functions in time, the diphasic unit of response and the numerical sequence of newly active neurons. (23 ref.)—*A. M. Small, Jr.*

4519. **Zwislocki, J.** (Syracuse U.) **Analysis of the middle-ear function: I. Input impedance.** *J. Acoust. Soc. Amer.*, 1962, 34 (9, Pt. II), 1514-1523.—"A quantitative theory of the middle-ear acoustics is developed and expressed in terms of an electric analog. The analog network is based on the functional anatomy of the middle ear. The numerical values of its elements are derived from impedance measurements on normal and pathological ears and from anatomical data. It is shown that the input impedance of the analog agrees within the experi-

mental error with the acoustic impedance at the eardrum, and that changes in analog parameters corresponding to known anatomical changes produce the same effect on its impedance characteristics as measured at the eardrum." (17 ref.)—*A. M. Small, Jr.*

ENDOCRINE, BIOCHEMICAL, & CIRCULATORY EFFECTS

4520. **Black, Charles J.** (Southwestern Medical School) **Behavior of normal rats injected with the blood of rats subjected to prolonged stress.** *Psychol. Rep.*, 1962, 10, 646.—No consistent effect on bar press performance was observed in rats injected with blood from shocked rats as compared with rats injected with blood from nonshocked rats, saline solution, or LSD-25.—*B. J. House.*

4521. **Burt, John J., Blyth, Carl C., & Rierison, Herman** (U. North Carolina) **Body fat, blood coagulation time, and the Harvard Step Test recovery index.** *Res. Quart. Amer. Ass. Hlth. Phys. Educ. Recr.*, 1962, 33(3), 339-342.—To investigate further the inverse relationship that appears to exist between ischemic heart disease and physical activity, experiments were conducted on 54 healthy male students to determine the relationship between blood coagulation time and fat storage, Harvard Step Test scores, age, height, and weight. No significant relationship was found to exist between clotting time and the selected variables. (20 ref.)—*Journal abstract.*

4522. **Calvin, Allen D., & Terrill, Anne.** (Behavioral Research Lab., Palo Alto, Calif.) **Effect of adrenalin on T-maze performance of the white rat.** *Psychol. Rep.*, 1962, 11(1), 11-13.—"Forty-eight albino rats served as Ss in an experiment to determine the effect of adrenalin on the learning of a simple discrimination problem in a T-maze. Morgan and Stellar's generalization that adrenalin does not have an effect on maze performance was supported."—*B. J. House.*

4523. **Carlson, L. D.** (U. Kentucky) **Temperature.** *Annu. Rev. Physiol.*, 1962, 24, 85-101.—The material in this review, which was completed in May 1961, is discussed in terms of the following topics: temperature regulation, effects of heat, effects of cold, analogue studies, hypothermia, hibernation, and cold injury. (316 ref.)—*M. J. Wayner, Jr.*

4524. **Denisova, A. S.** (Inst. Physiology, Acad. Science, USSR) **Dinamika izmeneniya uslovnnykh refleksov sobak posle vvdeniya mal'kikh doz adrenalina.** [Dynamics of the changes of conditioned reflexes of dogs after the introduction of small doses of adrenalin.] *Dokl. Akad. Nauk SSSR*, 1962, 142(3), 725-727.—After 4 dogs had been conditioned to give salivatory responses adrenalin was injected subcutaneously. Successive doses of .1 and .3 ml. of 1:1000 solutions of adrenalin were given 15-30 days apart. Reactions of the dogs had 2 phases. The 1st phase, 5-9 min. after injection, showed an increase in CR magnitude and motor arousal of the animals. The 2nd phase, 1 hr. to 1½ hr. after injection, showed CR amplitude lower than normal and the dog's behavior was sluggish and sleepy. In dogs classified as having excitable nervous systems, the sleepy state was alternated with motor arousal accompanied by panting. The differences in magnitude of the doses appeared to make little difference in reaction.—*H. Pick.*

4525. **Duryinyan, R. A.** (Inst. Normal & Pathological Physiology, Acad. Medical Sciences, USSR) **Vliyaniye aminazina na vyzvannyi potentsial kor'y.** [Influence of aminase on evoked potentials of the cortex.] *Dokl. Akad. Nauk SSSR*, 1961, 141(5), 1253-1256.—Recordings of potentials in the cortical sensory projection area for the forelimbs were made with cats while the central end of a dissected nerve in the contralateral limb was stimulated with single rectangular wave pulses. Aminase injected intravenously produced the following changes in evoked potentials after 2 or 3 minutes: the latent period of the primary response increased by about .7-1.0 msec., the length of the positive phase increased 1 to 1.5 msec., the amplitude of the positive phase decreased by more than 100 uv. The duration of the negative phase increased 5 fold, and its amplitude was lowered on the average 250 uv. There was practically complete blocking of the Forbes and Morrison secondary potential. The fact that the negative and secondary phases of the wave are the ones primarily affected is interpreted as indicating communication between the neural elements of first cortical layers with fibers from the diffuse thalamic-cortical system.—*H. Pick.*

4526. **Gibson, John.** (Queen's U., Belfast, North Ireland) **Emotions and the thyroid gland: A critical appraisal.** *J. psychosom. Res.*, 1962, 6(2), 93-116.—Some of the conclusions of this extensive survey of the literature are: There is no evidence that emotional stress can produce changes in thyroid activity or create hypothyroidism in man, although stress will inhibit temporarily thyroid activity in animals. Adrenaline does not seem to activate the pituitary with respect to thyroid stimulating hormone. A single episode of severe stress does not seem able to cause thyrotoxicosis, although long continued or often repeated emotional stress may precipitate it in a predisposed S. (175 ref.)—*W. G. Shipman.*

4527. **Hightower, N. C., Jr.** (Scott & White Clinic, Temple, Tex.) **The digestive system.** *Annu. Rev. Physiol.*, 1962, 24, 109-138.—The survey was completed in June 1961 and covers the following topics: appetite, hunger, and thirst; motor activity; salivary secretion; gastric secretion; pancreatic exocrine function; bile formation; intestinal absorption; and visceral circulation. (258 ref.)—*M. J. Wayner, Jr.*

4528. **Korneev, G. IA.** (Pavlov Inst. Physiology, USSR Acad. Sciences) **O mezhhsignal'nykh otnosheniakh pri razlichnykh funktsional'nykh sostoianiiakh shchitovidnoi zhelezy.** [Intersignal relations under various functional conditions of the thyroid gland.] *Zh. vyssh. nervn. Deiatel.*, 1962, 12(3), 443-449.—Ss were 13 healthy persons, 10 with toxic goiter, 15 with nontoxic goiter, and 2 with hypothyroidism. Using the secretory-motor technique Ss were conditioned to react to numbers and then asked to carry out several arithmetical problems. In Ss affected with toxic goiter and suffering from hypothyroidism the activity of the subcortical salivary center was significantly disturbed. This disturbance was less prominent in Ss with nontoxic goiter.—*A. Cuk.*

4529. **Kretschmer, E.** **Körperbau und Charakter.** (23rd-24th ed.) [Physique and temperament.] Berlin, Germany: Springer, 1961. xiv, 463 p. DM 39.80.—Most of this edition of this well known work

has remained unchanged. Added are sections on the relationship of physique with autonomic nervous functions, gynecological disturbances, puberal dystrophy, and "stress" (prisoner-of-war problems). A chapter on the "theory of somato-psychical functional systems" has also been prepared.—*J. C. Brengelmann.*

4530. Latané, Bibb, & Schachter, Stanley. (Columbia U.) Adrenalin and avoidance learning. *J. comp. physiol. Psychol.*, 1962, 55(3), 369-372.—Rats were injected with 1 of 3 solutions, and then given 200 shock-avoidance trials in a shuttle box with light as the CS. On several measures of acquisition of the avoidance response, rats receiving .0125 mg. adrenalin per 100 gm. body weight scored significantly higher than rats receiving .25-.50 mg./100 gm. or placebo controls. The apparent nonmonotonic relationship between dosage and learning may result partially from the pathological effect of large doses of adrenalin.—*W. A. Wilson, Jr.*

4531. Levy, Jeanne, & Michel-Ber, Estera. Sur les relations entre le mécanisme d'action de quelques substances psychotropes et le taux cérébral des amines biogènes ou de leurs précurseurs. [The relations between the mechanism of the activity of some psychotropic substances and the cerebral action of biogenic amines or their precursors.] *Encephale*, 1962, 51(2), 132-148.—Biosynthesis of the biogenic amines, adrenalin and serotonin, and the mechanisms of transformation are reviewed and discussed. Hypotheses concerning the interference of reserpine and monoamine oxydase inhibitors in the action of formation of these amines are discussed. (64 ref.)—*W. W. Meissner.*

4532. Petrovitch, Yu. A., & Podorozhnaya, R. P. (Ukrainian Research Inst. Stomatology, Odessa, USSR) Vydelenie glitsina- C^{14} i metionina- S^{35} slyunnymi zhelezami pri uslovnoi i bezuslovnoi sketretsii. [Excretion of glycine- C^{14} and methionine- S^{35} by salivary glands with conditioned and unconditioned secretion.] *Dokl. Akad. Nauk SSSR*, 1962, 143(2), 487-490.—Glycine- C^{14} or methionine- S^{35} was injected into each of 5 dogs who had previously been conditioned to secrete saliva to a light signal. At various time intervals after injection salivation was evoked in the dogs successively by an unconditioned stimulus and the light signal. The glycine showed up in the saliva in the first minutes after injection. No appreciable amount of methionine was detected till almost an hour after injection. The amount of both the amino acids showing up in the saliva was much less in the case of a conditioned response than in the case of an unconditioned response.—*H. Pick.*

4533. Pincus, G. (Worcester Found. Experimental Biology, Shrewsbury, Mass.) Reproduction. *Annu. Rev. Physiol.*, 1962, 24, 57-84.—This survey was concluded in June 1961, and the material is organized in terms of the following topics: gametogenesis, gamete maturation and release and attendant phenomena, factors affecting the transport and union of gametes, pregnancy, delivery and nurture of young, sex hormones and tumors, effects of sex hormones, metabolism of sex hormones, and the mechanism of sex steroid action. (308 ref.)—*M. J. Wayner, Jr.*

4534. Rosenzweig, Mark R., Krech, David, & Bennett, Edward L. Effects de l'apprentissage sur la chimie et l'anatomie du cerveau. [Effects of training on the chemistry and anatomy of the brain.]

Psychol. Franc., 1962, 7(3), 209-215.—A continuation of an earlier report (see 36: 4DJ81R) on the rate of cholinesterase secretion with different training conditions. The results show an increase in the total weight of the cortex with increase in training. Allowing for this factor, the cholinesterase rates for the cortex and the subcortex are found to be comparable; that is, an increase in rate is associated with the more intensive training procedures.—*C. J. Adkins.*

4535. Sternbach, R. A. (Massachusetts General Hosp., Boston) Assessing differential autonomic patterns in emotions. *J. psychosom. Res.*, 1962, 6(2), 87-91.—In order to discover the autonomic pattern for sadness, 10 children, age 8, were shown the motion picture Bambi while continuous recordings were made of the palmar skin resistance, gastric motility, respiration rate, heart rate, eyeblink rate, and finger pulse volume. At the point they all reported was the saddest, skin resistance and lacrimation increased, suggesting an inhibition of sympathetic nervous system activity. At the happiest point for each of them, there was a significant decrease in gastric peristaltic rate, suggesting a possible decrease in vagal activity.—*W. G. Shipman.*

4536. Thompson, William R., & Goldenberg, Louis. (Wesleyan U.) Some physiological effects of maternal adrenalin injection during pregnancy in rat offspring. *Psychol. Rep.*, 1962, 10, 759-774.—An investigation of "the effect of maternal adrenalin injection during pregnancy on adrenal weights in rats offspring following stress. . . . Data on offspring viability and body weight were also taken. A number of parameters were studied in the design, these being sex of offspring, postnatal rearing, dosage level, and trimester of injection. . . . Injection of adrenalin and saline during pregnancy had no effects on viability, but produced lowered adrenal weights in offspring, this effect being most marked with first trimester treatment. Significant changes in body weight of offspring were also found . . . again more marked in the first trimester groups."—*B. J. House.*

4537. von Hollwich, F., & Tilgner, S. (U. Augenlinik, Germany) Experimentelle Untersuchungen über den photosexuellen Reflex (réflexe opto-sexuel) bei der Ente. [Experimental investigation of the photosexual reflex in the duck.] *Ophthalmologica*, 1961, 142(5), 572-576.—After intermittent irradiation of the eye region in ducks over a total period of 200 hours with approximately monochromatic light of wavelengths 436, 546, 632 and 707 m μ of the same radiation intensity (2.45 W/scm) the size of the testes was recorded. In confirmation of the findings of Benoit it was found that irradiation with long wave light (707 m μ) gave by far the greatest relative weight of testis.—*C. T. Morgan.*

4538. Winokur, G., Stewart, M., Stern, J., & Pfeiffer, E. (Washington U. School Medicine, St. Louis, Mo.) A dynamic equilibrium in GSR habituation: The effect of interstimulus interval. *J. psychosom. Res.*, 1962, 6(2), 117-122.—GSR habituation rate to 5.5 sec. 60 db. tones was studied in 40 medical students. After the first few tone stimuli the degree of habituation is related to the intertrial interval, the shorter the interval, the greater the level of habituation. With shock (0.5 sec. of 0.5 mA intensity) stimulation a similar pattern occurs but takes longer to become apparent.

The asymptote reached in GSR habituation seems dependent on the interstimulus interval.—*W. G. Shipman.*

PSYCHOPHARMACOLOGY

4539. Anichkov, S. V. (Inst. Experimental Medicine, USSR Acad. Medical Sciences) *Farmakologiya uslovnnykh refleksov.* [Pharmacology of CR.] *Zh. vyssh. nervn. Deiatel.*, 1962, 12(3), 391-398.—A survey of the field, beginning with the 1st study done in Pavlov's laboratory in 1908 by I. V. Zavadskii. Methods, variables, and results are pointed out.—*A. Cuk.*

4540. Frankenhaeuser, M., & Järpe, G. (U. Stockholm, Sweden) Subjective intoxication induced by nitrous oxide in various concentrations. *Scand. J. Psychol.*, 1962, 3(3), 171-176.—Subjective intoxication at various dose-levels of nitrous oxide was investigated by the method of magnitude estimation. Estimates of intoxication were obtained from the intoxicated Ss themselves and from a group of Os. Both these sets of subjective scale values showed a pronounced and regular increase with increasing dose-levels of the drug. Objective performance changes followed the same general pattern, but were much less pronounced. It was concluded that subjective scaling methods are well suited for measurements of drug-induced changes in subjective variables.—*Journal abstract.*

4541. Gvishiani, G. S. (Inst. Clinical & Experimental Cardiology, Tbilisi, USSR) *Vlianie tifen na uslovnorefleksornuiu deiatel'nost' sobak s gipertoniei.* [The influence of tephene on conditioned-reflex activity in dogs with hypertension.] *Sobshch. Akad. Nauk Grus. SSR*, 1962, 28(6), 753-756.—The effects of tephene on conditioned-reflex activity in 2 dogs were studied. Small doses (10 mg/kg) do not significantly decrease the response to weak conditioned stimuli; larger doses (15-20 mg/kg), simultaneously with decrease of all positive conditioned reflexes, "disinhibit differentiation." Systematic administration of small doses (10 mg/kg) of tephene in dogs with normal blood pressure sharpens differentiation, but in dogs with hypertension there appears some increase in conditioned positive reflexes along with sharpening of differentiation and quickened "extinctive inhibition."—*I. D. London.*

4542. Levin, S. L., & Makhtinger, A. I. (Pediatrics Research Inst., Leningrad, USSR) *Vlianie uslovnorefleksornykh razdrashitelei na avtomaticheskoe (pilokarpinovoe) sliunootdelenie.* [Effect of CS on automatic (pilocarpine) salivation.] *Zh. vyssh. nervn. Deiatel.*, 1962, 12(3), 457-464.—The effect of positive and negative Cs on the course of salivation caused by pilocarpine was studied in 3 Ss (age 7-14) by means of the Krasnogorskii motor secretory method. Data show that salivation decreases under positive stimulation and increases, under negative CS. This points to a limitation of humoral automatism under the influence of the excitatory process and to the release of the automatism with the development of cortical inhibition.—*A. Cuk.*

4543. Mendelson, Joseph, & Bindra, Dalbir. (McGill U.) Combination of drive and drug effects. *J. exp. Psychol.*, 1962, 63(5), 505-509.—The effects of chlorpromazine and methylphenidate on a water rewarded lever pressing response were stud-

ied at several levels of thirst. Both drugs decreased response rate despite the fact that one is a depressant and the other a stimulant. There were no significant differences in the decrements in response score produced by either of the drugs at the different drive levels. Methylphenidate produced no marked decrement at the highest drive level as opposed to the decrement seen at the low drive levels. Drive-drug interactions are discussed.—*J. Arbit.*

4544. Mize, Donna, & Isaac, Walter. (Emory U.) Effects of sodium pentobarbital and D-amphetamine on latency of the escape response in the rat. *Psychol. Rep.*, 1962, 10, 643-645.—"The effects of three concentrations of sodium pentobarbital and three concentrations of d-amphetamine on the latency of an escape response were studied in the rat. An analysis of variance indicated a significant difference between the response latencies recorded for the two drugs, but no significant effects related to dosage levels of each drug. The lengthening of the response latency by sodium pentobarbital and the shortening of the response latency by d-amphetamine are discussed as resulting from the action of these drugs on the reticular activating system."—*E. J. House.*

4545. Muecher, H., & Gruenewald, G. (Medizinischen Akademie Duesseldorf, Germany) Pharmacological stimulation of arithmetic performance and graphomotor expansion. *Percept. mot. Skills*, 1962, 15(1), 101-102.—Arithmetic performance and graphomotor expansion proved to be increased by administration of lecithin and vitamin B₁. Data are obtained from a small group of Ss (experimental N=4, control N=4) for a period of 11 weeks. Suggestions are given to interpret the differences between performance behavior and motor effects.—*W. H. Guertin.*

4546. Shchelkunov, E. L. (USSR Acad. Sciences) *Deistvie aminazina, khloratsizina, fenamina i ikh sochetanii na pishchevye i oboronitel'nye uslovnnye refleksy u krysa v labirinte.* [Effect of chlorpromazine, chloracizine, amphetamine, and their combinations on food and defense CR of rats in maze situations.] *Zh. vyssh. nervn. Deiatel.*, 1962, 12(1), 173-180.—Chlorpromazine in doses of 1-6 mg produces prolonged disturbances of both CRs. Phenamine in doses of .5-2 mg. can completely or partly remove or prevent these disturbances. Chloracizine exerts no adrenolytic action but produces certain adrenergic effects. It disturbs the CR only when administered in high doses (10-35 mg.).—*A. Cuk.*

4547. Weitzman, Elliot D., & Ross, Gilbert S. (Walter Reed Army Inst. Research, Washington, D. C.) A behavioral method for the study of pain perception in the monkey. *Neurology*, 1962, 12(4), 264-272.—This article describes one of the few available methods in the study of subjectively experienced pain "in which the animal [himself] continuously indicates the level of intensity of nociceptive stimulus he will just tolerate. . . . A behavioral method is described in which increasing intensities of shock are applied to the gasserian ganglion of alert monkeys via implanted electrodes. The animals reduce the intensity of the painful shock by pressing a lever, thereby regulating and maintaining a level of tolerated intensity. This level can be changed by altering the stimulus parameters, prolonging an experimental

session, and administering a variety of drugs. Morphine induces the animal to find and maintain a higher level of tolerated intensity, and chlorpromazine and pentobarbital produce marked fluctuations in intensity tolerated, whereas methamphetamine and procaine produce a significant decrease in variability and a rise of the level. The relation of these findings to the problem of pain is discussed."—R. Gunter.

ENVIRONMENTAL EFFECTS

4548. Farrer, Donald N., & Reynolds, Herbert H. Chimpanzee performance during exposure to 100% oxygen at 14.7 psi. *USAF ARL tech. docum. Rep.*, 1962, No. 62-8. 23 p.—The effects on performance of breathing 100% O₂ at 760 mm. Hg (14.7 psi.) pressure for 15 hours were investigated using 6 chimpanzees in a counter-balanced design. Each S was tested for 15 hours in both a 100% O₂ environment and a 20% O₂ environment. Performance on continuous and discrete avoidance tasks was required on 5 15-minute sessions for each 15-hour test. The results were as follows: 1 S exhibited a decrement on the continuous avoidance task; 2 animals showed an increase in reaction time. It was concluded that exposure to 15 hours of 100% O₂ at 760 mm. Hg (14.7 psi) produced marginal performance decrements in 2 of the 6 chimpanzees.—*USAF ARL*.

4549. Furry, D. E. Mortality in laboratory animals undergoing explosive decompression. *USN Sch. Aviat. Med. res. Rep.*, 1962, Proj. MR005.13-1002, Subtask 17, Rep. No. 2, ii, 5 p.—During investigations of the effect of explosive decompression in conjunction with other stress conditions, the need arose for information concerning the survival rate of animals being subjected only to the stress of explosive decompression. By a constant time factor of 0.01 sec. animals were explosively decompressed to various terminal altitudes. An LD₅₀ dose for mice undergoing explosive decompression to 30,000 feet was established. The data also indicate a need for further study of guinea pigs undergoing explosive decompression per se in order to establish a lethal and sublethal dose. Mortality of rats undergoing explosive decompression is discussed.—*USN SAM*.

4550. Meier, Gilbert W. (Lab. Perinatal Physiology, San Juan, Puerto Rico) In defense of "Prenatal Anoxia and Irradiation: Maternal-Fetal Relations." *Psychol. Rep.*, 1962, 11(1), 27-31.—A review of some recent literature relevant to comments by Furchtgott and by Levinson (see 37: 674, 675) with respect to a previous study by the writer.—*B. J. House*.

4551. Teichner, Warren H., & Youngling, Edward. (U. Massachusetts) Acclimatization, habituation, motivation, and cold exposure. *J. comp. physiol. Psychol.*, 1962, 55(3), 322-326.—A group of rats were acclimated to a cold environment and trained on a shock-escape response; 5 other groups, acclimated to a normal temperature, were trained at this temperature for varying numbers of days and then trained further in the cold. The cold-acclimated rats showed the greatest response speed and metabolic rate. Response speed after change to the cold environment relative to prechange strength was inversely related to the amount of practice in the original environment. The results are felt to support "a concept of arousal level or generalized drive strength

... [with] metabolic rate as an underlying factor." —*W. A. Wilson, Jr.*

Radiation

4552. Alekseeva, M. S. (Pavlov Inst. Physiology, USSR Acad. Sciences) *Izmeneniia v deiatel'nosti tsentral'noi nervnoi sistemy u potomstva obluchennykh krys*. [Changes in the activity of the central nervous system in the offspring of irradiated rats.] *Zh. vyssh. nervn. Deiatel.*, 1962, 12(1), 169-172.—Ss were 3 generations of Wistar rats whose parents were irradiated before mating with radioactive cobalt for 10 days. A control group was used. In the 1st generation no disturbance was recorded. In the 2nd and 3rd generation some of the rats manifested increased motor activity, spontaneous epileptiform seizures, delayed CR, and inertness of nervous processes. The persistence of scratching, licking and washing reflexes and motor stereotypes pointed to a weakening of the cortical cells function.—*A. Cuk*.

4553. Dzhalagonia, SH. L. (Inst. Experimental Pathology & Therapy, USSR Acad. Medical Sciences) *Izmenenie vysshei nervnoi deiatel'nosti obez'ian pri luchevoi bolezni*. [Changes in the higher nervous activity of monkeys during the irradiation disease.] *Zh. vyssh. nervn. Deiatel.*, 1962, 12(3), 472-480.—Motor food CRs were elaborated in 6 male baboons who had been previously irradiated with X rays (dose of about 400 r). It was found that during acute irradiation disease the equilibrium of the basic nervous processes is disturbed as a result of general depression of excitability of the central nervous system. In the behavioral reactions (defensive, orienting) inhibitory components predominate. Such disturbances last up to one year and undergo fluctuations.—*A. Cuk*.

4554. Eakin, Suzy, & Thompson, William D. (Baylor U.) Effects of microwave radiation on activity level of rats. *Psychol. Rep.*, 1962, 11(1), 192.—For 20 days activity level was measured immediately after 0-, 30-, or 60-min. exposure to low intensity microwave radiation in 15 rats assigned randomly to the 3 exposure groups. Analysis showed a significant difference between days and an interaction between days and radiation treatment.—*B. J. House*.

4555. Fowler, Harry; Hicks, Samuel P., D'Amato Constance J., & Beach, Frank A. (U. Pittsburgh) Effects of fetal irradiation on behavior in the albino rat. *J. comp. physiol. Psychol.*, 1962, 55(3), 309-314.—Rats exposed to 150 r. of X-radiation on the 14th day of fetal life were compared with controls in adulthood. The experimental rats were (a) inferior on the difficult Hebb-Williams problems, (b) inferior on a visual discrimination, (c) slower to adapt to an open-field situation, and (d) less variable in a 2-choice situation. Histology disclosed a deficient neocortex and corpus callosum, with subcortical ectopia.—*W. A. Wilson, Jr.*

Stress

NUTRITION

4556. Cowley, J. J., & Griesel, R. D. Pre- and post-natal effects of a low protein diet on the behaviour of the white rat. *Psychol. Afr.*, 1962, 9, 216-225.—A modified Hebb-Williams test of "in-

telligence," using escape from water as an incentive, was used to study the effects of a low protein diet. Rats on a low protein diet did more poorly than rats on a regular laboratory diet. Though males reared by low protein mothers showed no ill effects, females were slower in handling stress problems and made more errors. Activity, emotionality, and "intelligence" are discussed in relation to prenatal effects of a low protein diet.—*J. L. Walker.*

GENETICS & BEHAVIOR

4557. **Carter, Cedric O.** (Hosp. Sick Children, London, England) **Changing patterns of differential fertility in northwest Europe and North America.** *Eugen. Quart.*, 1962, 9(3), 147-150.—Several recent studies by others are reviewed briefly.—*S. G. Vandenberg.*

4558. **Eiduson, Bernice T., Eiduson, Samuel, & Geller, Edward.** (Reiss-Davis Clinic, Los Angeles) **Biochemistry, genetics, and the nature-nurture problem.** *Amer. J. Psychiat.*, 1962, 119(4), 342-350.—The literature is reviewed in support of an interaction between nature and nurture showing many convergences and "possible identities between phenomena and process on the biological level and those on the psychological." A biochemical genetic model is recommended "for an exposition of the nature of the heredity-environment interaction on the behavioral strata."—*N. H. Pronko.*

4559. **Hildreth, Philip, & Becker, Gweneth Carson.** (U. California) **Genetic influences on mating behavior in *Drosophila melanogaster*.** *Behaviour*, Leiden, 1962, 19(3), 219-238.—Aspects of mating behavior in 2 different types of *Drosophila* females and wild-type males were investigated. Differences in mate preference were discussed, and implications of the findings were presented.—*A. Barclay.*

4560. **Kallman, Franz J. (Ed.)** **Expanding goals of genetics in psychiatry.** New York: Grune & Stratton, 1962. x, 275 p. \$6.75.—A symposium of 33 papers presented at the New York Psychiatric Institute on October 27-28, 1961. The papers are arranged in 5 sections: "Progress in Behavioral and Psychiatric Genetics"; "Progress in Basic Genetics"; "Progress in Genetic Studies of Neurological Disorders, Deafness and Mental Deficiency"; "Function of a Medical Genetics Department in the Field of Mental Health"; "Testimonials and Awards."—*C. T. Morgan.*

4561. **Kaplan, Arnold R.** (Cleveland Psychiatric Inst., O.) **Phenylketonuria: A review.** *Eugen. Quart.*, 1962, 9(3), 151-160.—After information about incidence and biochemistry, large-scale methods of early detection of phenylketonuria and dietary prophylaxis in babies are described. The possibility of detection of heterozygotes ("carriers") which would permit hereditary counseling or earlier detection of phenylketonuria in the baby is briefly mentioned at the end of the article.—*S. G. Vandenberg.*

4562. **Post, Richard H.** (U. Michigan) **Population differences in red and green color vision deficiency: A review, and a query on selection relaxation.** *Eugen. Quart.*, 1962, 9(3), 131-146.—After reviewing the evidence on the incidence of anomalous red-green color vision (which tended until recently to show major differences between populations with lower rates and populations with simple or primi-

tive cultures) it seems reasonable to conclude that deficient color vision is a handicap in primitive life and would result in some selection pressure in favor of normals. Relaxation of this pressure under civilized conditions might well allow increased rates of anomalous color vision. Estimates of mutation rates of 1.25×10^{-4} for protans, and 3.75×10^{-4} for deuterans, per generation would in 160 generations lead to incidence of 9.375×10^{-5} and 2.18125×10^{-4} if selection were completely relaxed.—*S. G. Vandenberg.*

4563. **Scheinfeld, Amram.** **The basic facts of human heredity.** New York: Washington Square, 1961. xii, 273 p. \$6.00 (paper).—"This is a revised and expanded edition of *The Human Heredity Handbook* [see 30: 6641], published by the J. B. Lippincott Company. Some of its 30 chapters are: "Defects in Senses and Body Functions," "Mental Diseases," "The Mental Defects," "Intelligence," "Talent and Genius," "Behavior," "Personality and Temperament," "Criminal Behavior," and "Sex and Sexual Behavior."—*E. L. Borrowman.*

LATERAL DOMINANCE

4564. **Crovitz, Herbert F., & Zener, Karl.** (VA Hosp., Durham, N. C.) **A group-test for assessing hand- and eye-dominance.** *Amer. J. Psychol.*, 1962, 75(2), 271-276.—Accurate tests of handedness are required for classification of Ss. There is also need for a quick and efficient method of identifying Ss with extreme lateralities. This report describes simple group methods of screening Ss with respect to hand- and eye-dominance which are useful as a 1st step in selecting Ss for experimentation on problems concerning the relation of laterality to perception. The tests were given to 1569 general psychology students at Duke University over a period of several years.—*R. D. Nance.*

4565. **Fisher, S.** (State U. New York) **Right-left GSR reactivity differences: A methodological note.** *Percept. mot. Skills*, 1962, 15(1), 150.—The purpose of this note is to indicate that it was prematurely assumed in the previous studies that, if one side of the body manifests larger Galvanic Skin Response amplitudes than the other side, it is the more reactive. Since, in these terms, degree of activation is inverse to skin resistance level, it follows from the right-left reactivity data cited that the body side producing the larger GSR is actually the less reactive of the 2.—*W. H. Guertin.*

4566. **Flescher, Irwin.** **Ocular-manual laterality and perceptual rotation of literal symbols.** *Genet. Psychol. Monogr.*, 1962, 66(1), 3-48.—150 4th-grade children from 11 New York City schools were selected on the basis of standardized laterality criteria. 3 sub-samples represented crossed, right, and left dominance patterns respectively. 5 parallel oral reading test forms were serially presented in a circumscribed visual field. The literal symbols of each of the texts were axially rotated to produce 5 distinctively reoriented images. Perceptual responses (rate and accuracy) of each S were individually recorded under the 5 experimental conditions. The essential finding of this study was the absence of any significant effects of differing laterality patterns on the perception of axially rotated reading stimuli. The results also challenged the assumption that retinal inversion is a determinant in reversal tendencies. Additional

findings demonstrated the significance of directional factors in word perception. The importance on controlling for set, sequence, and variability of text difficulty, in perceptual rotation experiments was also established. (44 ref.)—*Author abstract.*

ANIMAL PSYCHOLOGY

4567. Hogan, Jerry A., & Rozin, Paul. (Harvard U.) An improved mechanical fish-lever. *Amer. J. Psychol.*, 1962, 75(2), 307-308.—Recent interest in behavior of submammals has presented the problem of design of a lever for operant conditioning of aquatic forms. The present lever is very sensitive, sturdy, and more reliable than previous mechanical devices. It is easy and inexpensive to build.—*R. D. Nance.*

4568. Kluver, Heinrich. Behavior mechanisms in monkeys. Chicago, Ill.: Univer. Chicago Press, 1961. xvii, 387 p. \$1.95 (paper).—*C. T. Morgan.*

4569. Mowbray, J. B., & Cadell, T. E. (U. Wisconsin) Early behavior patterns in rhesus monkeys. *J. comp. physiol. Psychol.*, 1962, 55(3), 350-357.—15 rhesus monkeys were tested from birth to 25 days of age, on 10 behavior patterns. These included visual orientation, following, sighting, clasp- ing, etc., and may be considered related to maintain- ing contact with the mother. Procedures and results are presented in detail.—*W. A. Wilson, Jr.*

4570. Smythe, R. H. Animal psychology. Spring- field, Ill.: Charles C Thomas, 1962. vi, 259 p. \$7.50.—A popular approach to an understanding of the be- havior of animals and man. A large number of spe- cies are discussed; some emphasis is placed in the domesticated species. The chapters are: "Looking into the Animal Mind," "What Lies Behind Be- havior," "Animal Perception," "Orientation, Homing, and Migration," "Social Instincts," and "Animals as Individuals."—*C. J. Adkins.*

NATURAL OBSERVATION

4571. Caldwell, Melba C., Haugen, Ruth M., & Caldwell, David K. (U. California, Los Angeles) High-energy sound associated with fright in the dolphin. *Science*, 1962, 138 (Whole No. 3543), 907-908.—A sound produced by the Atlantic bottlenose dolphin (*Tursiops truncatus*) under conditions of fright is described and illustrated. It is suggested that a similar sound may be the basis of the long- distance alarm signal reported in other cetaceans.—*Journal abstract.*

4572. Eisenberg, John F. (U. California, Berk- eley) Studies on the behavior of *Peromyscus maniculatus gambelii* and *Peromyscus californicus parvulus*. *Behaviour, Leiden*, 1962, 19(3), 177-207.—"*Peromyscus californicus* and *Peromyscus maniculatus gambelii* which inhabit the same macro- environment near Berkeley, California, were the Ss of an analysis of adult behavior patterns. Daily activities of single individuals were observed. En- counters between 2 animals were staged to determine the basic behavior patterns employed to each species in its intraspecific social behavior. . . . By combining these laboratory data with the field data . . . a picture of the social organization within these two species was constructed."—*A. Barclay.*

4573. Prakash, I. (Jaipur U.) Behavior of cer- tain mammals towards snakes. *Indian psychol. Bull.*, 1958, 3, 48-51.—A brief report of a project sponsored by UNESCO. In 6 experiments on the reactions of mammals towards snakes, the significant reactions were alarm and panic.—*M. Q. Husain.*

4574. Steinberg, John C., Kronengold, Morton, & Cummings, William C. (U. Miami) Hydro- phone installation for the study of soniferous marine animals. *J. Acoust. Soc. Amer.*, 1962, 34(8), 1090-1095.—A hydrophone assembly was installed on the east bank of the Straits of Florida in order to study the sounds produced by Marine animals in the natural environment. Sounds from 2 bottom-mounted hydrophones, one in 100 ft. of water and the other in 1200 ft., were recorded on dual track, magnetic tape on a 24-hr. basis. More than 25 categories of sounds were observed during the initial period from Novem- ber 1960 to July 1961. A number of sounds showed repetitive, diurnal patterns and possible seasonal pat- terns. Some tentative identifications have been made.—*A. M. Small, Jr.*

4575. Stokes, Allen W. (Utah State U.) The comparative ethology of great, blue, marsh, and coal tits at a winter feeding station. *Behaviour, Leiden*, 1962, 19(3), 208-218.—"The behaviour of four species of titmice (*Parus* spp.) was observed at a winter feeding station. All four species had the same display but their frequency varied. These dif- ferences were correlated with the relative timidity of the four species. Timidity appeared to depend upon the proximate factors of density and territorial be- haviour of the different species rather than being an innate differences. . . . Each behaviour element was associated with specific probabilities of being followed by attack, escape, or staying. An element that was indicative of a predominant escape tendency in one species indicated the same tendency in all other spe- cies. The same was true for attack and staying ten- dencies. These behaviour elements function as a means of both intra- and interspecific communica- tion."—*A. Barclay.*

EARLY EXPERIENCE (INCLUDING IMPRINTING)

4576. Ader, Robert, & Belfer, Myron L. (U. Rochester) Prenatal maternal anxiety and off- spring emotionality in the rat. *Psychol. Rep.*, 1962, 10, 711-718.—25 Long Evans rats (female) were taught a conditioned avoidance response, then mated. During pregnancy, experimental females received CS presentations in the avoidance apparatus twice daily, while control females were not manipulated. "Cross- fostering occurred between experimental and control litters born within a 48-hr. period. . . . It was found that, irrespective of the Sex and Cross-fostering variables, the offspring of manipulated mothers were significantly more emotional (less active) than con- trol offspring as measured by the open-field test at 30 to 40 days of age." Groups did not differ at 135 days of age. Results are interpreted as supporting the view that prenatal experiences can influence offspring be- havior.—*B. J. House.*

4577. Bell, Robert W., & Adams, David A. (Allegheny Coll.) Emotionality following han- dling within the first five days of life in the rat. *Canad. J. Psychol.*, 1962, 16(3), 234-238.—Rats were handled at 60, 84, or 108 hours after birth. Handling

consisted of placing each pup in a tray of shavings for one 3-min. session. Starting at 86 days of age 10 shocks per day were given for 14 days. At 100 days of age emotionality was tested by one 2-min. trial on the Hall open field test. "For rats handled prior to the 3rd day of age, shock produced increased emotionality. For those immediately after the 3rd day of age, shock decreased emotionality."—R. S. Davidson.

4578 Mason, William A., & Green, Phillip C. (Yerkes Labs.) The effects of social restriction on the behavior of rhesus monkeys: IV. Responses to a novel environment and to an alien species. *J. comp. physiol. Psychol.*, 1962, 55(3), 363-368.—Restricted (laboratory-reared) and feral monkeys were compared on several tests involving an albino rat and on reactions to an unfamiliar room. Although they made fewer contacts with their rats, restricted monkeys were relatively less gentle with their rats in the living cages and chose them less often when they were available as a social incentive. The restricted monkeys crouched, rocked, sucked thumbs, etc., when introduced alone into an unfamiliar room. It is suggested that these "self-directed responses [are] derived from infantile responses ordinarily made with reference to the mother."—W. A. Wilson, Jr.

4579. Melzack, Ronald. (Massachusetts Inst. Technology) Effects of early perceptual restriction on simple visual discrimination. *Science*, 1962, 137(Whole No. 3534), 978-979.—Dogs were raised from infancy to maturity in lighted cages that restricted their visual experience but did not deprive them of all patterned stimulation. After they were released from their cages, they had greater difficulty than normally reared littermates in performing a simple black-white discrimination and in subsequent reversal training.—*Journal abstract.*

4580. Stanley, Walter C., & Elliot, Orville. (Roscoe B. Jackson Memorial Lab.) Differential human handling as reinforcing events and as treatments influencing later social behavior in basenji puppies. *Psychol. Rep.*, 1962, 10, 775-788.—"Beginning at 6½ wk. of age, 20 basenji puppies were trained to run to a person, half receiving handling goal treatment and half, contact with a passive person. Ss were then rated on attraction and fear-avoidance to goal person vs. stranger and in apparatus vs. living pens. Further training was then given with half the Ss receiving changed goal treatment. At this time, 4 additional Ss were run as age controls with the nonhandling goal treatment. Finally, the 10 Ss trained with unchanged goal treatment throughout were tested for reactions to punishment administered by a person." Results showed contact with a passive person the stronger reinforcer, not limited to a critical age. Social responses generalized from training to rating situation. Nonhandled puppies showed stronger emotional reactions to punishment than handled puppies.—B. J. House.

REFLEXES & INSTINCTIVE BEHAVIOR

4581. Evans, Howard E. (Museum Comparative Zoology, Cambridge, Mass.) A review of nesting behavior of digger wasps of the genus *Aphanthophis* with special attention to the mechanics of prey

carriage. *Behaviour, Leiden*, 1962, 19(3), 239-259.—A. Barclay.

4582. Fraenkel, Gottfried S., & Gunn, Donald L. The orientation of animals: Kineses, taxes and compass reactions. New York: Dover, 1961. x, 376 p. \$2.00.—This new edition "is an expanded version of the first edition published by Oxford University Press in 1940." An appendix of additional notes and a supplementary bibliography have been added to the original edition.—E. Y. Borrowman.

4583. Hollis, John H. (U. Kansas) Chromatography and behavioral mutations. *Psychol. Rep.*, 1962, 11(1), 182.—A discussion of the importance of research designed to determine whether or not chromatographic patterns are associated with phototactic and geotactic behavioral patterns of *Drosophila*.—B. J. House.

4584. Tinbergen, N., Broekhuysen, G. J., Feekes, F., Houghton, J. C. W., Kruuk, H., & Szulc, E. Egg shell removal by the black-headed gull *Larus ridibundus*: I. A behavior component of camouflage. *Behaviour, Leiden*, 1962, 19(1-2), 75-117.—"The black-headed gull removes the empty eggshell shortly after the chick has hatched. The present paper describes some experiments on the function of this response, and on the stimuli eliciting it. Carrion crows and herring gulls find white eggs more readily than normal gull's eggs; it is concluded that the natural colors of the eggs afford a certain degree of cryptic protection. When normal eggs are given an egg shell at 15 centimeters distance their vulnerability is greatly increased; this 'betrayal effect' decreases rapidly with increased distance between egg and shell. We therefore conclude that egg shell removal helps to protect the brood from predators."—A. Barclay.

4585. Wharton, D. R. A., Black, E. D., Merritt, C. Jr., Wharton, Martha L., Bazinet, M., & Walsh, J. T. (Quartermaster Research & Engineering Cent., Natick, Mass.) Isolation of the sex attractant of the American cockroach. *Science*, 1962, 137(Whole No. 3535), 1062-1063.—The sex attractant of the female American cockroach, "*Periplaneta americana*" (L.), has been collected and isolated by a combination of extraction, distillation, and chromatographic procedures. Progress through these procedures has been followed by bioassay and by ultraviolet spectrophotometry. The attractant has been isolated by gas chromatography, and characterization by mass spectrometry is proceeding.—*Journal abstract.*

MOTIVATION & EMOTION

4586. Bolles, Robert C., & de Lorge, John. (Hollins Coll.) Exploration in a Dashiell maze as a function of prior deprivation, current deprivation, and sex. *Canad. J. Psychol.*, 1962, 16(3), 221-227.—Rats under different conditions of deprivation were observed for 10 minutes in a Dashiell maze. Response measures included quantity and variety of locomotion, speed of entering the maze, and behavior like freezing and grooming which compete with exploration. Prior deprivation, but not current deprivation, significantly increased the amount and variety of locomotion, and decreased competitive behavior. Exploration is a function of environmental stimulus conditions and has only a minor dependence upon the animal's deprivation conditions.—R. S. Davidson.

4587. Furchtgott, Ernest. (U. Tennessee) **Comment on effects of aging on open field behavior.** *Psychol. Rep.*, 1962, 10, 690.—Discussion of a study by Werboff and Havlena (see 37: 4595).—B. J. House.

4588. Griffiths, William J., Jr. (Montana State U.) **Effect of food and water deprivation on shock tolerance of albino rats.** *Psychol. Rep.*, 1962, 11(1), 163-166.—"A total of 250 male inbred Wistar albino rats were tested for tolerance to electric shock in a shock test chamber. Fifty Ss each were tested under no deprivation, 12 hr. water deprivation, 24 hr. water deprivation, 12 hr. food deprivation, and 24 hr. food deprivation. It was found that 12- or 24-hr. food or water deprived Ss tolerated greater shock intensity than non-deprived Ss. It was also found that the longer the deprivation period of water or food, the greater the shock intensity tolerated. The results were discussed in relation to early and recent studies."—B. J. House.

4589. Hildreth, Philip E. (U. California, Berkeley) **Quantitative aspects of mating behavior in *Drosophila*.** *Behaviour, Leiden*, 1962, 19(1-2), 57-72.—When given a choice between red-eyed or white-eyed females, approximately 82% of the male sample copulated first with the white-eyed female. Average length of copulation was longer for 2nd copulations, regardless of type of female.—A. Barclay.

4590. Issac, Walter. (Emory U.) **Evidence for a sensory drive in monkeys.** *Psychol. Rep.*, 1962, 11(1), 175-181.—5 monkeys placed in an experimental chamber had access to a chain which could be pulled to control light or noise stimulation. In 3 experiments, duration of chain-pulling to produce or decrease stimulation was studied under a variety of background and deprivation conditions. "Monkeys did regulate the intensity of stimulation and deprivation conditions affected subsequent behavior. . . . It is believed that a drive for unpatterned sensory input was demonstrated." Results are discussed in relation to central nervous system activity.—B. J. House.

4591. Menzel, E. W., Jr. (Yerkes Lab. Primate Biology) **Individual differences in the responsiveness of young chimpanzees to stimulus size and novelty.** *Percept. mot. Skills*, 1962, 15(1), 127-134.—A single piece of wood, which ranged from 1 square in. to 251 square in. was used. There appeared to be an optimum size of objects for varied manipulatory reactions, smaller objects being handled in cursory fashion, and larger objects being contacted tentatively or not at all. The precise size of the optimum stimulus varied for particular responses, for different Ss, and also in the same S as function of experience with the same or similar objects. Experience tended to increase the size of object required to produce either avoidance or vigorous contact activities; consequently, the behavior of cautious animals came, over a period of weeks, to resemble the initial behavior of bolder animals.—W. H. Guertin.

4592. Miles, Raymond C. (U. Alberta, Canada) **Effect of food deprivation on manipulatory reactions in cat.** *J. comp. physiol. Psychol.*, 1962, 55(3), 358-362.—Objects were suspended by strings from the ceiling, and the number of pulls of these objects was used as a measure of manipulation in cats. Manipulation, and beam-crossing activity in a 2-ft. cage, increased as a function of food deprivation. Ac-

tivity also increased as a function of amount of "activity deprivation," i.e., confinement in a small cage, for periods of 1-9 hr.—W. A. Wilson, Jr.

4593. Novin, Donald, & Miller, Neal E. (Royal Veterinary Coll. Stockholm, Sweden) **Failure to condition thirst induced by feeding dry food to hungry rats.** *J. comp. physiol. Psychol.*, 1962, 55(3), 373-374.—2 groups of hungry rats were made thirsty in a distinctive cage by being fed dry food; rats of one group were then given 3 cc of water there. One control group experienced the cage when satiated for water, and another group were made thirsty elsewhere, and then allowed to drink to satiation in the cage. After 20 days of such training, all groups were tested for amount drunk in the cage after having been satiated elsewhere. No significant differences appeared among the groups.—W. A. Wilson, Jr.

4594. Treichler, F. Robert, & Hall, John F. (Ohio State U.) **The relationship between deprivation weight loss and several measures of activity.** *J. comp. physiol. Psychol.*, 1962, 55(3), 346-349.—The activity of rats in several measuring devices was correlated with weight loss produced by different kinds of deprivation. With increasing weight loss, there was a striking increase in activity wheel scores, but practically no changes in stabilimeter measures and in Dashiell maze activity. Survival measures showed that deprivation involving food withdrawal is more severe than water deprivation, and that deprivation in wheels is more severe than in stabilimeters.—W. A. Wilson, Jr.

4595. Werboff, Jack. (Wayne State U.) **Reply to "Comment on 'Effects of Aging on Open Field Behavior.'"** *Psychol. Rep.*, 1962, 10, 862.—A discussion of comments by Furchtgott (see 37: 4587).—B. J. House.

SENSORY PROCESSES

4596. Christensen, Kent R. (Bell Telephone Labs., Whippany, N. J.) **Isohedonic contours in the sucrose-sodium chloride area of gustatory stimulation.** *J. comp. physiol. Psychol.*, 1962, 55(3), 337-341.—Rats were given preference tests between sucrose standard solutions and comparison solutions containing both sucrose and NaCl, using an "up and down" method to determine the order of presentation of stimuli. Isohedonic curves were formed by determining which compound solutions are equally preferred to the various sucrose standards. "The shape of the contours correlates well with current preference and electrophysiological data."—W. A. Wilson, Jr.

4597. Crampton, George H., & Schwam, Wallace J. (USA Medical Research Lab., Fort Knox, Ky.) **Turtle vestibular response to angular acceleration with comparative data from cat and man.** *J. comp. physiol. Psychol.*, 1962, 55(3), 315-321.—The head-turning response of the box turtle (*Terrapene c. carolina*) to angular acceleration and deceleration was studied in the dark. No saccadic movements were seen, and habituation of the response did not take place. No vestibular nystagmus could be recorded electrically in darkness, nor was postrotatory nystagmus observed. The similarity between turtle head turning and slow phases of cat and human ocular nystagmus suggests that head turning is a simple extended slow-phase deviation not interrupted by fast saccadic movements.—W. A. Wilson, Jr.

4598. Frings, Hubert, & Frings, Mable. (U. Hawaii) **Pest control with sound: I. Possibilities with invertebrates.** *Sound*, 1962, 1(6), 13-22.—The behavior of invertebrates in response to sound is reviewed. The conclusions are almost entirely negative. That is, either the animals do not respond in any predictable fashion or information is lacking regarding their response.—*A. M. Small, Jr.*

4599. Ganz, Leo. (U. Chicago) **Hue generalization and hue discriminability in Macaca mulatta.** *J. exp. Psychol.*, 1962, 64(2), 142-150.—"An experiment evaluated the widely held view that slope of generalization gradient and resolution capacity are inversely related. Four rhesus macaques were trained to emit a simple operant to a monochromatic hue in the 450-630 m μ range. Generalization was then measured under extinction across this range. This gradient was, in all cases, almost horizontal. Operants discriminated with respect to wave length (S^d — S^d about 60 m μ apart) were then developed in these Ss and 2 additional Ss. . . . Each S was trained to discriminate and generalize three successive pairs of stimuli. A number of the gradients revealed differences in slope which were in accordance with the predicted inverse relationship. . . . It was concluded that some infrahuman generalization gradients do reflect the S^d —SG distance in cumulated jnd's. Some factors that may have masked this relationship previously were discussed."—*J. Arbit.*

4600. Pick, Herbert L., Jr., & Kare, Morley R. (U. Wisconsin) **The effect of artificial cues on the measurement of taste preference in the chicken.** *J. comp. physiol. Psychol.*, 1962, 55(3), 342-345.—Chickens could drink freely from a container of water, or from a less preferred solution of NaCl or quinine sulfate. After 18 days, during which a color cue distinguished the 2 fluids, Ss continued to choose the container of the color previously paired with water even when water was presented in both containers. Consumption of a disliked solution was less when the position of the solutions was never changed than when it was changed 5 times a day. However, consumption of the unpleasant solution was somewhat greater when the solutions were switched once a day, presumably due to the reversals required in the learning of position that took place each day.—*W. A. Wilson, Jr.*

4601. Popova, N. S. (USSR Acad. Medical Sciences) **Sravnitel'nye dannye po dvizheniiu i vzaimodeistviu nervnykh protsesov v slukhovom i zritel'nom analizatorakh u sobak i nizshikh obez'ian.** [Comparison of the movement and the interaction of nervous processes in the acoustic and optical analyzer of dogs and monkeys.] *Zh. vyssh. nervn. Deiatel.*, 1962, 12(1), 88-94.—Ss were 4 monkeys (3 rhesus and 1 marmoset) and a nonspecified number of dogs. Food CR were established using visual and auditory stimuli. In dogs, strong differences appeared between the auditory and visual processes: the auditory analyzer seemed to function better than the visual. In monkeys these differences were less pronounced.—*A. Cuk.*

4602. Young, Paul Thomas, & Christensen, Kent R. (U. Illinois) **Algebraic summation of hedonic processes.** *J. comp. physiol. Psychol.*, 1962, 55(3), 332-336.—Rats maintained on an unlimited supply of food and water were given a series of tests in the

Young preference tester. Choices were between a sucrose solution and a compound solution of sucrose and NaCl. Several concentrations of both solutions were used. Although many of the tests yielded indiscriminate behavior, there was evidence that the palatability level of a compound solution is an algebraic sum of the hedonic properties of the concentrations of the 2 solutions used.—*W. A. Wilson, Jr.*

4603. Young, Paul Thomas, & Kappauf, William E. (U. Illinois) **Apparatus and procedures for studying taste-preferences in the white rat.** *Amer. J. Psychol.*, 1962, 75(3), 482-484.—The apparatus uses liquid foods or substances in solution. 2 solutions are simultaneously available to the S for 3-4 minutes. Advantages of the present technique include: (a) use of a forced-sampling sequence prior to the preference test, (b) a method of quantifying the S's contact with each solution, and (c) the speed with which preference studies can be conducted. A picture of the apparatus is shown.—*R. D. Nance.*

LEARNING

4604. Grosslight, J. H., Harrison, P. C., Weiser, C. M. (Kent State U.) **Reinforcement control of vocal responses in the mynah bird.** *Psychol. Rec.*, 1962, 12, 193-201.—"In the first study, differential reinforcement of vocal responses produced significantly different frequencies of responding to obtain food. In the second study, the vocal response was brought under specific environmental stimulus control. The relationship of these findings to the position that vocal behavior in sub-human species is difficult, if not impossible, to modify by operant-reinforcement procedures is discussed."—*R. Seidel.*

4605. Pereboom, A. C. (Louisiana State U.) **Continuous recording of spontaneous runway behavior: A normative and methodological study.** *Psychol. Rep.*, 1962, 11(1), 223-237. (Monogr. Suppl. No. 2-V11).—"A continuous, 40-min. tracking record of spontaneous unrewarded locomotion was taken on two successive days from 24 naive adult albino rats. S's running surface was a 12-ft. elevated runway which was placed in a fully illuminated, moderately rich, extra-maze environment." A detailed description of the data is given, including such measures as traversal frequency as a function of time, reciprocal traversal time as a function of traversals, distributions of traversal times, and others. Results are related to theories of learning, fear, and curiosity.—*B. J. House.*

4606. Sedlacek, J. (Charles U., Prague, Czechoslovakia) **Functional characteristics of the centre of the unconditioned reflex in elaboration of a temporary connection in chick embryos.** *Physiol. Bohemoslov.*, 1962, 11(4), 313-318.—"The development of the latent period of the unconditioned swallowing movements was studied in chick embryos from the 17th to the 21st day of incubation. It was found that the latent period gradually shortened, especially in elaboration of a temporary connection, and that the rate of swallowing movements increased."—*C. T. Morgan.*

4607. Sedlacek, J. (Charles U., Prague, Czechoslovakia) **Notes on the characteristics of the temporary connection in chick embryos.** *Physiol. Bohemoslov.*, 1962, 11(4), 307-312.—"The author studied the influence of the length of the interval

between the conditioned stimuli and the effect of strychnine on the effectiveness of the temporary connection between a sound stimulus and an unconditioned defence or swallowing reflex in chick embryos from the 17th to the 21st day of incubation. . . . From these findings it is concluded that the basis of the temporary connection in 17-day chick embryos is evidently the principle of the summation reflex and from the 18th to the 20th day the principle of the dominant. Only on the 21st day does it display characteristics of a genuine conditioned reflex."—C. T. Morgan.

4608. Sedlacek, J. (Charles U., Prague, Czechoslovakia) **Temporary connections in chick embryos.** *Physiol. Bohemoslov.*, 1962, 11(4), 300-306. —"A temporary connection was elaborated by four different methods in chick embryos, from the 17th to the 21st day of incubation. The firmness of the association increases progressively, with significant differences between the 17th and 18th day and the 20th and 21st day."—C. T. Morgan.

Conditioning

4609. Brogden, W. J. (U. Wisconsin) **Contiguous conditioning.** *J. exp. Psychol.*, 1962, 64(2), 172-176. —"Contiguous conditioning is represented by cage-turning CRs of cats to a tone CS. This CR is dependent upon a prior conditioning procedure during which each occurrence of the cage-turning response results in the sounding of the tone. Initial tests of the tone prior to the conditioning training elicited no cage-turning responses. A control group, not given the tone CS, made the same number of responses in the rotator prior to the test for contiguous conditioning that the experimental group made during its training procedure. Tests with the tone CS presented when the S had been quiet for 30 sec. or more were given to all Ss. The frequency of CR of the experimental group was significantly greater than the frequency of response of the control group. The evidence of contiguous conditioning demonstrates that contiguity of stimulus and response is a sufficient condition for learning." The theoretical implications of this finding are discussed.—J. Arbit.

4610. Brogden, W. J. (U. Wisconsin) **The experimenter as a factor in animal conditioning.** *Psychol. Rep.*, 1962, 11(1), 239-242. —"Data are reported on the speed of acquisition of a conditioned shock avoidance response in four groups of rabbits, each of which was trained by a different E. Additional data for two Es involves speed of conditioning of a first and second group of rabbits. Although there was no statistically significant difference between Es for the first set of data, the second set shows both a significant E practice effect and a significant difference between Es."—B. J. House.

4611. Frolov, V. M. (Kirov Military Medical Acad., Leningrad, USSR) **Zavisimost' kislотно-оборонitel'nykh uslovykh i bezuslovykh reflektorov u sobak ot sily bezuslovnogo razdrasheniia.** [Dependence of conditioned and unconditioned acid defensive reflexes upon the strength of the US.] *Zh. vyssh. nervn. Deiatel.*, 1962, 12(2), 267-272. —Salivary CRs were elaborated in 7 dogs using sound and light stimuli and different solutions of hydrochloric acid as reinforcement. It was found that the amount of solution of hydrochloric acid can be a reliable measure of the strength of the US. This method of

investigation "makes possible to record objectively the functional changes occurring both in the cortex and in the subcortical areas within a broad range—from the threshold to the ceiling."—A. Cuk.

4612. Gelber, B. (Basic Health Research Inst.) **Acquisition in *Paramecium aurelia* during spaced training.** *Psychol. Rec.*, 1962, 12, 165-177. —"Four groups, each consisting of 12 food deprived cultures of *Paramecium aurelia*, had 3 blocks of 5 training trials with 1 minute between trials within blocks and a half hour between blocks. Cultures differed in nuclear condition, deprivation time and fertilization age. A 5 way analysis of variance showed that nuclear condition, trials within blocks, delays between blocks and age had highly significant effects. Slightly increased time of deprivation significantly affected the vegetative but not the autogamous *paramecia*. Biological implications and techniques for investigating psychological concepts at the cellular level are discussed."—R. Seidel.

4613. Gelber, B. (Basic Health Research Inst.) **Reminiscence and the trend of retention in *Paramecium aurelia*.** *Psychol. Rec.*, 1962, 12, 179-192. —"Two groups of cultures of *Paramecium aurelia*, one vegetative and the other autogamous, were tested for retention at 25 minutes, a 1, 2, 3, 4, 6, 7, 12, and 19 hours after receiving spaced training. Lapse of time since training differentially affected response which rose up to 12 hours, but dropped almost to zero at 19 hours. Trends over time correlated significantly in the 2 groups, but only in the vegetative group did performance on tests correlate with acquisition responses."—R. Seidel.

4614. Gonzales, R. C., Milstein, Sandra, & Bitterman, M. E. (Bryn Mawr Coll.) **Classical conditioning in the fish: Further studies of partial reinforcement.** *Amer. J. Psychol.*, 1962, 75(3), 421-428. —3 experiments using goldfish were performed. Both spaced (24-hour) and massed practice were used. Level of acquisition was lower after partial than after consistent reinforcement. There was no "indication of the paradoxical effect of partial reinforcement on initial resistance to extinction which appears so dependably in work with mammals." There was no change in relative resistance with repeated extinctions.—R. D. Nance.

4615. Gorsheleva, L. S. (Inst. Higher Nervous Activity, USSR Acad. Sciences) **Osobennosti formirovaniia pishchevykh dvigatel'nykh uslovykh reflektorov u belykh krysov v rannem postnatal'nom periode.** [Peculiarities of motor food CR in white rats at an early postnatal period.] *Zh. vyssh. nervn. Deiatel.*, 1962, 12(2), 326-331. —CR to several stimuli were established in 27 young rats (aged 20 days). It was found that the excitatory processes in the central nervous system predominate over the active inhibitory processes. The external unconditioned inhibition is very pronounced. With age, the cortical processes become stronger and are characterized by wide generalizations.—A. Cuk.

4616. Green, Phillip C. (U. Wisconsin) **Learning, extinction, and generalization of conditioned responses by young monkeys.** *Psychol. Rep.*, 1962, 10, 731-738. —15 rhesus monkeys were equally divided into 1-day, 30-day, and 300-day groups according to age at beginning of training. On each

training trial, a tone was presented, overlapping during the last of 3 sec. with an electric shock delivered through a floor grid. No differences among the groups were found during 10 days acquisition for a combined measure of conditioning activity and conditioned crouching. The 1-day group had inferior retention of the CR but the groups did not differ in generalization tests. "Further evidence of age-related differences was found in the distribution of the responses, the neonatal animals showing much CC [conditioned crouching] behavior, the 300-days Ss a preponderance of CA [conditioned activity] behavior, while the 30-day Ss showed a mixture of both types of responses."—B. J. House.

4617. Kozlova, L. N. (Pavlov Inst. Physiology, USSR Acad. Sciences) *O korreliatsii mezhdu intensivnost'iu vneshnego tormozheniia v ontogeneze sobak i vozrastnoi dinamiko skorosti zamykaniia uslovnykh svyazei.* [Correlation between the intensity of external inhibition in young dogs and the age dynamics showing in the speed of formation of conditioned connections.] *Zh. vyssh. nervn. Deiatel.*, 1962, 12(2), 273-278.—Motor alimentary CR were elaborated in 23 puppies (age 1 to 6 months) using sound as CS. Stimuli which produced external inhibitions were sounds of a metronome, of a bell, and of a rattle. CR forms faster at the age of 2-3 months when there is hardly any external inhibition. The correlation between the intensity of the external inhibition and the appearance of the first CR amounts to .995.—A. Cuk.

4618. McAllister, Wallace R., & McAllister, Dorothy E. (Syracuse U.) *Postconditioning delay and intensity of shock as factors in the measurement of acquired fear.* *J. exp. Psychol.*, 1962, 64(2), 110-116.—"Two experiments concerned with the classical conditioning of fear in rats and the measurement of its effect through the learning of another response (hurdle jumping) were conducted. In Exp. I the effect of intensity of shock . . . used during conditioning was investigated. At each shock level one group was given forward conditioning (light-shock) and one, backward conditioning (shock-light). For all groups hurdle-jumping trials in which S could escape the light by jumping a hurdle were administered immediately following conditioning and were continued on the next day. Evidence of learning was obtained following both forward and backward conditioning but only on the second hurdle-jumping day. Performance, in general, was better following conditioning with the higher shock levels. The results of Exp. II indicated that learning does occur on the first day of hurdle jumping when a postconditioning delay of 1 day is used."—J. Arbit.

4619. Makhalovskaia, D. B. (Sechenov Inst. Evolutionary Physiology, USSR Acad. Sciences) *Issledovanie uslovnykh refleksov, vyrobotannykh na baze evoliutsioniruiushchikh spetsializirovannykh vrozhdennykh refleksov u krolikov.* [CR elaborated on the basis of developing specialized congenital reflexes in rabbits.] *Zh. vyssh. nervn. Deiatel.*, 1962, 12(2), 312-317.—Ss were 32 rabbits of the age from 5 to 75 days. CS was a sound of 600 cycles, the US, electrical stimulation of the postero-lateral surface of the neck. The stimulation produced in the 1st 2 to 3 weeks apparent scratching (CR) and shaking movements (UR). An assumption is made

that subordinate relations exist between the shaking and scratching center.—A. Cuk.

4620. Mikhneva, N. E. (Inst. Experimental Medicine, USSR Acad. Sciences) *Dvigatel'nye uslovnye reaktsii sobaki na svetu i v temnote pri trudnykh nervnykh zadachakh.* [Motor CR of dogs performing difficult nervous tasks under conditions of light and darkness.] *Zh. vyssh. nervn. Deiatel.*, 1962, 12(2), 302-305.—Conditioned activity of a dog can be easily disturbed by an extra strong stimulus under condition of darkness but not of light. A very strong sound of a rattle produces neurotic symptoms which disappear when light is switched on. This is ascribed to a drop in the general tone and working capacity of the cerebral cortex in darkness.—A. Cuk.

4621. Movchan, N. P. (Inst. Physiology, Acad. Sciences, USSR) *O nalichii stadii dvigatel'noi ritmicheskoi aktivnosti v razvitiu zapredelnogo tormozheniya.* [On the stage of rhythmic motor activity in the development of supraliminal inhibition.] *Dokl. Akad. Nauk SSSR*, 1962, 144(3), 678-681.—In conditioning experiments with dogs in which the intensity of the auditory CS was raised to extremely high values, the dogs first displayed a rhythmic motor activity and then full inhibition of the conditioned response. The situation involved first getting a stable conditioned response of leg flexion to an auditory stimulus of 55 db. intensity. Then the intensity was slowly increased to 125 db. Repeated application of this very intense stimulus resulted first in rhythmic flexions of the leg and finally in complete inhibition of the CR.—H. Pick.

4622. Murav'eva, N. P. (Inst. Experimental Medicine, USSR Acad. Medical Sciences) *Obrazovanie pishchevykh uslovnykh refleksov na dvizhishchiesia predmety u sobak.* [Food conditioning to moving objects in dogs.] *Zh. vyssh. nervn. Deiatel.*, 1962, 12(3), 500-507.—Conditioned salivary reflexes were elaborated in 5 dogs in response to various auditory stimuli and to moving objects (a rubber frog and a pendulum were used). CR to moving objects was very fast in some cases, in others it was slow and delayed the unconditioned motor food reaction. This is explained by the nature of the objects which are complex optical stimuli. When used as CS they cause a motor reaction inherent in them (fixing the object with the eyes) and a reaction peculiar to the UR with which they are paired.—A. Cuk.

4623. Travina, A. A. (Inst. Experimental Medicine, USSR Acad. Medical Sciences) *K voprosu o podvizhnosti nervnykh protsessov.* [Mobility of nervous processes.] *Zh. vyssh. nervn. Deiatel.*, 1962, 12(2), 260-266.—CRs were established in 2 dogs to a sequence of acoustic and cutaneous stimuli. Food and hydrochloric acid were used as reinforcements. The general conclusion drawn from the analysis of the data was that the nervous processes originating in the cortical areas of the analyzers are more mobile than the processes originating in the structures responsible for the unconditioned responses.—A. Cuk.

4624. Varga, M. E., & Pressman, I. A. M. (Physiological Lab., USSR Acad. Sciences) *O roli poriadka primeneniia i sily sochetamykh razdrazhitelei v zamykanii uslovnoi svyazi.* [The

role of the sequence and the strength of paired stimuli in closing conditioned connections.] *Zh. vyssh. nervn. Deiatel.*, 1962, 12(1), 110-117.—Passive lifting of the paw was used as the CS in the formation of CR in 9 dogs. The CS was presented in different combinations, either preceding or following the US. It was established as a general rule that "CR is formed on the basis of the spreading of excitation from the focus of the first to the focus of the second stimulus." The stability of the CR depended to a great extent upon the strength of the US. Backwards conditioning appeared very unstable.—*A. Cuk.*

Discrimination

4625. Besch, Norma F., Anderson, Joyce E., & Horel, James A. (Columbus Psychiatric Inst. Hosp.) **Non-correction method in drive discrimination.** *Psychol. Rep.*, 1962, 11(1), 246.—An experiment with 25 rats in which similarity of correct and incorrect goal arms of a T-maze was varied led to the conclusion that "stimulus characteristics of the detention environment used in the non-correction method are not critical variables in learning a drive discrimination."—*B. J. House.*

4626. D'Amato, M. R., & Jagoda, H. (New York U.) **Overlearning and position reversal.** *J. exp. Psychol.*, 1962, 64(2), 117-122.—"Four experiments were conducted involving extensive overtraining of a position discrimination habit in rats. In Exp. I, II, and III, reversal learning of the position response was consistently and markedly retarded in those Ss that had a moderate proportion of their postcriterion trials forced to the incorrect side. In all three experiments, however, Ss that had the same proportion of postcriterion trials forced to the correct side did not show the overlearning effect, i.e., they did not reverse faster than control Ss that received no overlearning experience. In Exp. IV, run with all free trials, the overlearning effect again failed to appear, although the number of postcriterion trials was increased to a maximum of 800."—*J. Arbit.*

4627. Fox, Robert, & Cormack, Robert H. (Longview State Hosp., Cincinnati, O.) **Response to change of pattern and of depth in the rat.** *Psychol. Rep.*, 1962, 11(1), 299-302.—Response to change was investigated in 5 experiments with 16 rats each. The 1st experiment confirmed previous findings. Rats were exposed to a T-maze with 1 black and 1 white goal arm but prevented from entering the goal arms by Plexiglas doors. On test trials, 1 min. later, given a choice between 2 identical arms, either black or white, rats showed a significant preference for the arm which had changed in brightness. The same design with pattern and alley length changes produced no significant preferences for the changed arm.—*B. J. House.*

4628. Honig, Werner K. (Denison U.) **Prediction of preference, transposition, and transposition-reversal from the generalization gradient.** *J. exp. Psychol.*, 1962, 64(3), 239-248.—"The relationship between stimulus preference and the response strength of singly presented stimuli was investigated with the use of the generalization gradient to provide stimuli of different strengths. After being trained to peck at a 550-m μ stimulus on a VI schedule, pigeons were given two concurrent generalization tests: one consisting of a single stimulus values rang-

ing from 490 to 610 m μ , and one consisting of pairs of such values. . . . Two groups of birds then received discrimination training between 550 m μ as S+ and 560 m μ as S-, one with successive stimulus presentations and one with simultaneous. After this, the generalization and preference tests were administered a second time. . . . An arithmetic model is proposed for the prediction of responses to members of stimulus pairs from single-stimulus values. The determinations of stimulus preference by the generalization gradient follows directly, and transposition is seen to be no more than a special case. The differential results obtained from successive and simultaneous discriminations are discussed. . . . The operant situation is analyzed in terms of some simple response dimensions to provide a basis for the arithmetic model from which double-stimulus values are predicted.—*J. Arbit.*

4629. Leary, R. W. (U. Oregon) **"Spontaneous reversal" in the serial-discrimination reversal learning of monkeys.** *Canad. J. Psychol.*, 1962, 16(3), 228-233.—A serial-discrimination technique was employed for the presentation of pairs of multi-dimensional objects in the Wisconsin General Test Apparatus. After 1, 3, or 6 learning runs, up to 6 runs were given with the "correct" stimulus reversed. With either 3 or 6 runs in original learning there was a small but significant decrease in the efficiency of reversal learning.—*R. S. Davidson.*

4630. Pribram, Karl H., Gardner, Kenneth W., Pressman, Gerald L., & Bagshaw, Muriel. (Stanford U.) **An automated discrimination apparatus for discrete trial analysis (DADTA).** *Psychol. Rep.*, 1962, 11(1), 247-250.—"To overcome certain limitations of operant conditioning equipment, the DADTA was developed. Description of the general construction, actual use, and advantages are given."—*B. J. House.*

4631. Sutherland, N. S., Carr, A. R., & Mackintosh, J. A. (Oxford U., England) **Visual discrimination of open and closed shapes by rats: I. Training.** *Quart. J. exp. Psychol.*, 1962, 14(3), 129-139.—Rats were trained to discriminate between 2 pairs of shapes: in each pair one shape was "open," the other "closed." $\frac{1}{2}$ the animals were trained to discriminate between a pair of shapes which differed in their horizontal projections, the remainder between a pair which differed in their vertical projections. After being trained with both shapes exposed simultaneously, some rats were retrained to respond correctly when the positive and negative shapes were shown singly. The main findings were as follows: (a) Rats discriminated more readily between shapes whose horizontal projections differed than between shapes with differing vertical projections. (b) At the beginning of training rats exhibited a marked preference for the more open shape of the 2. (c) During simultaneous training, they learned to respond to the open shape more accurately than they learned to respond to the closed. (d) Rats learned to approach the positive shape rather than to avoid the negative. (e) Presence or absence of shock as punishment for a wrong response and massing or distributing of trials did not affect performance during learning.—*Journal abstract.*

4632. Sutherland, N. S., & Carr, A. E. (Oxford U., England) **Visual discrimination of open and**

closed shapes by rats: II. Transfer tests. *Quart. J. exp. Psychol.*, 1962, 14(3), 140-156.—Rats which had been trained to discriminate between an open and a closed shape were given 3 series of transfer tests. 2 main methods of giving the tests were used: (a) successive transfer tests. Transfer shapes were shown singly, and the animal responded by going towards the shape or to the opposite side of the apparatus to that on which the shape was exposed. In one series of tests using this method, 20 different shapes were shown. (b) Simultaneous transfer tests. Transfer shapes were shown in pairs, and the animal responded by approaching one member of the pair. In 1 series of tests given by this method, every possible pair which could be drawn from the 20 shapes used in the successive method was presented. On the basis of the tests, it was possible to rank the shapes in order of similarity to the original training shapes for rats. It was found that results obtained by the 2 methods were consistent: the rank order correlation found between the 2 rank orders obtained with the different methods was 0.87. The 1st method was shown to be the more satisfactory.—*Journal abstract.*

4633. Zakher, IU. IA. (USSR Acad. Sciences) *Differentsirovanie svetovyykh usloviykh razdrzhitelei pri odnovremennom i posledovatel'nom ikh pred'yavlenii u primatov.* [Discrimination of light CS in primates under conditions of simultaneous and successive presentation.] *Zh. vyssh. nervn. Deiatel.*, 1962, 12(1), 95-102.—4 monkeys were trained to discriminate between light circles of different diameters. Reactions were reinforced by food. When stimuli were presented simultaneously, the number of correct responses amounted to 91-95%. In the case of successive presentation, disinhibition of discriminations often took place. This could have been due to greater difficulty in differentiating successive stimuli, and to the fact that in the case of simultaneous presentation of stimuli a direct connection is preserved between the stimuli and the reinforcement.—*A. Cuk.*

Avoidance

4634. Cadwallader, T. C., & Harker, G. S. (USA Medical Research Lab., Fort Knox, Ky.) *The differentiation of an avoidance response from an escape response: A note and circuit.* *USA Med. Res. Lab. Rep.*, 1962, No. 546. ii, 4 p.—This report describes the logic of and a circuit for differentiating an avoidance response from an escape response. An electronic gate has been developed which, in conjunction with an electronic timer, times the duration of electric shock which an animal actually receives. By noting the presence or absence of shock it is possible to differentiate an escape response from an avoidance response.—*USA MRL.*

4635. Fowler, Harry, & Trapold, Milton A. (U. Pittsburgh) *Escape performance as a function of delay of reinforcement.* *J. exp. Psychol.*, 1962, 63(5), 464-467.—Rats were trained to run from an alley where they received a continuous electric shock to a goal box where shock was terminated at 1 of 6 time delays. The results indicated that speeds were slower the greater the delay of shock termination at the goal: this effect was greater for speeds in the alley section of the runways and less for speeds at the start section. "These results are analogous to

those obtained in runway situations where delayed appetitive rewards have been employed and, as such, they indicate, along with those findings previously reported, that similar behavioral laws underlie both appetitive and escape conditioning."—*J. Arbit.*

4636. Hoffman, Howard S., & Fleshler, Morton. (Pennsylvania State U.) *The course of emotionality in the development of avoidance.* *J. exp. Psychol.*, 1962, 64(3), 288-294.—". . . rats were trained to press a bar to avoid shock while they were concurrently engaged in pressing a plate for food. The course of emotionality was tracked by assessing the several levels of suppression of ongoing plate presses during each of the various phases of the acquisition process. The results revealed a complex relationship between the level of performance on avoidance and the several concurrent indices of emotionality. In general, the results support the dual process hypothesis that conditioned emotionality controlled by the warning signal provides motivation for the avoidance response, while a decline in emotionality (with the offset of the signal) reinforces the response. The results also suggest that the lingering motivational aftereffects of aversive stimulation play an important role in the early phases of acquisition."—*J. Arbit.*

4637. Karas, George G., Willham, Richard L., & Cox, David F. (Iowa State U.) *Avoidance learning in swine.* *Psychol. Rep.*, 1962, 11(1), 51-54.—"Three-week-old pigs [N=60] reach a level of performance in avoidance learning [in a shuttle-box] comparable to that found in other species. Spacing sets of trials by days increased the performance over massed practice. Thirty trials, 10 per day, gave a convenient measure of learning, sufficiently sensitive to individual differences for genetic analysis."—*B. J. House.*

4638. Tokarenko, I. I. (Medical Inst., Donets, USSR) *Izmenenie dykhatel'nogo komponenta dvigatel'noi oboronitel'noi uslovnoi reaktzii pri razlichnykh funktsional'nykh sostoianiiakh dykhatel'nogo tsentra.* [Change of the respiratory component of the conditioned motor defensive reaction under various functional conditions of the respiratory center.] *Zh. vyssh. nervn. Deiatel.*, 1962, 12(1), 128-134.—Defense CR and discriminatory reactions to sound and light stimuli were developed in 6 dogs. It appears that the nature of the respiratory component of the defense CR depends upon the initial functional state of the respiratory center. Positive CS and electrical US result in an increased amplitude and rate of respiration in cases of initial slow and slight breathing. The same stimulation exerts an inhibitory influence in cases of initial fast and deep breathing. With a high functional activity of the respiratory center transmarginal inhibition takes place.—*A. Cuk.*

4639. Vatsuro, E. G., & Shepeleva, V. K. (USSR Acad. Sciences) *O vzaimodeistvii zapakhovogo i zvukovogo, a takzhe zapakhovogo i svetovogo komponentov odnovremennnykh kompleksnykh razdrzhitelei.* [Interaction of olfactory and acoustic as well as olfactory and visual components of simultaneous complex stimuli.] *Zh. vyssh. nervn. Deiatel.*, 1962, 12(1), 103-109.—Defensive CRs, using electric shock as reinforcement, were estab-

lished in 4 dogs in response to complex stimuli. When the reflex was formed to a simultaneous complex stimulus consisting of olfactory and acoustic components, both components possessed the same signal activity. When the CR was established to an olfactory stimulus first, the olfactory signal predominated. This is related to the phenomenon of "leading afferentation." When the reflex is a reaction to an olfactory-visual combination, the complex is perceived as a single stimulus.—*A. Cuk.*

Reinforcement

4640. Armus, Harvard L., De Voy, W. Edwin; Eisenberg, Terry, & Schroeder, Stephen R. (U. Toledo) Effect of primary reinforcement schedule on secondary reinforcement strength with continuous secondary reinforcement during training. *Psychol. Rep.*, 1962, 11(1), 203-208.—"Two groups of rats [N = 118] were trained on a lever-pressing task, one group on a CRF schedule of food reinforcement and one on a FR-6 schedule. For both groups, each lever response produced a 2-sec. combination light-sound stimulus. . . . The animals were then tested in a two-lever situation in which pressing one lever produced the light-sound stimulus and pressing the other lever did not." Failure to obtain group differences was contrasted with a previous finding that FR training produced greater secondary reinforcement effects with a 100% association of secondary and primary reinforcement instead of the 17% association of the present study.—*B. J. House.*

4641. Capaldi, E. J., & Hart, Dick. (U. Texas) Influence of a small number of partial reinforcement training trials on resistance to extinction. *J. exp. Psychol.*, 1962, 64(2), 166-171.—". . . rats were trained to traverse a straight alley under either continuous, irregular, or single alternation of reward. In the initial experiment, which employed 27 training trials, the continuous group was found to be least resistant to extinction. The single alternation group was found to be more resistant than the irregular one. Previous experiments have shown that following a moderate number of training trials the alternation and irregular groups are about equally resistant to extinction, while following considerable training the alternation group is less resistant than the irregular one. In the second experiment, extinction training was given following only 18 training trials. While the irregular and continuous groups failed to differ in extinction, the single alternation group showed the typical partial reinforcement effect. The findings were discussed in connection with the Hull-Sheffield aftereffects hypothesis."—*J. Arbit.*

4642. Collier, George (U. Missouri) Some properties of saccharin as a reinforcer. *J. exp. Psychol.*, 1962, 64(2), 184-191.—"The relations between concentration, volume per reinforcement, interval between reinforcement, degree and kind of deprivation, and the rate of responding for saccharin solutions in the Skinner box were explored. . . . The relations found for saccharin were similar to those found for sucrose. The implications of the differences between saccharin and sucrose, e.g., osmotic and metabolic, were examined for an account of these relations in terms of the view that there is a threefold locus of events governing the rate of responding, the proximal reinforcing stimuli, the momentary ingestive

load, and the nutritive condition of the animal."—*J. Arbit.*

4643. Cotton, John W., Jensen, Glen D., & Lewis, Donald J. (U. California, Santa Barbara) Spontaneous recovery interval as a factor in reacquisition of T maze behavior. *J. exp. Psychol.*, 1962, 63(6), 555-562.—Albino rats were given pre-training, acquisition and extinction trials in a single-unit T maze. Different groups received spontaneous recovery periods ranging from 1 min. to 9 days prior to a reacquisition session. Neo-Hullian equations were used to fit mean running speeds and percentage of correct responses for each group on each trial.—*J. Arbit.*

4644. Egger, M. David, & Miller, Neal E. (Yale U.) Secondary reinforcement in rats as a function of information value and reliability of the stimulus. *J. exp. Psychol.*, 1962, 64(2), 97-104.—In a situation in which more than one stimulus predicts primary reinforcement it was hypothesized that the more informative stimulus will be the more effective secondary reinforcer and that a redundant predictor of primary reinforcement should not acquire secondary reinforcement strength. Using rats in a bar press situation with appropriate controls for pseudoconditioning, unconditioned rates of pressing and for any activating effect of the stimuli, the hypotheses were supported. The findings are noted as being in agreement with the discriminative stimulus hypothesis of secondary reinforcement.—*J. Arbit.*

4645. Ehrenfreund, David, & Badia, Pietro. (Adelphi Coll.) Response strength as a function of drive level and pre- and postshift incentive magnitude. *J. exp. Psychol.*, 1962, 63(5), 468-471.—"In an attempt to ascertain (a) the function describing how D and K combine and (b) the effect of incentive magnitude shifts as a function of D, speed measures were obtained on four groups of rats involving two drive levels and two reward levels. After 90 trials on the original reward level, the reward of each group was shifted to that of the other for 25 additional trials. Statistical analyses revealed a significant interaction ($P = .05$) between D and K, indicative, not of a multiplicative function but of a negatively accelerated one such as exponential addition." Other findings are discussed in terms of the Crespi effect and a hypothetical anticipatory emotional response mechanism.—*J. Arbit.*

4646. Gonzales, R. C., Eskin, Rochelle M., & Bitterman, M. E. (Bryn Mawr Coll.) Extinction in the fish after partial and consistent reinforcement with number of reinforcements equated. *J. comp. physiol. Psychol.*, 1962, 55(3), 381-386.—African mouthbreeders received food reward for striking a target. In 1 experiment, fixed interval, variable interval, and consistent schedules of reinforcement were used; in another experiment, with discrete trials, reward ratios of 100%, 50%, and decreasing lower percentage were compared. Within both studies, the number of reinforcements was equated across groups. Unlike studies in which number of trials are equated, the partial reinforcement groups here showed higher resistance to extinction. It is suggested that "the fish is much more influenced than the rat by sheer number of reinforcements."—*W. A. Wilson, Jr.*

4647. Hendry, Derek P. (Durham Coll., England) **The effect of correlated amount of reward on performance on a fixed-schedule of reinforcement.** *J. comp. physiol. Psychol.*, 1962, 55(3), 387-391.—The amount of reward rats received was determined by their terminal interresponse time on a fixed-interval schedule. Ss learned to wait longer before the final response if this produced a larger reward, or to produce a shorter final interresponse time when that earned more reward. The changes in performance "support the view of Ferster and Skinner that the important contingencies of reinforcement are those operating at the moment of reinforcement."—*W. A. Wilson, Jr.*

4648. Hill, Winfred F., Cotton, John W., & Clayton, Keith N. (Northwestern U.) **Effect of reward magnitude, percentage of reinforcement, and training method on acquisition and reversal in a T maze.** *J. exp. Psychol.*, 1962, 64(1), 81-86.—Using rats in a T maze, "acquisition of the correct response was faster for large reward, 100% reinforcement, and forced noncorrection method, with no interactions. Reversal was faster for large reversal reward, faster after 100% reinforcement with correction method than any other combination of percentage with method, and slower after 50% reinforcement with large acquisition reward than any other combination of percentage with acquisition magnitude. Acquisition by the correction method gave faster running during both acquisition and reversal. Running was faster with larger current reward both during acquisition by correction method and during reversal."—*J. Arbit.*

4649. Hulse, Stewart H. (Johns Hopkins U.) **Discrimination of the reward in learning with partial and continuous reinforcement.** *J. exp. Psychol.*, 1962, 64(3), 227-233.—"Fifty albino rats were given 60 training trials in a 15-ft. U shaped alley. They were reinforced with 600 licks of water from a drinking tube on 33%, 66%, or 100% of the trials. Half the partial Ss could lick on the dry drinking tube on nonreinforced trials; for the other half, the tube was blocked such that the Ss could neither see it nor lick it. . . . The data suggest that partial reinforcement produces a very powerful discrimination of reward stimuli in the goal box. This process may be a factor in experiments which have shown that stimulus variables correlated with the reward, such as its sweetness or size, have different effects if they are used with partial as compared with continuous reinforcement."—*J. Arbit.*

4650. Ison, James R. (U. Rochester) **Experimental extinction as a function of number of reinforcements.** *J. exp. Psychol.*, 1962, 64(3), 314-317.—"Six groups of rats received either 10, 20, 40, 60, 80, or 100 reward trials [N_g] followed by 80 non-rewarded extinction trials at five trials per day with an intertrial interval of 18 min. The mean numbers of trials to extinction criteria of 40 and 120 sec. were negatively related to N_g and running speed to early extinction was nonmonotonically related to N_g . These data were contrasted with those previously obtained in the Skinner box. In addition, the mean number of trials on which avoidance responses occurred in extinction was positively related to N_g and the mean number of trials to the first avoidance response was negatively related to N_g . These latter relationships

are consistent with interference theories of extinction which stress the acquisition of competing avoidance responses."—*J. Arbit.*

4651. James, W. T. (U. Georgia) **An apparatus for the investigation of an operant response for sham feeding versus direct stomach feeding in the dog.** *Psychol. Rep.*, 1962, 11(1), 67-70.—This report describes an apparatus for the automatic injection of food into the stomach of the dog via an esophageal fistula as the animal presses a lever in a large operant box. The tank consists essentially of two chambers separated by appropriate valves. One chamber holds 1500 cc. gruel, while the back chamber is used to place air pressure on the valves which force the gruel through a plastic tube to the dog's stomach. A solenoid cut-off valve controls the amount of food delivered to the animal as a lever is depressed. In some tests the plastic tube delivered food directly to a pan before the animal, in order to contrast the two methods of food intake."—*B. J. House.*

4652. Knarr, Frederick A., & Collier, George. (U. Missouri) **Taste and consummatory activity in amount and gradient of reinforcement functions.** *J. exp. Psychol.*, 1962, 63(6), 579-588.—"In two runway experiments the effects of jointly manipulating concentration of sucrose, volume per reinforcement, and amount of consummatory activity on starting and running speed were examined. Rate of acquisition and the terminal level of responding proved to be functions mainly of concentration and number of pellets offered. The relatively minor effects of tube size occurred in the early training trials and those of volume per reinforcement in the terminal trials. It was concluded that variations in consummatory activity are neither necessary nor even sufficient conditions for producing variations in acquisition and performance. The implications of the fact that the terminal gradient of running was a negative one whose steepness was a function of concentration and amount were explored."—*J. Arbit.*

4653. Lynn, Elizabeth, & Leary, R. W. (U. Oregon) **Reinforcement procedure and cue location in pattern discriminations of monkeys.** *Psychol. Rep.*, 1962, 11(1), 83-90.—6 rhesus monkeys were presented with a series of 6-trial pattern problems. The following significant findings are reported: (a) More errors were made when form alone was relevant than color alone. (b) More errors were made with patterns of 1 square in. than 3 square in., but placement of the small patterns on the upper, middle, or lower part of the stimulus card produced no effect. (c) Presentation of a single negative stimulus on the first trial produced better performance than a single positive stimulus or 2 positive or 2 negative stimuli. (d) Injection with promazine on $\frac{1}{2}$ the problems had no effect on learning.—*B. J. House.*

4654. Mintz, Donald E. (Princeton U.) **Force of response during ratio reinforcement.** *Science*, 1962, 138(Whole No. 3539), 516-517.—Sharp decline in response force after reinforcement and progressive force elevation over a sequence of unreinforced responses were observed for Ss in a fixed ratio lever-press situation. It is suggested that these systematic variations in force level may provide, through feed-

back, discriminable cues for behavioral regulation.—*Journal abstract.*

4655. Mountjoy, Paul T., Day, Edwin A., & Rogers, Curtis C. (Denison U.) Response decrement under continuous reinforcement as a function of effort. *J. scient. Lab. Denison U.*, 1960, 45, 124-128.—Rats were given massed trials in either a 4-ft. or a 13-ft. runway, with continuous water reinforcement. In Experiment 1, 12 Ss were given 15 trials every 12 hr. for 17 days and retested after a 2-week recovery period. Ss of both groups ran faster upon retesting. In Experiment 2, 12 Ss were given 15 trials every 24 hr. for 56 days and retested after a 15-day recovery period. There was no change in speed of running upon retesting. The results were discussed in relation to other studies, and it was suggested that some mechanism other than conditioned inhibition was operating.—*Author abstract.*

4656. Roberts, Carl L. (Colorado Coll.) Stimulus and stimulus-change factors governing the free operant rats. *J. comp. physiol. Psychol.*, 1962, 55(3), 375-380.—Illumination of the cage was used as reinforcement for lever pressing in rats. Although response rate usually decreases within session in such a situation, repeated presentations of the illumination not produced by the Ss led to a recovery in subsequent lever pressing, a recovery equal to that of Ss given no reinforcements in the interval. This is thought to rule out explanations of response decrement in terms of stimulus satiation, in favor of a reactive-inhibition formulation.—*W. A. Wilson, Jr.*

4657. Sandler, Jack. (VA Hosp., Coral Gables, Fla.) Reinforcement combinations and masochistic behavior: A preliminary report. *Psychol. Rep.*, 1962, 11(1), 110.—Bar-press response rate for liquid reinforcement was not appreciably reduced by the introduction of concurrent shock schedule (in 4 monkeys). Responding during an extinction phase with shocks but no liquid appeared to be increased by such training.—*B. J. House.*

4658. Schoonard, James, & Lawrence, Douglas H. (Stanford U.) Resistance to extinction as a function of the number of delay of reward trials. *Psychol. Rep.*, 1962, 11(1), 275-278.—"Three groups of animals [40 rats] were trained for 68 trials in a delay of reward situation. One group was delayed for 20 sec. on each of these trials before being allowed to enter the goal box for a reward pellet. The second group had 48 trials without delay followed by a block of 20 delay trials. The third group had all 68 trials without delay. It was found that resistance to extinction tended to be a linear, increasing function of the number of delay trials."—*B. J. House.*

4659. Snyder, Harry L. (Johns Hopkins U.) Saccharine concentration and deprivation as determinants of instrumental and consummatory response strengths. *J. exp. Psychol.*, 1962, 63(6), 610-615.—3 levels of saccharine concentration (C) and 4 levels of food and water deprivation (D) were combined factorially to produce 12 groups of 10 male albino rats each. Running speed in a straight alley increased with both D and C but the interaction was not significant. This finding supports Spence's additive relationship as opposed to Hull's multiplicative relationship of drive and K. The monotonic relationship between speed and rate of licking for

the C variable supports a consummatory response theory of reinforcement; the negative relationship between these response measures for the D variable shows the limitations of such a theory.—*J. Arbit.*

4660. Solomon, Stuart. (U. Connecticut) Effects of variations in rearing, drive level, and training procedure on performance in probability learning tasks. *Psychol. Rep.*, 1962, 10, 679-689.—2 groups of rats (N=46) were reared under either a C environment (stable, with food and water always available) or a V environment (random variability in availability of food, water, sex, etc.). "A factorial design was used to further subdivide the C and V treatments into groups tested under early (45) days and late (90 days) duration of rearing, high and low drive levels, and correction and noncorrection training procedure. Each S was run . . . on a . . . T maze with a 75%-25% schedule of partial reinforcement." Both drive level and rearing procedures produced significant main effects. Asymptotic response probability of the low drive groups tended to match reinforcement schedule, while high drive increased responding to the 75% side. C-environment rats had higher asymptotic responding to the 75% side than C-environment rats even after a covariance analysis which removed the effect of drive level. Results were discussed in relation to Goodnow's and Flood's hypotheses.—*B. J. House.*

4661. Theios, John. (Stanford U.) The partial reinforcement effect sustained through blocks of continuous reinforcement. *J. exp. Psychol.*, 1962, 64(1), 1-6.—Rats were run in a runway on partial reinforcement. Then different numbers of continuously reinforced trials were interpolated between the partial reinforcement condition and extinction. The results question the adequacy of the discrimination hypothesis that the partial reinforcement extinction effect results from difficulty in discriminating the transition from training to extinction.—*J. Arbit.*

4662. Wagner, A. R., & Miller, N. (Yale U.) Choice behavior and resistance to extinction. *Psychol. Rec.*, 1962, 12, 105-108.—The basis for this study rests on a suggested general relationship from the literature between choice and extinction behavior, namely, that if S prefers one of 2 reinforcing goal events in a simple choice situation, that particular event would produce less resistance to extinction than the nonpreferred goal. The present study dealt with the relationship in partial reinforcement with large rewards vs. small rewards. Data are contrary to the stated hypothesis. Results are interpreted as being consistent with a theoretical position which stresses, "the relative independence of the incentive value of a goal event in the degree to which it encourages learning to approach in the presence of non-reinforcement cues."—*R. J. Seidel.*

Motivation & Learning

4663. Batsuro, E. G., & Zakher, YU. Y. (Inst. Evolutionary Physiology, Acad. Sciences, USSR) Refleks na otnoshenie velichin spetsificheskikh (pischevykh) usloviykh razdrashiteley u sobak. [Response to the relation of size of specified conditioned (food) stimuli in dogs.] *Dokl. Akad. Nauk SSSR*, 1962, 144(1), 234-237.—An (instrumental) conditioned reflex was elaborated in 3 dogs with the size of a food morsel acting as the discriminative

stimulus. The S was given either a 1.5 gram piece of meat or a 3 gram piece. If the dog received the 1.5 gram piece he could receive another morsel by going to the opposite end of the experimental room. No additional reinforcement followed the 3 gram piece. After training on this discrimination, various tests of generalization were introduced. Generalization tests to another type of food were positive for such things as sausage for one of the dogs but not for cheese or honey cake. Generalization to larger pieces of meat, 6 or 9 grams, was positive but such tests caused a breakdown of discrimination of the original 3 gram size.—*H. Pick.*

4664. **Berlyne, D. E.** (U. Toronto) **Note on food deprivation and extrinsic exploratory responses.** *Psychol. Rep.*, 1962, 11(1), 162.—A finding by Wehling and Prokasy (see 37: 2976) is interpreted as support for the theory that extrinsic exploratory responses are reinforced by reduction of conflict, as distinguished from reduction of uncertainty.—*B. J. House.*

4665. **Howard, Thomas C., & Young, Francis A.** (U. Tulsa) **Conditioned hunger and secondary rewards in monkeys.** *J. comp. physiol. Psychol.*, 1962, 55(3), 392-397.—3 groups of monkeys were exposed to a flashing light for $\frac{1}{2}$ hr. a day for 47 days. 1 group received this CS before feeding, 1 group during feeding, 1 group after feeding. Subsequent testing under satiation displayed no group differences attributable to the CS on either a previously learned food-vendor response or the learning of a new response to obtain washers which could be used in the food vendor. It is concluded that there is no evidence for the conditioning of the food drive.—*W. A. Wilson, Jr.*

4666. **Marx, Melvin H., & Pieper, W. A.** (U. Missouri) **Acquisition of instrumental response as a function of incentive contrast.** *Psychol. Rep.*, 1962, 10, 635-638.—A new type of incentive-shift procedure was used in which "all experimental Ss were fed the larger incentive (64% sucrose in water) directly on one day, and were then allowed to barpress for either 32% sucrose (Group 64/32) or 8% sucrose (Group 64/8) on the following day. Control groups were given only 32% sucrose (Group 32/32) or 8% sucrose (Group 8/8). A total of 32 female albino rats was divided into the four groups and given 12 daily 10-min. sessions [altering direct feeding with barpress sessions]. All barpresses were reinforced." The 8/8 group was superior to the 32/32 group. "The expected undershooting tended to occur in the 64/8 Ss, but an unexpected overshooting—a statistically reliable superiority in acquisition—occurred in the 64/32 Ss."—*B. J. House.*

4667. **Thomas David R.** (Duke U.) **The effects of drive and discrimination training on stimulus generalization.** *J. exp. Psychol.*, 1962, 64(1), 24-28.—Drive level had a beneficial effect upon stimulus generalization in the pigeon. Discrimination produced a steepening of the postdiscrimination gradient, a lowering of the gradient in the region of S—, and a shift of the central tendency from the region of S+ in the direction away from S—, the amount of shift varying inversely with the (S+, S—) difference. This occurs for all 3 levels of drive. Generalization gradients during the course of discrimination training reveal that the mean of the gradient shifts in a nega-

tively accelerated manner as a function of the amount of discrimination training.—*J. Arbit.*

COMPLEX PROCESSES

4668. **Wenner, Adrian M.** (U. California, Santa Barbara) **Communication with queen honey bees by substrate sound.** *Science*, 1962, 138(Whole No. 3538), 446-447.—A caged queen honey bee, installed in observation hive which already contained a virgin queen, piped in response to artificial piping which was played to it through the substrate. The experiments which followed this observation provide the first direct quantitative evidence that sound, at least in the range of 600-2000 cycles per second, is perceived by honey bees and that information is transmitted through sound from one bee to another.—*Journal abstract.*

SOCIAL BEHAVIOR

4669. **Clark, Lincoln D.** (Coll. Medicine U. Utah) **A comparative view of aggressive behavior.** *Amer. J. Psychiat.*, 1962, 119(4), 336-341.—*Onychomys leucogaster*, a rodent found near Salt Lake City, was studied in the laboratory for its aggressive behavior. While believed to be "in part genetically determined," aggression was found to be completely suppressed or reinforced to various degrees and to a variety of stimuli.—*N. H. Pronko.*

4670. **Keenleyside, Miles H. A., & Yamamoto, Fred T.** (Fisheries Research Board, St. Andrews, New Brunswick) **Territorial behavior of juvenile Atlantic salmon (*Salmo salar* L.).** *Behaviour, Leiden*, 1962, 19(1-2), 139-169.—"The territorial behavior of young Atlantic salmon is described from observations made in the field and the laboratory. Six agonistic activities occur during the defence of territories; these are charging, nipping, chasing, frontal display, lateral display, and fleeing. . . . The causation of the six agonistic acts is discussed.—*A. Barclay.*

4671. **Rowley, Ian.** (Wildlife Survey, Canberra, Australia) **"Rodent-run" distraction display by a passerine, the superb blue wren *Malurus cyaneus* (L.).** *Behaviour, Leiden*, 1962, 19(1-2), 170-175.—"Distraction display as performed by the Superb Blue Wren, *Malurus cyaneus*, takes the form of a true 'rodent-run' and is stimulated by the alarm call of the young; this display is described and illustrated. Both male and female perform, although the coloring of only the latter resembles that of a small mammal. The display in other, related, species is discussed, and it is postulated that it may be a generic characteristic developed before sexual dimorphism and speciation were manifest."—*A. Barclay.*

4672. **Schastný, A. I., & Firsov, L. A.** (Acad. Sciences USSR) **Fiziologicheskii analiz sredstv vzaimodeistviya u shimpanze v gruppom eksperimente.** [Physiological analysis of the means of interaction with chimps in a group experiment.] *Dokl. Akad. Nauk SSSR*, 1961, 141(5), 1264-1266.—Social interaction between 2 chimps was conditioned by using the response of one chimp as the CS for a response of the other chimp. One chimp (Roza) had a vigorous appetite. She was conditioned to put a token into a receptacle in order to receive food. The other chimp (Lada) was very curious. She was conditioned to put a token into a receptacle to receive a

toy. The conditioned interaction consisted of the following chain of events: when Lada was given a hexagonal token she dropped it into the receptacle. This was the signal for Roza to place a toy in the receptacle which in turn served as a signal for Lada to place a piece of food in the receptacle. Then the food was delivered to Roza and the toy to Lada. The delayed nature of reinforcement necessitated a large number of shaping trials. Experimental operations such as giving Roza food before the experiment or depriving Lada disrupted this chain.—*H. Pick.*

4673. Stamm, Roger A. (Zoological Inst., Basil) *Aspekte des Paarverhaltens von Agapornis personata Reichenow.* [Aspects of the pair behavior of the East African parrot.] *Behaviour, Leiden*, 1962, 19(1-2), 1-56.—"The east African parrot *Agapornis personata* Reichenow lives in groups of 20 to 30 individuals. The paper describes some aspects of its pair behavior, while later papers will deal with the group dynamics of the species."—*A. Barclay.*

4674. Stokes, Allen W. (Utah State U.) *Agonistic behavior among blue tits at a winter feeding station.* *Behaviour, Leiden*, 1962, 19(1-2), 118-138.—A behavioral analysis of encounters of the blue tit with one another, with descriptive accounts of the separate elements of attack, escape, or staying behavior. Attack and escape behavior decreased in frequency from January through March, perhaps as a result of habituation to the feeding station situation. The behavior elements observed seemed to have strong signal values, with interactions being elicited as a function of the perceived signal; i.e., attack behavior in one bird elicits escape behavior in another. However, probabilities of one specific behavior following a particular combination of other behaviors changed with season and rendered prediction of behavior difficult.—*A. Barclay.*

ABNORMAL BEHAVIOR

4675. Mering, T. A. (Brain Inst., USSR Acad. Medical Sciences) *K voprosu o nevrozakh, poluchennykh v usloviakh dvigatel'noi metodiki.* [Neuroses obtained by means of motor methods.] *Zh. vyssh. nervn. Deiatel.*, 1962, 12(3), 481-488.—Several positive and negative CRs to a variety of stimuli were established in 23 dogs both before and after a brain operation in the area of the auditory analyzer. Neurotic deviations could not be produced in Ss either by means of collision of the excitatory and inhibitory processes or by means of overstraining the inhibitory process. For dogs with a weakened nervous system, resulting from brain operations, the extinction of the action of auditory stimuli is a difficult task which is often accompanied by various neurotic deviations including epileptic seizures and the appearance of ulcers.—*A. Cuk.*

4676. Sen, N. N. *An objective study of experimental neurosis: III. After effects of experimental stress.* *Psychol. Stud. Mysore*, 1962, 7(2), 38-42.—No generalized and persistent aftereffects of the experimental stress were observed in rats on a carefully selected battery of tests. Among the 15 pretest measures, only 2, hiding and general ability, appeared to be associated with types of reaction to the experimental stress.—*U. Pareek.*

DEVELOPMENTAL PSYCHOLOGY

4677. Baldwin, A. L. (Cornell) *Indications and contraindications for the longitudinal strategy.* In G. Nielson (Ed.), *Proceedings of the XIV International Congress of Applied Psychology Vol. 3. Child and education* (see 37: 4118). Pp. 42-49.—Traditional forms of longitudinal studies have not produced impressive results. 3 ways of dealing with the unanticipated environmental stresses affecting the study are discussed and a strategy suggested.—*B. T. Jensen.*

4678. Bronfenbrenner, Urie. (Cornell U.) *The role of age, sex, class, and culture in studies of moral development.* *Relig. Educ.*, 1962, 57(4, Res. Suppl.), 3-17.—The acquisition of values and character as a function of age, sex, class, and culture is discussed.—*S. A. Walters.*

4679. Frank, Lawrence K. (25 Clark St., Belmont, Mass.) *The beginnings of child development and family life education in the twentieth century.* *Merrill-Palmer Quart.*, 1962, 8(4), 207-227.—In this Edna Noble White memorial lecture are traced the major contributions of institutions and investigators to the fields of child development and family life education.—*E. L. Robinson.*

INFANCY

4680. Apgar, V., & James, L. S. (Presbyterian Hosp., N. Y.) *Further observations on the newborn scoring system.* *Amer. J. Dis. Children*, 1962, 104(4), 419-428.—A report of recent clinical and research applications of the Apgar score including a discussion of its use for predicting later mental development.—*A. B. Warren.*

4681. Bartoshuk, A. K. (Brown U.) *Human neonatal cardiac acceleration to sound: Habituation and dishabituation.* *Percept. mot. Skills*, 1962, 15(1), 15-27.—Human neonatal cardiac acceleration to sound was repeatedly elicited in order to study the response decrement across trials. It was suggested that fatigue cannot account for the response decrement across trials. Instead, the data favor interpreting the response decrement as selective habituation which probably represents a form of discrimination learning.—*W. H. Guertin.*

4682. Caldwell, Bettye M. (State U. New York, Syracuse) *The usefulness of the critical period hypothesis in the study of filiative behavior.* *Merrill-Palmer Quart.*, 1962, 8(4), 229-242.—The critical period hypothesis has served behavior theory as an orienting framework and has proved useful in the study of human infants. Certain refinements are discussed. (39 ref.)—*E. L. Robinson.*

4683. Dargassies, S. Sainte-Anne. (Paris, France) *The first smile.* *Develpm. Med. child Neurol.*, 1962, 4(5), 531-533.—The developmental connotation of the time of appearance of the 1st smile is discussed.—*T. E. Newland.*

4684. Holden, Raymond H., & Solomons, Gerald. (Child Development Study, Providence, R. I.) *Relation between pediatric, psychological, and neurological examinations during the first year of life.* *Child Develpm.*, 1962, 33(3), 719-727.—"This study correlated the results obtained between a 4-month pediatric examination, an 8-month psychological ex-

amination, and a 12-month neurological examination on 100 infants. . . . Each child was classified independently at each age level as 'Normal,' 'Suspicious,' or 'Abnormal' on the basis of mutually agreed on criteria. Correlations between examinations ($r = .61, .60, .53$) were all significant beyond the .01 level. Mental and motor scores from the 8-month examination accounted for up to 71 per cent of the variance at the 8-month examination and correlated highly with the finding of neurological deficit at 12 months of age ($r = .66$ and $.77$).—*W. J. Meyer.*

4685. Leuba, Clarence. (Antioch Coll.) **Relation of stimulation intensities to learning and development.** *Psychol. Rep.*, 1962, 11(1), 55-56.—To account for "the development of specific behaviors out of the random general behavior of the human infant" the principle is proposed and discussed that "those actions are strengthened and repeated which are accompanied or followed by over-all stimulation within a middle band of optimal intensities." The theory is related to definitions of reward and punishment, pleasantness and unpleasantness, and to the distinction between instrumental and classical conditioning.—*B. J. House.*

4686. Rossier, A. (Paris, France) **The future of the premature infant.** *Develpm. Med. child Neurol.*, 1962, 4(5), 483-487.—On the basis of a study of 156, of a potential 175, premature infants, examined between the ages of 4 and 7 years, "80% were normal in motor development and 78% were normal in mental development." With the improvement in dealing with retrolental fibroplasia, these figures should be improved, although there still remains the problem of the cerebral palsies.—*T. E. Newland.*

4687. Tonkova-Iampol'skaia, P. V. (Lvov, USSR) **K voprosu izucheniia fiziologicheskikh mekhanizmov rechi.** [Study of physiological mechanisms of speech.] *Zh. vyssh. nervn. Deiatel.*, 1962, 12(1), 82-87.—An electro-acoustic analysis was made of cries of 18 neonates (age 1-6 days) to determine the spectral composition of sounds and the main physical parameters of the infants' sound intonation. Conclusion was drawn that a neonate's cry has no cortical control as yet and that the communicative aspect of the cry is not yet of the proper speech nature. The cry is of auto-oscillating nature without elements of cortical control.—*A. Cuk.*

CHILDHOOD

4688. Alon, Shmuel. **Hayeled, seviavto vehinukho.** [The child, his education and environment.] Tel Aviv, Israel: Yavneh, 1961. 254 p.—The 3 positive as well as negative elements shaping the child's personality have to be analyzed: the family, the school, and the child's inborn features. This volume "deals with the child's organisms and its inner powers stimulating his mental and biological growth." A textbook intended for "students of teacher training colleges, teachers, parents, physicians . . . based on 100,000 observations, questionnaires, and various investigations of children in Israel from the early childhood until the adolescence." All of the topics discussed are education-oriented.—*H. Ormian.*

4689. Braun-Lamesch, Marie-Medeleine. **Le rôle du contexte dans la compréhension du lan-**

gage chez l'enfant. [The role of context in the child's comprehension of language.] *Psychol. Franc.*, 1962, 7(3), 180-189.—The purpose was to study as a function of age the change in the child's ability to utilize context in order to obtain meaning. 120 children aged 5-9 years were orally presented with 6 series of 4 phrases each. In each phrase, an artificial word common to the series replaced some other word. S's task was to determine the meaning of the artificial word. Results indicated an increase with age in correct identifications. Some words were more easily identified at all ages.—*C. J. Adkins.*

4690. Crandall, Vaughn J., Katkovsky, Walter, & Preston, Anne. (Fels Research Inst., Yellow Springs, O.) **Motivational and ability determinants of young children's intellectual achievement behaviors.** *Child Develpm.*, 1962, 33(3), 643-661.—Early-grade-school children's motivations and attitudes as related to their behavior in diverse intellectual achievement situations (time spent in intellectual activities, intensity of achievement striving, intelligence test performances, and reading and arithmetic achievement test performances) were assessed. There were few sex differences. Measures of n-ach and general manifest anxiety were unrelated to achievement, but several theory-dictated predictor variables (importance of intellectual competence, expectations of intellectual success) were useful predictors.—*W. J. Meyer.*

4691. Geber, M. (Centre de Santé Publique de la Region de Soissons) **Longitudinal study and psycho-motor development among Baganda children.** In G. Nielson (Ed.), *Proceedings of the XIV International Congress of Applied Psychology. Vol. 3. Child and education.* (see 37: 4118). Pp. 50-60.—Several groups of children, some suffering from a type of malnutrition, have been studied. Environmental and developmental changes are described and compared with events in Europeanized families; e.g., apparent retardation in the Baganda at weaning compared to earlier precocity. (16 ref.)—*B. T. Jenson.*

4692. Jensen, Arthur R. (U. California, Berkeley) **Reinforcement psychology and individual differences.** *Calif. J. educ. Res.*, 1962, 13(4), 174-178.—The importance of studying the interaction of "content variables" (verbal, numerical, spatial, perceptual-motor, conceptual, etc.) with "conditions of learning" (distribution of practice, response pacing, intratask similarity, schedule reinforcement) in children of widely differing intelligence by means of a "multiple stimulus-response learning apparatus" is developed. The possibility of factoring out of the results certain possible contributing factors (habit strength, inhibition, interference, stimulus, and response generalization, behavior oscillation, and individual differences per se) is suggested.—*T. E. Newland.*

4693. Metraux, Rhoda. (American Museum Natural History) **Children's drawings: Satellites and space.** *J. soc. Issues*, 1961, 27(2), 36-42.—Analysis of children's drawings executed after the launching of the Sputniks indicated that there were 3 salient features: (a) the drawings of the satellites had some relationship to reality and were not rooted entirely in fantasy, even though the children had had relatively little direct exposure to information about

satellites at that time; (b) girls drawings were static rather than dynamic; and (c) the drawings were multi-dimensional, i.e., the satellites were drawn in relation to the earth, other planets, the sun, or other aspects of the solar system as well as in relation to the viewer.—*A. Barclay.*

4694. Otterstädt, H. *Untersuchungen über den Spielraum von Vorortkindern einer mittleren Stadt.* [Investigations on the play-space of suburban children close to a medium size town.] *Psychol. Rdsch.*, 1962, 13(4), 275-287.—Children who had access to rural play grounds and to city play grounds preferred without exception the natural play grounds. Favorite games between 9 and 14 are motion games played in groups not seldom covering an area of several kilometers. Girls generally do not use as much play ground space as boys.—*W. J. Koppitz.*

4695. Santos, John F., & Garvin, E. A. (Menninger Found.) *A further examination of the Schafer-Murphy effect.* *Amer. J. Psychol.*, 1962, 75(2), 259-264.—Since the original report of the effect (autism in visual figure-ground relationships), other studies have both confirmed and negated the findings. The present study employs isolated as well as interacting rewards and punishments. Ss were 26 boys and 22 girls, aged 10-13. Apparatus included a tachistoscope, projector, and 35-mm. slides picturing single faces or their ambiguous combinations. Over-all results suggest the absence of autistic effects. It is concluded that the Schafer-Murphy effect may be obtained only under highly specific conditions.—*R. D. Nance.*

4696. Rubin, B. M., Shantz, D. W., & Smock, C. D. (Purdue U.) *Perceptual constriction as a function of incentive motivation.* *Percept. mot. Skills*, 1962, 15(1), 90.—Children were shown rotated forms briefly in 3 concentric rings of distance from central focus. Their positioning of the forms on a reproduction board was significantly better on central tasks when incentive motivation was introduced; peripheral performance showed a decrement. Results would support the "narrowed attention" hypothesis governing perception under increased motivation.—*W. H. Guertin.*

4697. Tausch, Anne-Marie. (Brederbacher Str., Kettwig/Ruhr, Germany) *Verschiedene nicht-autokratische Verhaltensformen in ihrer Auswirkung auf Kinder in Konfliktsituationen.* [Various non-autocratic modes of behavior and their effect on children in conflict situations.] *Z. exp. angew. Psychol.*, 1962, 9(2), 339-351.—72 pupils between 11 and 14 were asked to judge the effectiveness of 4 teacher reactions to different pictured disturbances in class. The children considered 2 of the methods equally successful: (a) staring at the guilty ones without saying a word and (b) expression of understanding with an impersonal appeal for proper behavior. The other 2 methods: (c) explanation of the situation and (d) mere expression of understanding were not considered effective. Expert teachers evaluated the situations quite similarly, while student ~~selected~~ parents, though recognizing the effectiveness, only the staring method, did not see the effect associated with the understanding plus correction mental stress.—*Koppitz.*

4698. Zazzo, René. *Conduites et conscience: I. Psychologie de l'enfant et méthode génétique.* [Behavior and consciousness: I. Child psychology and genetic method.] Neuchâtel, Switzerland: Delachaux & Niestlé, 1962. 316 p.—In this volume the author collected some of his article which he previously published in various journals. A survey of the development of child psychology in the 20th century and an appraisal of Binet's work are followed by articles on: (a) the child's development during the 1st 3 years; (b) the psychology of the French child in comparison with the American child; (c) motor behavior with emphasis on lefthandedness, for which permissiveness is recommended; (d) the genesis of self-awareness and the influence of the attitudes of the parents and the cultural environment; and (e) the problem of set developmental stages with special reference to the theories of Tanner and Piaget: rigidity should be avoided. For the investigation of the differential psychology of the sexes at the preschool level, the author invented the "bestiary" test in which the child is asked with which animals he would identify himself. He is also questioned about his preferences for his own or the other sex and the developmental stages of life, i.e., his actual age, infancy, or adulthood.—*M. Haas.*

4699. Zinchenko, V. P., Ruzskaia, A. G., & Tarakanov, V. V. (RSFSR Acad. Pedagogical Sciences) *Sravnitel'nyi analiz osiaziiani i zreniia. Soobshchenie IX. Osobennosti dvizhenii glaza u detei doskol'nogo vozrasta v protsesse fiksatsii.* [Comparative analysis of touch and vision. Communication IX. Characteristics of eye movements in preschool children during fixation.] *Dokl. Akad. Pedag. Nauk RSFSR*, 1961, No. 6, 81-84.—12 children (aged 3-7) had their eye movements photographed while they were fixating a black point on a white screen. The main findings were: (a) all Ss showed a great amount of eye movements; and (b) a reduction in eye movements and an increase in fixations took place only at the age of 6-7.—*A. Cuk.*

Learning

4700. Biriukov, D. A., Shliafer, T. P., & Iakovleva, M. I. (USSR Acad. Medical Sciences, Leningrad) *Uslovnoreflektornye izmeneniia dykhanii na fone sonnogo tormozheniia.* [Respiratory changes in the CR on the background of sleep inhibition.] *Zh. vyssh. nervn. Deiatel.*, 1962, 12(1), 22-29.—Respiratory and cardiac reflexes of 25 children (age 4 months to 4 years) and 17 kittens were studied under stimulation of sound, touch and smell. It was found that in very young children and kittens respiratory changes are easily conditioned during light sleep and do not substantially differ from those during wakefulness. In children over 1 year, the CR cannot be formed because of deeper sleep.—*A. Cuk.*

4701. Degtiar', E. N. (USSR Acad. Sciences) *Sravnitel'naia kharakteristika fiziologicheskikh uslovi pri vyrabotke stereotipa pervoi vtoroi signal'noi sistemakh.* [Comparative characteristics of physiological conditions during the formation of a stereotype in the first and second signal system.] *Zh. vyssh. nervn. Deiatel.*, 1962, 12(1), 63-68.—Blinking reflex to a combination of visual and auditory stimuli was established in 37 children (age from

1 year 8 months to 3 years, and from 6 to 7 years). It was found that children respond to all complications and simplifications of a formerly established stereotype as well as to a new stereotype. In the younger group of Ss no generalization was obtained during the elaboration of a stereotype of verbal stimuli. Generalization was possible with the older group of Ss.—*A. Cuk.*

4702. Guzhakovskii, A. A. (Central Research Inst. Physical Culture, Moscow, USSR) *Izmeneniia vysshei nervnoi deiatel'nosti vospitannikov nachal'nykh klassov shkoly-internata v techenie dnia i vliianie na nee aktivnogo otdykha v vide podvizhnykh igr i fizicheskikh uprazhnenii.* [Changes of higher nervous activity in boarding school pupils and effect of outdoors games and physical exercises.] *Zh. vyssh. nervn. Deiatel.*, 1962, 12 (3), 465-471.—Motor CRs to light were developed in 18 pupils of the 3rd grade. Conditioning took place 4 times a day, before and after classes, before and after homework. Results show that school work not only affects higher nervous activity during the day but it changes its nature during the whole week. Particularly deep changes in terms of transmarginal inhibition set in during the 2nd ½ of the week. When games were introduced, excitatory processes were strengthened. These games were particularly beneficial when introduced after classes and before dinner.—*A. Cuk.*

4703. Kass, Norman. (U. Minnesota) *Resistance to extinction as a function of age and schedules of reinforcement.* *J. exp. Psychol.*, 1962, 64(3), 249-252.—Using a simulated slot machine, 216 children at CA 4, 6, 8, and 11 received reinforcement on either 0, ¼, ½, ¾, or all of the trials of a 30-trial acquisition period. Extinction was continued until S wished to stop or until 370 extinction responses had been made. Decrease in extinction responses was found with increasing percentages of reinforcement. The fewest trials to extinction was at CA 4 and the most at CA 8. There was no interaction between CA and percent reinforcement.—*J. Arbit.*

4704. Klausmeier, Herbert J., & Check, John. (U. Wisconsin) *Retention and transfer in children of low, average, and high intelligence.* *J. educ. Res.*, 1962, 55(7), 319-322.—Groups of 29 problems were set up at 3 main levels of difficulty, one level for each IQ group of 20 boys and 20 girls in 5th grade. When children of low, average, and high intelligence receive learning tasks graded appropriately to their levels of achievement, they retain equally well to new situations of appropriate difficulty.—*F. Goldsmith.*

4705. Kol'tsova, M. M. (Pavlov Inst. Physiology, USSR Acad. Sciences) *Osobennosti formirovaniia sistem vremennykh svyazei vo vtoroi signal'noi sisteme.* [Characteristics of the formation of systems of temporal connections in the second signal system.] *Zh. vyssh. nervn. Deiatel.*, 1962, 12(3), 450-456.—Ss were 24 children (age 4-5) who were conditioned to react to different combinations of visual stimuli (lights and the word "light" were used). The purpose was to clarify the role of the verbal factor in the generalization of direct stimuli. Temporal connections can be of 2 types: (a) sensory when 2 stimuli are combined without any reinforcement

and (b) combinations of the CS and US. Results show that generalization of direct stimuli is possible only on the basis of systems of temporal connections of both types. This holds also for the verbal factor.—*A. Cuk.*

4706. Longstreth, Langdon E. (U. Southern California) *Incentive stimuli as determinants of instrumental response strength in children.* *J. comp. physiol. Psychol.*, 1962, 55(3), 398-401.—Preschool children were given trials in a 14-ft. runway situation; a red light and a blue light were each presented on ½ the trials, no reward was given. Then, candy was presented to the Ss in the presence of the red light, but not the blue. When again placed in the runway, Ss ran faster when the red light was on, "supporting either a motivational or associative interpretation of the role of reward expectations in the instrumental reward situation."—*W. A. Wilson, Jr.*

4707. Lovell, K., Kellett, V. L., & Moorhouse, E. (U. Leeds, England) *The growth of the concept of speed: A comparative study.* *J. child Psychol. Psychiat.*, 1962, 3(2), 101-110.—10 normal Ss at each age from 5 to 10 years were compared with 10 subnormal Ss from each age group of 10, 12, 14, and 15 years on 10 Piaget-type experiments assessing (a) intuition of speed, (b) relations of speeds in synchronous movements, (c) relative speeds, and (d) conservation of uniform speeds. The findings support Piaget's results of growth in understanding these concepts and indicate that few subnormal children have such understanding.—*J. M. Reisman.*

4708. Menchinskaya, N. A. (Acad. Pedagogical Science, Moscow, USSR) *Problem solving studies.* In G. Nielson (Ed.), *Proceedings of the XIV International Congress of Applied Psychology. Vol. 4. Clinical psychology* (see 37: 4119). Pp. 140-153.—Children in Grade 3 were required to solve arithmetic problems after having 1 of 2 kinds of training or none. In another experiment children were asked to distinguish geometrical figures. Results are discussed as illustrative of questions concerning problem solving.—*B. T. Jensen.*

4709. Palermo, David S. (U. Minnesota) *Mediated association in a paired-associate transfer task.* *J. exp. Psychol.*, 1962, 64(3), 234-238.—"An experiment was conducted to study facilitation and impairment of performance as a function of mediated associations in a modified A-B, A-C transfer paradigm. Children in Grades 3, 4, 5, and 6 were required to learn two lists of six paired associates composed of six stimuli and three responses. In List 2, the pairs were arranged so that learning could be facilitated by mediated associations or impaired by mediated associations. . . . The results indicated that the condition designed to produce facilitation through mediated associations led to superior performance when compared with the condition designed to produce impairment through mediated associations. Performance on the control pairs was superior, however, to that of both of the mediation conditions."—*J. Arbit.*

4710. Repina, T. A. (Inst. Psychology, RSFSR Acad. Pedagogical Sciences) *O nekotorykh metodikakh izucheniia zvukovysotnoi chuvstvitel'nosti u detei doskol'nogo vozrasta.* *Soobshchenie III. Opyt razrabotki metodiki, sposobstvuiushchei formirovaniu u detei differentsirovannogo zvukovysotnogo razlichia tembral'no okrashennykh tonov.*

[Some methods for analyzing sound-pitch sensitivity in preschool children. Communication III. A technique for developing in children a differentiated pitch discrimination of tones of different timbres.] *Dokl. Akad. Pedagog. Nauk RSFSR*, 1961, No. 6, 55-60.—40 children aged 3-7, whose DL has been previously determined, were subjected to training in discriminating tones of different timbres under game conditions (tones were emitted by 7 teddy-bears). When they were retested it was found that their DL was improved. The findings refute "Seashore's bourgeois theory" that pitch discrimination is based on inherited abilities and cannot be improved.—A. Cuk.

4711. Salzinger, Suzanne; Salzinger, Kurt; Portnoy, Stephanie; Eckman, Judith; Bacon, Pauline M., Deutsch, Martin, & Zubin, Joseph. (Biometrics Research, 722 W. 168 St., NYC) **Operant conditioning of continuous speech in young children.** *Child Developm.*, 1962, 33(3), 683-695.—"The spontaneous continuous speech of children ranging in age from 5 to 7 years was reinforced under various experimental conditions. The reinforcing apparatus consisted of a papier-mache clown's head, the nose of which was a red light bulb. . . . The occurrence of the reinforcing light was made contingent upon different aspects of the children's speech in each experiment. It was found that speech rate increased as a result of the administration of reinforcement and decreased or stabilized when reinforcement was withheld. Both the number of reinforcements delivered and the schedule appeared to produce differences in response strength."—W. J. Meyer.

4712. Weir, Morton W. (U. Illinois) **Effects of age and instructions on children's probability learning.** *Child Developm.*, 1962, 33(3), 729-735.—"A three choice probability task was employed in which one of the three choices was reinforced 50 per cent of the times it was chosen and the other two were never reinforced. Children at two age levels (5 to 7 years and 9 to 13 years) served as Ss. One third of the Ss at each age level were instructed that it was possible to be correct on every trial, one third were told that it was not possible to be correct on every trial, and one third were given neutral instructions. Results indicated that the younger Ss chose the reinforcing knob more often than did the older Ss, while the instructional conditions did not influence the number of choices of the reinforcing knob. Analysis of the number of pattern responses revealed an age \times instructions interaction."—W. J. Meyer.

Abilities

4713. Beilin, Harry, & Franklin, Irene C. (Brooklyn, N. Y.) **Logical operations in area and length measurement: Age and training effects.** *Child Developm.*, 1962, 33(3), 607-618.—Piaget, Inhelder, and Szeminska's characterization of the development of length and area measurement was tested with 1st and 3rd grade children. A deliberate attempt to influence measurement concept acquisition by instruction was also tested in a transfer of training experiment. It was found that length measurement is achieved prior to area measurement, contrary to the Piaget et al. description. For the 1st and 3rd graders the achievement of measurement is affected by the test itself, and 3rd graders are influenced further by instruction in measurement concepts. Piaget's de-

velopmental theory is given support by the evidence that no 1st grader achieves operational area measurement even with training and instruction.—*Author abstract.*

4714. Chandra, Rukmani Ram. (Government Teachers Coll., Ajmer, India) **A study in children's vocabulary.** *U. Rajasthan Stud. (Educ.)*, 1960, 4, 1-20.—Spoken vocabulary of children of 7+ and 8+ was surveyed through observation of 30 children. 65 words having 75-100 percentage of child frequency were listed. 3 other preference lists were prepared. The vocabulary contained 63% nouns, 2% pronouns, 20% verbs, and 9% adjectives. The vocabulary of a nationalized textbook was also analyzed, revealing 52% nouns, 3% pronouns, 13% adjectives, and 18% verbs. Various suggestions for improving textbooks are offered.—U. Pareek.

4715. Dockrell, W. B. (U. Alberta) **The relationship between socio-economic status, intelligence and attainment in some Scottish primary schools.** *Indian psychol. Bull.*, 1959, 4, 1-6.—A test of the hypothesis that the correlation between socio-economic status and intelligence can wholly or partly be explained by differences in acquired skills. The Ss were children completing primary school in a Scottish city in 1957. Scores on the Moray House English test provided an English Quotient (EQ); on an arithmetic test, an Arithmetic Quotient (AQ); and on an intelligence test, an Intelligence Quotient (IQ). The mean social ratings made in school provided an index of Socio-Economic Status (SES). In a factor analysis of the data, the 1st orthogonal rotation of the loadings showed the groupings of SES and EQ. A 2nd orthogonal rotation yielded a larger common factor and a separate grouping of the 3 tests (intelligence, English, and arithmetic). Partial correlation coefficients were computed as follows: SES and IQ = .49, $p = .01$; SES and EQ = .62, $p = .01$; SES and AQ = .52, $p = .01$; IQ and AQ = .82, $p = .01$; EQ and AQ = .90, $p = .01$; other partial correlations were not significant.—A. K. Ganguly.

4716. Elkind, David, & Scott, Lee. (U. California Los Angeles School Medicine) **Studies in perceptual development: I. The decentering of perception.** *Child Developm.*, 1962, 33(3), 619-630.—126 nursery and elementary school children were tested with a set of 7 ambiguous pictures. Results showed that success in perceiving ambiguous pictures increased significantly with age, with the articulation of the pictures, and with IQ. Controls for test-content familiarity, test attitude, order of presentation, and sex were included in the study. The results were discussed in relation to the developmental theory of Piaget and the satiation theory of Kohler and Wallach. It was concluded that the Piaget theory gave the most consistent and economical account of the obtained results.—*Author abstract.*

4717. Hindley, C. B. (U. London) **Social class influences on the development of ability in the first five years.** In G. Nielson (Ed.), *Proceedings of the XIV International Congress of Applied Psychology. Vol. 3. Child and education* (see 37: 4118). Pp. 29-41.—170 children in greater London are being studied. Data on 80 cases are presented. IQs in upper classes seem to rise, middle class to remain constant,

and lower classes to fall. In addition, sphincter control and absence of sibling are associated with rising curves.—*B. T. Jensen.*

4718. Katsui, A. (Shizuoka U.) [A developmental study on the perception of direction in two-dimensional space.] *Jap. J. Psychol.*, 1962, 33(2), 63-70.—This study analyzed the ability of children to perceive spatial direction by presenting Ss with a standard figure tachistoscopically and then presenting him with a set of comparison figures, varying in their spatial orientation, from which to choose the same figure as the standard figure. It was found that frequency of errors was highest in a diagonal, less in a horizontal, and least in a vertical direction. Errors of the mirror type, i.e., reversal of right and left were most frequent, with reversal errors next, and errors of 45° rotation least frequent. It was suggested that the high frequency of right-left reversals may indicate that concepts of right-left are not well established in the 3-8-year-old group.—*A. Barclay.*

4719. Lovell, K. (U. Leeds) **Jean Piaget's views on conservation of quantity.** *Indian psychol. Bull.*, 1959, 4, 16-19.—An investigation carried out on 326 children of 7-11 in a junior school of a town in northern England to verify 3 successive stages in the development of children's concept of quantity. The general conclusion is that the 3 stages indicated by Piaget are there, but it is suggested that Piaget is wrong in making the operation of reversibility and/or the multiplication of relations the decisive issues. Reversibility and a consideration of dimensions may produce conservation in some children but they do not in others—some children attain conservation on other grounds. It appears that conservation arises out of the interlocking of several schemata and that we must look for a group of operations, not just the 2 proposed by Piaget.—*A. K. Ganguly & K. Ray-Chowdury.*

4720. Sutherland, M. B. (Queen's U., Belfast, Ireland) **A note on pre-sleep imagining in 10-year-old children.** *J. child Psychol. Psychiat.*, 1962, 3(2), 111-114.—A questionnaire was administered to 123 girls and 111 boys. About ½ of both sexes claimed they sometimes made up stories for themselves before falling asleep. A positive relationship between presleep imagining and teachers' estimates of imaginativeness and ability in dramatization was found with girls but not with boys.—*J. M. Reisman.*

4721. Tsimmerman, A. N. (Inst. Evolutionary Physiology, USSR Acad. Sciences) **K kharakteristike oboniatelnogo analizatora u detei doshkol'nogo vozrasta.** [Characteristics of the olfactory analyzer in preschool children.] *Zh. vyssh. nervn. Deiatel.*, 1962, 12(2), 236-243.—Positive and negative CR to odors (anise, lemon, rosewood, pine tree) were established in children (age 4-7) using the method and the apparatus devised by Ivanov-Smolenskii. The first CR was hard to form but the elaboration of the following CR, both positive and negative, was easy. Although the olfactory analyzer is already fully developed at this age, the difficulty of elaborating the first CR is due to the fact that in Ss of this age connection between olfactory stimuli and motor response is uncommon and unusual.—*A. Cuk.*

4722. Curpillot, Eliane. **Détails caractéristiques et reconnaissance de formes familiaires.** [Characteristic details and recognition of familiar forms.]

Psychol. Franc., 1962, 7(2), 147-155.—A genetic study of the elemental aspects of perceptual syncretism was made on 75 children aged 4-11 years, using altered drawings of rabbits and sheep. The Ss were instructed to classify each drawing. The results indicated an increasing differentiation with age and a greater importance for some details than for others.—*C. J. Adkins.*

4723. Włodarski, Z. **Niektóre właściwości pamięci bezpośredniej i odroczonej u dzieci.** [Certain properties of immediate and delayed recall in children.] *Psychol. Wych.*, 1962, 5(1), 32-41.—The span of direct memory for school age children increased from 4 to 7 words. Nouns were reproduced easier than verbs and adjectives. The recognition of particular traits or activities of persons was difficult for preschool children. The ability to differentiate certain aspects of geometric figures was weak for most children.—*H. Kaczowski.*

Personality

4724. Bandura, Albert; Ross, Dorothea, & Ross, Sheila A. (Stanford U.) **Imitation of film-mediated aggressive models.** *J. abnorm. soc. Psychol.*, 1963, 66(1), 3-11.—In a test of the hypothesis that exposure of children to film-mediated aggressive models would increase the probability of Ss' aggression to subsequent frustration, 1 group of experimental Ss observed real-life aggressive models, a 2nd observed these same models portraying aggression on film, while a 3rd group viewed a film depicting an aggressive cartoon character. Following the exposure treatment, Ss were mildly frustrated and tested for the amount of imitative and nonimitative aggression in a different experimental setting. The overall results provide evidence for both the facilitating and the modeling influence of film-mediated aggressive stimulation. In addition, the findings reveal that the effects of such exposure are to some extent a function of the sex of the model, sex of the child, and the reality cues of the model. (24 ref.)—*Journal abstract.*

4725. Boehm, Leonore. (Brooklyn Coll.) **The development of conscience: A comparison of American children of different mental and socioeconomic levels.** *Child Developm.*, 1962, 33(3), 575-590.—In a study of some aspects of conscience development in public schools (2 Catholic parochial schools and 1 Jewish parochial school), academically gifted children were compared with children of average intelligence, and upper middle-class children with children of the working class. Academically gifted children and upper middle-class children mature earlier in their moral judgments concerning distinctions between intention and outcome of an action. There is a greater difference between responses of the gifted and average children of the upper middle-class.—*W. J. Meyer.*

4726. Boehm, Leonore. (Brooklyn Coll.) **The development of conscience: A comparison of students in Catholic parochial schools and in public schools.** *Child Developm.*, 1962, 33(3), 591-602.—In terms of distinguishing between intent and results of an action, Catholic parochial school children, regardless of socioeconomic status or intelligence level, scored higher and at an earlier age than public school children. Academically gifted upper middle-class

children were similarly superior to children of average intellectual ability from the working classes. In terms of independence from adults, there was a tendency for middle-class children and for academically gifted upper middle-class children to score higher than their counterparts.—*W. J. Meyer.*

4727. Boehm, Leonore, & Naas, Martin L. (Brooklyn Coll.) Social class differences in conscience development. *Child Developm.*, 1962, 33(3), 565-574.—160 children from working class and upper middle class backgrounds were interviewed using Piaget's clinical method. 4 stories, designed to measure attitudes toward physical aggression, material values, lying, and integration of authority and authority dependence, were told each child. The stories did not differentiate between the social class levels. Girls were not superior to boys in terms of moral evaluations. There was a developmental trend in the direction of more mature moral evaluations with increasing age.—*W. J. Meyer.*

4728. Carrier, N. A., Orton, K. D., & Malpass, L. F. (Southern Illinois U.) Responses of bright, normal, and EMH children to an orally-administered manifest anxiety scale. *J. educ. Psychol.*, 1962, 53(6), 271-274.—Groups of children 10-14 years old differentiated (by WISC IQ) into bright (mean IQ 129), normal (mean IQ 102), noninstitutionalized educable mentally handicapped (EMH) groups (mean IQ 67), and an institutionalized EMH group (mean IQ 67) were given the Children's Manifest Anxiety scale (CMA scale) orally and individually. CMA scale scores generally differentiated the groups, and girls tended to have higher A scale and L scale scores than boys. Tentative evidence of a negative A scale IQ relationship as well as a possible acquiescence set in low-IQ Ss suggests caution in using the CMA scale.—*Journal abstract.*

4729. Cohen, Donald J. (Behavior Research Lab., Waltham, Mass.) Justin and his peers: An experimental analysis of a child's social world. *Child Developm.*, 1962, 33(3), 697-717.—A new instrument for the experimental analysis of social behavior is described. As an example of its usefulness, the performance of a normal 13-year-old is examined as he performs the task with different individuals (sister, close friend, mother, stranger).—*W. J. Meyer.*

4730. Coopersmith, S. (Wesleyan U.) Clinical explorations of self esteem. In G. Nielson (Ed.), *Proceedings of the XIV International Congress of Applied Psychology. Vol. 3. Child and education* (see 37: 4118). Pp. 61-78.—5 types of youngsters were identified on basis of self and behavioral ratings, and these were compared with test battery performance. A brief description of each type is given in terms of 5 variables: ability, energy, affect and anxiety, orientation and awareness, and stability.—*B. T. Jensen.*

4731. Gellert, Elizabeth. (Yeshiva U.) The effect of changes in group composition on the behaviour of young children. *Brit. J. soc. clin. Psychol.*, 1962, 1(3), 168-181.—"Fifty-five preschool-age children were observed in paired interaction while playing for a series of 20-minute sessions in a constant setting. The variability of individuals' dominance behaviour during three sessions wherein the partner remained constant, was compared with their variability during two sessions wherein the

identity of the playmate was varied. It was found that varying the identity of the playmate tended to decrease the stability of the test children's dominance behaviour significantly. There was also a significant tendency for individuals to display more dominance when paired with the less assertive of two playmates."—*C. M. Franks.*

4732. Groff, Patrick J. (San Diego State Coll.) Children's attitudes toward reading and their critical reading abilities in four content-type materials. *J. educ. Res.*, 1962, 55(7), 313-317.—This study suggested that the reading comprehension of an individual child is influenced by his attitude toward the content type of material being read. It pointed up the significant differences in attitudes toward reading due to sex characteristics. Attitude toward reading as a school activity has an important enough effect on the other variables of the study to warrant serious consideration.—*F. Goldsmith.*

4733. Heider, G. M. (National Inst. Mental Health) Vulnerabilities, sources of strength, and capacity to cope in the "normal" child. In G. Nielson (Ed.), *Proceedings of the XIV International Congress of Applied Psychology. Vol. 3. Child and education* (see 37: 4118). Pp. 79-93.—A description of the approach used in the "Coping Project" in Topeka and some sources of strength and vulnerability therein identified.—*B. T. Jensen.*

4734. Jamous, Haroun, & Lemaine, Gérard. Compétition entre groupes d'inégales ressources. [Competition between groups of unequal resources.] *Psychol. Franc.*, 1962, 7(3), 216-222.—Preliminary, quasi-experimental study of a group of 9-14-year-old children at a holiday camp. Hypothesis: If 2 groups with unequal resources were in competition for the same goal, intragroup phenomena (reaction to authority, social atmosphere) would be different for the 2 groups. Results were inconclusive but provocative.—*C. J. Adkins.*

4735. Johnson, Ronald C. (U. Hawaii, Honolulu) Early studies of children's moral judgments. *Child Developm.*, 1962, 33(3), 603-605.—A review of certain studies concerned with the development of moral judgment, published prior to Piaget's analysis, lend support to the more recent formulations.—*W. J. Meyer.*

4736. Larder, Diane L. (U. Washington) Effect of aggressive story content on nonverbal play behavior. *Psychol. Rep.*, 1962, 11(1), 14-15 4-year-old children were reinforced with 2 min. of story reading for pressing either of 2 bars, one resulting in activation of an aggressive toy, the other, a nonaggressive toy. $\frac{1}{2}$ the group, reinforced with aggressive story content, made more aggressive toy responses than the $\frac{1}{2}$ with nonaggressive content.—*B. J. House.*

4737. Levin, Gerald R., & Simmons, John J. (Brown U.) Response to praise by emotionally disturbed boys. *Psychol. Rep.*, 1962, 11(1), 10.—For 15 severely disturbed boys tested in a free-operant, 2-choice marble-dropping task, "praise did not function as a reinforcer for the group as a whole or for a majority of Ss."—*B. J. House.*

4738. Pulver, Urs, & Lang, Alfred. (Burgunderstr. 65, Bern, Switzerland) Von der "Störbarkeit" zur "Schüchternheit" in der Entwicklung

des Kindes: I. Verhaltensweisen der Erstklässler. [From "irritability" to "timidity" in child development: I. Modes of behavior among first graders.] *Schweiz. Z. Psychol. Anwend.*, 1961, 20(4), 329-344.—21 children from the Bernese Longitudinal Study were tested for behavioral signs of timidity at the age of 8 years. The experiment consisted of (a) a short interview and 10 minutes of a shopping game, during which several ratings and measurements of behavior were made and (b) a subsequent interview and a 10 minute continuation of the shopping game conducted by another E, who was not acquainted with the children. The hypothesized measure of timidity failed to differentiate between the children. However, 3 clusters of behavior were identified and one of them was held to represent the "basic attitude toward objects." (English summary)—J. W. House.

4739. Smock, Charles, & Holt, Bess Gene. (Purdue U.) Children's reactions to novelty: An experimental study of "curiosity motivation." *Child Develpm.*, 1962, 33(3), 631-642.—The purpose of this study was to test the hypotheses that environmental events which induce perceptual conflict will evoke behavior that maximizes perceptual contact with these "novel" objects, and that individual variation in perceptual rigidity will be negatively related to curiosity under these conditions. 44 1st-grade children (22 boys and 22 girls) were administered 4 tasks representing different types of perceptual conflict, stimulus ambiguity, stimulus incongruity, absence of stimulus support for conceptual structuring, and relative preference for the unknown, in addition to a measure of rigidity. Results generally supported both hypotheses.—Author abstract.

4740. Witryol, S. L., & Alonzo, Alexander A. (U. Connecticut) Social manipulation of preschool children's paired comparisons incentive preferences. *Psychol. Rep.*, 1962, 10, 615-618.—Scale values were obtained for 5 incentive objects, bubble gum, balloons, charms, marbles, and paper clips, presented by the method of paired comparisons to 20 preschool children instructed to indicate preference. Original preferences were compared with results of a retest during which Ss were informed that the other children preferred paper clips. A significant increase in preference for paper clips on the retest was interpreted as a demonstration of socially determined value.—B. J. House.

Parent-Child Relations

4741. Becker, Wesley C., Peterson, Donald R., Luria, Zella; Shoemaker, Donald J., & Hellmer, Leo A. (U. Illinois) Relations of factors derived from parent-interview ratings to behavior problems of five-year-olds. *Child Develpm.*, 1962, 33(3), 509-535.—On the basis of interviews, the childrearing practices and general attitudes of mothers and fathers of 71 kindergarten children were rated on from 64 to 71 scales. Factor scores were determined for mothers and fathers separately which were related to factors derived from parent and teacher ratings of children. Parent attitudes showed considerable similarity; high parent hostility and use of physical punishment were related to aggression in the child; personality problems in children showed few linear relations to parent behavior.—W. J. Meyer.

4742. Brooks, Edna E., Buri, Jane; Byrne, E. A., & Hudson, M. C. Socioeconomic factors, parental attitudes and school attendance. *Soc. Wks.*, 1962, 7(4), 103-108.—A study of factors affecting school attendance found a significant correlation between parental attitudes towards the school and attendance by the child. No significant relationships were found between school attendance and family income, parental educational level, and other often hypothesized relationships.—G. Elias.

4743. Chorost, Sherwood Bruce. (U. Texas) Parental child-rearing attitudes and their correlates in adolescent hostility. *Genet. Psychol. Monogr.*, 1962, 66(1), 49-90.—Parental attitudes were assessed through an adaptation of the Parent Attitude Research Instrument scales. Adolescent fantasy was measured using a revised scoring system for the Rosenzweig P-F test. Maternal and paternal Authoritarian Control attitudes were positively correlated with overt adolescent hostility ($P < .05$) and Paternal Warmth attitudes tended to be negatively related to overt hostility ($P < .10$). Although the two attitudes factors proved to be orthogonal, the findings did not support the interaction hypotheses implied in Schaefer's two-dimensional model. Rather they supported Sear's identification model.—Author abstract.

4744. Crites, J. O. (U. Iowa) Parental identification in relation to vocational interest development. *J. educ. Psychol.*, 1962, 53(6), 262-270.—The purpose of this study was to derive and test 3 hypotheses about the relationship of parental identification to vocational interest development: (a) degree of identification with the father and mother correlates with vocational interest pattern, (b) kind of identification with the father and mother varies with vocational interest pattern, and (c) pattern of identification is associated with masculinity-femininity of interests. Tests of the hypotheses were made on 3 groups of Ss ($N = 100, 100, 150$). Results from the Semantic Differential and Strong Vocational Interest Blank indicated that a son's identification with both of his parents significantly affects the patterning of his interests, but that his identification with the father is more important. (29 ref.)—Journal abstract.

4745. Geber, Marcelle. (20 Rue de la Source, Paris, France) Développement psycho-moteur des petits Baganda de la naissance à six ans. [Psychomotor development of Baganda children from birth to six years.] *Schweiz. Z. Psychol. Anwend.*, 1961, 20(4), 345-357.—In Uganda, 107 newborn and 303 children from 1 month to 6 years were studied. They represented 3 types of social milieu: traditional, European, and Europeanized. The new-born children were examined by the method of A. Thomas and Saint-Anne Dargassies, between 1 month and 3 years by the Gesell test, and between 3 and 6 years by Terman-Merrill's test combined with the Gesell. There were no notable differences between children from European and Europeanized environments with respect to their psychomotor development. However, the psychomotor development of traditionally reared children initially progressed at a faster rate than their European counterparts and decelerated markedly after the age of 2 years, when abrupt weaning took place. Intensity of mothering, suddenness of weaning, strictness of upbringing, stimulation, and environment are

discussed in relation to psychomotor development. (English summary)—J. W. House.

4746. Glarborg, K. (Ministry for Greenland, Copenhagen, Denmark) **Child-rearing in West Greenland.** In G. Nielson (Ed.), *Proceedings of the XIV International Congress of Applied Psychology. Vol. 3. Child and education* (see 37: 4118). Pp. 106-120.—Native children today are more impudent and disrespectful; parents are more severe. The author discusses some social and technological changes that seem to be associated.—B. T. Jensen.

4747. Greenbaum, Marvin. (U. Oregon Medical School) **The displaced child syndrome.** *J. child Psychol. Psychiat.*, 1962, 3(2), 93-100.—The displaced child is one who passively experiences frustration engendered by an abrupt diminution in parental nurturance and affiliation. Observations of 23 cases indicate varying symptoms but chiefly irritability, discouragement, clinging to parental figures, and jealousy of younger siblings. Many of the children rapidly improved when their parents were able to reinstitute a closer relationship based on a valuation of the child himself.—J. M. Reisman.

4748. Haber, L. D. (Look Magazine) **Age and integration setting: A re-appraisal of "The Changing American Parent."** *Amer. sociol. Rev.*, 1962, 27(5), 682-689.—"An unforeseen consequence of the method of classification of the entrepreneurial and bureaucratic families in [Miller and Swanson's] *The Changing American Parent* [see 33: 8015] is that it produced differences in the age distributions of the two groups studied. The history of changes in child care advice suggests an alternative and on the whole a more successful explanation of the reported findings. The differences between entrepreneurial and bureaucratic families in child rearing practices presented in the Detroit study are readily predictable from the knowledge that the two groups differ in age, since this implies that the parent socialization of the two groups occurred in different historical climates. While this appraisal does not eliminate the possibility that integration setting may be complementary to the historical variable in parent socialization, the hypothesis presented in the book—that occupational types influence child care practices—must be viewed, at best, as not yet validated."—L. Berkowitz.

4749. Hoffman, Martin L. (Merrill-Palmer Inst.) **The role of the parent in the child's moral growth.** *Relig. Educ.*, 1962, 57(4, Res. Suppl.), 18-33.—The effects of parental influence on child's moral growth are discussed.—S. A. Walters.

4750. Lynn, David B. (Coll. San Mateo) **Sex-role and parental identification.** *Child Developm.*, 1962, 33(3), 555-564.—The nature of the achievement of an appropriate sex-role and the process of parent identification differ for males and females. Thus males tend to identify with a cultural stereotype of the masculine role, whereas females tend to identify with aspects of their own mother's role specifically. An additional hypothesis suggests that in learning the appropriate identification each sex acquires separate methods of learning. An examination of the relevant research supports the theoretical assertions.—W. J. Meyer.

4751. Purcell, Kenneth. (Children's Asthma Research Inst. & Hosp., Denver, Colo.) **A method to**

assess aspects of parent-child relationships. *Child Developm.*, 1962, 33(3), 537-553.—"The present paper reported 3 experiments designed for preliminary evaluation of a research method to assess certain aspects of parent-child relationships. The method involved observing the effect of portrait color photographs of various maternal facial expressions upon S's performance in different experimental situations. Maternal cues appeared to exert a significant influence upon S's behavior in a learning task, a pseudo-ESP test, and a size estimation task."—W. J. Meyer.

4752. Schulman, R. E., Shoemaker, D. J., & Moelis, I. (U. Illinois) **Laboratory measurement of parental behavior.** *J. consult. Psychol.*, 1962, 26(2), 109-114.—41 boys, 8-12 years old, and their parents are observed in a laboratory situation. Parents of conduct problem children were rated as significantly more rejecting and hostile toward the children.—E. R. Oetting.

4753. Shaw, Merville C., & Dutton, Bert E. (Chico State Coll.) **The use of the Parent Attitude Research Inventory with the parents of bright academic underachievers.** *J. educ. Psychol.*, 1962, 53(5), 203-208.—Responses to the Parent Attitude Research Inventory of parents of bright 10th- and 11th-grade academic achievers were compared to the responses of parents of bright academic underachievers. The responses of mothers and fathers (a total of 151 participants) were considered separately and in accordance with the sex of the child. Parents of underachievers had significantly stronger negative attitudes toward their underachieving child. Particularly pronounced was a trend toward Suppression of Sexuality among parents of underachievers.—*Journal abstract.*

4754. Skard, A. G. (U. Oslo) **Longitudinal observations of changing family relations.** In G. Nielson (Ed.), *Proceedings of the XIV International Congress of Applied Psychology. Vol. 3. Child and education* (see 37: 4118). Pp. 13-18.—"... parents as human beings change with age and are changed by the circumstances that life gives them." Reference is made to changes in sibling as well as parent attitudes.—B. T. Jensen.

4755. Stott, D. H. (Glasgow U.) **Abnormal mothering as a cause of mental subnormality: I. A critique of some classic studies of maternal deprivation in the light of possible congenital factors.** *J. child Psychol. Psychiat.*, 1962, 3(2), 79-91.—A neglected factor in these studies is stress experienced by the mother during pregnancy which research indicates might lead to physical illnesses and defects and personality impairments in offspring. It is hypothesized that the institutionalized child is often the victim of congenital damage due to his mother's unhappy and/or unhealthy pregnancy and that this variable, rather than maternal deprivation, is crucial.—J. M. Reisman.

4756. Zurich, M. (Texas Woman's U.) **The relation between parental attitudes toward child rearing and child behavior.** *J. consult. Psychol.*, 1962, 26(2), 197.—Relationship between the Parental Attitude Research Instrument given to parents and a time sampling of child behavior are significant only in a percentage attributable to chance.—E. R. Oetting.

ADOLESCENCE

4757. Bergler, Reinhold. (Nuremberg) *Die psychologische Struktur der Leitbilder jugendlicher*. [Psychological structure of life-goals in adolescence.] *Vita hum.*, Basel, 1962, 5(1), 34-60.—This study compares the life-goals of a group of adolescents with those of a representative sample of adult West Germans by means of projective interviews. It was found that the adolescents tend unconsciously to subscribe to the behavior pattern approved and structured by the adult world. At the same time they tend to feel consciously isolated from the adult community. The results are discussed in terms of a theory of life-goals.—J. L. Yager.
4758. Bronfenbrenner, Urie. (Cornell U.) *Soviet methods of character education: Some implications for research*. *Relig. Educ.*, 1962, 57(4, Res. Suppl.), 45-61.—The influence of the peer group upon character development of youth in Soviet Russia is discussed.—S. A. Walters.
4759. Clarke, H. Harrison, & Degutis, Ernest W. (U. Oregon) *Comparison of skeletal age and various physical and motor factors with the pubescent development of 10, 13, and 16 year old boys*. *Res. Quart. Amer. Ass. Hlth. Phys. Educ. Recr.*, 1962, 33(3), 356-368.—The findings of this study indicated that physical maturation was differentiated most effectively at 13 years of age, although it was not so sensitive to maturational changes as was skeletal age; at 16 years, maturational differentiation was much more limited; and at 10 years, little or no value can be attributed to this method. The 13- and 16-year-old boys who were advanced in pubescent development had higher mean scores on all physical and motor tests studied with few exceptions; generally, the differences between the means were significant. In terms of physique types, the only significant difference was found at 16 years of age, where a greater percentage of ectomorphs was found in pubescent Group 4 than in Group 5.—*Journal abstract*.
4760. Goppert, H. (Psychiatrische Nervenklinik, U. Freiburg, Germany) *Sexual krisen bei Jugendlichen*. [Sexual crises in adolescents.] *Z. Psychother. med. Psychol.*, 1962, 12(3), 112-122.—Masturbation and exhibitionism in adolescents are viewed from the frame of reference of an extended concept of the "Freudian libido." Sexual crises in adolescents basically represent disturbances in this process of maturation which could be termed "becoming."—I. Neufeld.
4761. Graubard, Stephen R. (Ed.) *Youth: Change and challenge*. *Daedalus*, 1962, 91(1), 1-239.—This is a collection of papers on the nature of youth, the problems of identity and development encountered by youth, and on the similarities and differences in the cultural patterning of the opportunities and problems of youth. Papers are included by Bruno Bettelheim, Reuel Denney, S. N. Eisenstadt, Erik H. Erikson, Kenneth Keniston, Robert J. Lifton, Kasper D. Naegele, Talcott Parsons, George Sherman, and Laurence Wylie.—K. E. Davis.
4762. Havighurst, Robert J., Bowman, Paul H., Liddle, Gordon P., Matthews, Charles V., & Pierce, James V. *Growing up in River City*. New York: Wiley, 1962. xiii, 189 p. \$4.50.—This, the 1st of a series, describes a longitudinal study carried on from 1951 to 1960 with an initial group of 6th graders in a midwestern community of 45,000. Through the present report is concerned primarily with the control group, it describes in detail how boys and girls grow up in a "typical" community. The main emphasis is on how the family, the school, and the community organize their entire resources to provide these youth with the best possible chance to grow into adequate adults regardless of abilities and social-class backgrounds.—H. Angelino.
4763. Kennedy, W. A., Turner, A. J., & Lindner, R. (Florida State U.) *Effectiveness of praise and blame as a function of intelligence*. *Percept. mot. Skills*, 1962, 15(1), 143-149.—High school students were tested on a visual discrimination task. It was found that for intellectually average or slightly above high school children, blame has a somewhat variable but generally strong inhibiting effect on performance. At the upper end of the intelligence scale this does not hold and there is no difference between the effects of praise and blame.—W. H. Guertin.
4764. Lesser, Gerald S., Krawitz, Rhoda N., & Packard, Rita. (Hunter Coll.) *Experimental arousal of achievement motivation in adolescent girls*. *J. abnorm. soc. Psychol.*, 1963, 66(1), 59-66.—2 groups of female high school students (40 achievers and 40 underachievers, matched for IQ) were exposed to 2 experimental conditions (Neutral and Achievement Oriented) and 2 types of pictures (those depicting males and those depicting females). The overall effect of the experimental achievement arousal conditions for all girls was nonsignificant. However, a highly significant 2nd-order interaction effect was obtained: the achievement motivation scores of achievers increased significantly in response to Achievement Oriented conditions when they produced stories to pictures of females but did not increase in response to pictures of males; by contrast, the achievement motivation scores of underachievers increased significantly in response to Achievement Oriented conditions when they produced stories to pictures of males but did not increase in response to pictures of females. (43 ref.)—*Journal abstract*.
4765. Livson, N., & McNeill, D. (U. California, Berkeley) *The accuracy of recalled age of menarche*. *Hum. Biol.*, 1962, 34(3), 218-221.—At about age 30 the mean recalled age of menarche of 43 women, whose mean actual age of menarche was 12.8 years, was 12.3 years. Although by t-test the difference was significant ($P < .001$), it is likely that it would have been less had an improved recall procedure been employed.—P. Swarts.
4766. Miller, E. *Individual and social approach to the study of adolescence*. *Brit. J. med. Psychol.*, 1962, 35(3), 211-224.—"Adolescence as we have noted repeatedly is a process of socialization parallel with the acquisition of ego-identity, and therapy must have its roots in individual psychopathology and in social dynamics." There are special issues in the treatment of the adolescent having to do with the training, age, and sex of the therapist. Often, group therapy is especially useful.—C. L. Winder.
4767. Remmers, H. H. (Purdue U.) *Cross-cultural studies of teenagers' problems*. *J. educ. Psychol.*, 1962, 53(6), 254-261.—This paper reports findings from representative stratified samples of more than 5000 teenagers in school in the United States,

Puerto Rico, West Germany, and India who responded to the Science Research Associates Youth Inventory, a problem check list adapted to each of the cultures surveyed. Mean scores, reliability estimates, intercorrelations of subscale scores, and factor analyses of these matrices all lead to the conclusion that (a) the measuring instrument is highly reliable, (b) teenagers' self-perceived problems can be comparably measured across widely different cultures, (c) rankings of problem areas across cultures are highly similar, (d) health problems are of least concern and post-highschool problems of most concern. The amount and intensity of worry varies greatly across cultures.—*Journal abstract.*

4768. Tanner, J. M., & O'Keeffe, B. (U. London, England) Age at menarche in Nigerian school girls, with a note on their heights and weights from age 12 to 19. *Hum. Biol.*, 1962, 34(3), 187-196.—The mean menarcheal age of high economic status Ibo girls attending 3 Roman Catholic residential secondary schools in Eastern Nigeria was 14.1 years. For 95% of the girls menarche was experienced within the age range 11.2-17.0 years.—P. Swartz.

4769. Vernon, P. E. (U. London) Intelligence and intellectual stimulation during adolescence. *Indian psychol. Bull.*, 1957, 2, 1-6.—The present article reports briefly 3 investigations in which, not quantity, but quality of schooling during adolescence was shown to influence intellectual development. The general implications of these studies are that we should cease to classify the abilities of adolescents and young adults under the simple headings of attainments (affected by schooling) and "g" or intelligence (dependent purely on maturation or innate factors). Certain aspects of intelligence, in particular flexibility of thinking, are as much, or more, affected by the stimulation that different environments and different types of schooling provide as are the conventional attainments.—A. K. Ganguly & K. Ray-Chowdhury.

4770. Withey, Stephen B. (U. Michigan) The influence of the peer group on the values of youth. *Relig. Educ.*, 1962, 57(4, Res. Suppl.), 34-44.—Peer group impact upon values of American youth is discussed.—S. A. Walters.

MATURITY & OLD AGE

4771. Anderson, J. E., Jr. (Florida State U.) Aging and educational television: A preliminary survey. *J. Gerontol.*, 1962, 17, 447-449.—". . . it is possible to state with some certainty that there is an audience for special interest programs designed to reach the senior citizen and that educational television is a medium whereby these citizens can be made accessible."—J. Botwinick.

4772. Birren, J. E., & Speith, W. (National Inst. Mental Health) Age, response speed, and cardiovascular functions. *J. Gerontol.*, 1962, 17, 390-391.—33 psychological and physiological measures were made on 161 male Ss between the ages of 23 and 60 years. The correlational matrix and factor analysis of these variables indicated higher relations between age and psychological measures than between age and physiological measures. Cardiovascular functions were not correlated with cognitive and psychomotor functions.—J. Botwinick.

4773. Davis, R. W. (Portland U.) The relationship of social preferability to self-concept in an aged population. *J. Gerontol.*, 1962, 17, 431-436.—The factors Self-concept, Personal Adjustment, and Social Functioning were investigated in a sample of 33 ambulatory residents of a home who ranged in age from 70 to 96 yrs. A relationship was found between self-estimates and effectiveness in social interaction.—J. Botwinick.

4774. Dean, Lois R. (Portland State Coll.) Aging and the decline of affect. *J. Gerontol.*, 1962, 17, 440-446.—4 affective states (anger, irritation, boredom, and loneliness) as they change with age were investigated by questionnaire. Loneliness increases in later life and the other 3 states decrease.—J. Botwinick.

4775. Gilbert, Jeanne G., & Hall, M. R. (Mt. Carmel Guild Guidance Inst., Newark, N. J.) Changes with age in human figure drawing. *J. Gerontol.*, 1962, 17, 397-404.—Quantitative and qualitative changes in the human figure drawings of 400 normal persons between the age of 10 and 91 years and 210 hospitalized schizophrenic patients between ages 20 and 50 years were described.—J. Botwinick.

4776. Hodgkins, Jean. (California U.) Influence of age on the speed of reaction and movement in females. *J. Gerontol.*, 1962, 17, 385-389.—RTs and movement times were measured of 480 female Ss ranging in age from 6 to 84 years. RTs improved from childhood to 19 years, remained constant to 26 years, and slowed with age thereafter. RT and movement time were "uncorrelated in all age level groups studied, with one exception, that of the group between the ages of 23-37."—J. Botwinick.

4777. Jeffers, Frances C., Eisdorfer, C., & Busse, E. W. (Duke U.) Measurement of age identification: A methodologic note. *J. Gerontol.*, 1962, 17, 437-439.—Self-age category placement by Ss in the present study was compared to that by Ss in a standardized inventory of activities and attitudes. Differences were found.—J. Botwinick.

4778. Johnson, L., & Strother, G. B. (Washington State Coll.) Job expectations and retirement planning. *J. Gerontol.*, 1962, 17, 418-423.—Several hypotheses regarding relations between attitudes towards retirement and attitudes and experiences of job were examined by a structured interview and attitude checklists. The results were discussed in the context of the hypotheses and in relation to differences between age groups.—J. Botwinick.

4779. Pollack, M., Karp, E., Kahn, R. L., & Goldfarb, A. I. (Dept. Mental Hygiene, Queens Village, N. Y.) Perception of self in institutionalized aged subjects: I. Response patterns to mirror reflection. *J. Gerontol.*, 1962, 17, 405-408.—Response to self-mirror reflections was studied in Ss 65 years or older. Data of 696 Ss suggested that the technique of mirror reflection is a useful adjunct to the mental examination of the elderly.—J. Botwinick.

4780. Schaie, K. Warner. (U. Nebraska) A field-theory approach to age changes in cognitive behavior. *Vita hum.*, Basel, 1962, 5(3), 129-141.—"A view of aging in cognitive behavior is offered, which traces the process as a function of developmental changes in the restraint-coping ability of the individual to the widening and constriction of his

life-space. Three principal restraint dimensions were suggested and operations from the study of rigidity-flexibility were offered as possible measures of the individual's ability to cope with the specified restraints. The concepts of differentiation and regression were also examined in the context of a field-theory oriented developmental framework."—J. L. Yager.

4781. Thumin, F. J. (Washington U., St. Louis) **Reminiscence as a function of chronological and mental age.** *J. Gerontol.*, 1962, 17, 392-396.—Reminiscence of a pursuit rotor problem was measured on 234 Ss divided into 5 CA groups. The youngest 3 CA groups were subdivided into 3 MA groups. "Amount of reminiscence increased between late childhood and early adulthood, then decreased through advanced adulthood." The curve of reminiscence in relation to CA "was strikingly similar to that of the mental growth curve."—J. Botwinick.

4782. Weiss, J. M. A., Willis, B. B., Jones, J. M., Schaie, K. W., Robins, A. J., & Fields, G. L. **Predicting the psychiatric problems of older persons: A follow-up study.** *Comprehens. Psychiat.*, 1961, 2 (6), 350-357.—The Psychiatric Evaluation Index (PEI) was administered to a group of psychiatric clinic outpatients 2 years after it had first been given. Patients were also interviewed and scored on social functioning. The PEI is useful as a predictor of future social functioning. This is a pilot study on gathering data for programs of prevention, treatment, and rehabilitation.—D. Prager.

4783. Zborowski, M., & Eyde, Lorraine, D. (Age Cent. New England) **Aging and social participations.** *J. Gerontol.*, 1962, 17, 424-430.—"The 204 men and women who were interviewed with regard to their experiences and attitudes in the area of social participation did not suggest many changes as they grew older."—J. Botwinick.

SOCIAL PSYCHOLOGY

4784. Albou, Paul. **Problèmes actuels de la psychologie économique.** [Real problems of economic psychology.] *Psychol. Franc.*, 1962, 7(3), 190-200.—Outline and discussion of economic psychology as a new branch of social psychology.—C. J. Adkins.

4785. Back, Kurt W. (Duke U.) **Social research as a communications system.** *Soc. Forces*, 1962, 41(1), 61-68.—An illustration of the "logical stability" or systems approach to questionnaire design, interviewing, analysis of data, and theory.—A. R. Howard.

4786. Brim, Orville G., Jr., Glass, David C., Lavin, David E., & Goodman, Norman. **Personality and decision processes: Studies in the social psychology of thinking.** Stanford, Calif.: Stanford Univ. Press, 1962. ix, 336 p. \$8.00.—In a systematic investigation of the processes involved in decision-making, 96 couples in 3 categories (middle class, lower class, and interaction) were given a number of personality tests and the Decision Process Test (DPT). The DPT concerns the actions parents might take in situations involved with masturbation, homework, obedience, and stealing. Part I describes the theory and method, Part II correlates personality and socioeconomic characteristics, Part III analyses

the differences between couples who worked together on the decisions (interaction sample) from those who did not, and Part IV relates formal decision theory to the decisions made by the middle-class couples. (2 appendixes)—E. D. Lawson.

4787. Couch, A. S. (Harvard U.) **The psychological determinants of inter-personal behavior.** In G. Nielson (Ed.), *Proceedings of the XIV International Congress of Applied Psychology. Vol. 2. Personality research* (see 37: 4117). Pp. 111-127.—The article presents and expands upon the theory that "every act of complex social behavior has multiple determinants that arise from two different realms—the personality system and the surrounding social environment."—B. T. Jensen.

4788. Fink, Joseph. (Systems Development Corp., Santa Monica) **Life in a missile community.** *J. soc. Issues*, 1961, 17(2), 29-35.—An overview of the impact of space on the social, economic, and educational institutions of communities involved with space agencies and their associated technological support systems. In general, such impact has been negligible and public acceptance is matter of fact.—A. Barclay.

4789. Goodwin, L. **The historical-philosophical basis for uniting social science with social problem-solving.** *Phil. Sci.*, 1962, 29(4), 377-392.—Although "these are powerful arguments for considering the social scientific endeavor as fundamentally separate from social problem-solving," the reflexive impact of the knowledge of social science requires that we adopt an experimental attitude toward social problems. "The uniting of certain aspects of Galilean-Newtonian and Hegelian-Marxian thought provides a genuinely experimental social science in which abstract hypothesis testing is united with social action."—M. Turner.

4790. Guetzkow, H. (Northwestern U.) **Undergirding peace strategies through research in social science.** In G. Nielson (Ed.), *Proceedings of the XIV International Congress of Applied Psychology. Vol. 1. Psychology and international affairs* (see 37: 4116). Pp. 88-96.—A relatively small amount of basic research in the social sciences has reference to war and peace. This article gives some areas of knowledge in which work is needed and suggests alternative procedures for accelerating social science research.—B. T. Jensen.

4791. La Barre, Weston. (Duke U.) **They shall take up serpents: Psychology of the southern snake-handling cult.** Minneapolis, Minn.: Univ. Minnesota Press, 1962. 208 p. \$3.75.—The snake-handling cult is spontaneous and unstructured like the holy rollers. Faith healing; speaking in tongues; and by the elect, the handling of copperheads and rattlesnakes along with dancing and singing, give the people an emotional outlet. The snake as a phallic symbol has its counterpart in Egyptian, African, and Hebrew culture; circumcision symbolizes shedding of the snake's skin. "The joyfully guilty masturbatory handling of the phallic snake takes place freely in a cult asserting the power of mind over matter, and the same onanism is induced in his female communicants." The cult has been outlawed in most states since the death of several of its adherents from snake bites, but in leading people with meager and joyless lives through punitive cultural fictions, the

leader may be rendering a therapeutic service.—G. K. Morlan.

4792. Lewis, Lionel S., & Lopreato, J. (U. Nevada) **Arationality, ignorance, and perceived danger in medical practices.** *Amer. sociol. Rev.*, 1962, 27 (4), 508-514.—“The paper validates the hypothesis that arationality [the use of or belief in theologically accepted or magico-religious practices, or use of ineffective health foods, herbs, etc.] in the prevention or treatment of an illness stands in direct relation to perceived danger inherent in that illness, and in inverse relation to medical knowledge about it. . . . The supporting data are drawn from interviews with 104 mothers of children who have suffered one of four illnesses differing in various respects. Arationality is a likely function of stress, but rationality in turn seems to be a functional alternative to arationality. The conclusion is drawn that there is a trend in human society towards greater rationality. Various factors militating against this probability are recognized.”—L. Berkowitz.

4793. Mack, Raymond W., & Baker, George W. (Northwestern U.) **The occasion instant: The structure of social responses to unanticipated air raid warnings.** Washington, D. C.: National Academy of Sciences-National Research Council, 1961. (NAS-NRC Publ. No. 945, Disaster Study No. 15) xv, 69 p. \$2.00.—Data analyzed in this report are from 3 studies of responses to unanticipated air raid warnings in Oakland, California, in 1955; Washington, D. C., in 1958; and Chicago, Illinois, in 1959. There is an effort to ferret out similarities of response and to propose hypothetical generalizations. Questions are posed for future research, and implications are stated for civil defense agencies. “Regrettably, all the studies to date indicate that people seldom instantly adopt an adequate course of protective action after they have a disaster warning. However, since patterned human behavior is socially learned, we believe that dysfunctional post-warning behavior can be significantly modified and improved.”—R. Lawner.

4794. Martin, Edward A. **Psychology of funeral service.** (4th ed.) Grand Junction, Colo.: Sentinel, 1962. xv, 286 p.—Besides presenting in separate chapters the contents of general psychology, topics of particular interest to funeral directors are considered such as grief, sentiment, religion, public relations, and practice and theory of the funeral service.—D. J. Wack.

4795. National Academy of Sciences-National Research Council, Disaster Research Group. **Field studies of disaster behavior: An inventory.** Washington, D. C.: NAS-NRC, 1961. (NAS-NRC Publ. No. 886, Disaster Study No. 14) ix, 78 p. \$2.00.—“This document provides a relatively complete list of the field studies on human behavior in disaster that have been conducted by behavioral scientists.” An inventory of 114 field studies of human behavior in 103 different disaster situations is categorized on the basis of the disaster agents as follows: airplanes; blizzards; earthquakes, volcanic eruptions, and other land movements; epidemics and epidemic threats; explosions and fires; false alerts; floods; hurricanes and typhoons; mine disasters; tornadoes; toxicological substances; World War II bombings; and miscellaneous. Each study is described in terms of the event, date, location, and damage; number of inter-

views, research agency, and principal research personnel; and bibliographic reports and references. In addition, Appendix A presents the same type of analysis of laboratory studies of simulated disaster conditions; Appendix B, of studies of civil defense exercises. An “Index of Research Agencies and Principal Research Personnel” is provided.—R. Lawner.

4796. Osgood, C. T. (U. Illinois) **Toward international behavior appropriate to a nuclear age.** In G. Nielson (Ed.), *Proceedings of the XIV International Congress of Applied Psychology. Vol. 1. Psychology and international affairs* (see 37: 4116). Pp. 109-132.—After discussing “dynamics of the cold war mentality” and the need to reduce tensions, tension reduction through unilateral action was proposed.—B. T. Jensen.

4797. Pfuetze, Paul E. **Self, society, existence: Human nature and dialogue in the thought of George Herbert Mead and Martin Buber.** New York: Harper, 1961. vi, 400 p. \$2.25.—A paperback edition of a book originally published in 1954.—C. T. Morgan.

4798. Rosenberg, Morris. (National Inst. Mental Health) **Test factor standardization as a method of interpretation.** *Soc. Forces*, 1962, 41 (1), 53-61.—“Interpretation,” the explanation of a relationship between 2 variables by means of an intervening variable (“test factor”), is a major tool in survey research. In some cases when it is a difficult method to employ, one can be aided by resorting to the technique of “standardization.” A simplified procedure for computing standardizations is offered.—A. R. Howard.

4799. Ruitenbeek, Hendrik M. (Ed.) **Psychoanalysis and social science.** New York: Dutton, 1962. xxvii, 226 p. \$1.65 (paper).—12 papers on the relationship between the social sciences and psychoanalysis are presented. Authors included are H. D. Lasswell, T. Parsons, H. Hartmann, G. Roheim, J. R. Seeley, M. Bonaparte, N. Kelman, Erik and Kai Erikson, E. Van Den Haag, and J. Meerloo. There is a selective bibliography at the end of the book for those interested in delving further into this topic.—F. J. Goldstein.

4800. Saul, L. J. **Some psychological bases of war and peace.** *Comprehen. Psychiat.*, 1961, 2(3), 134-139.—Hostility of man against man stems from patterns of disturbed relations during earliest childhood among family members or their substitutes. The preventive task to achieve permanent peace and brotherhood is to see that children are properly reared, especially from conception to years 5, 6, or 7. Religion, science, education, labor, and government must work together if this task is to be less than insuperable.—D. Prager.

4801. Szewczuk, W. **Ideologia, polityka i psychologia.** [Ideology, politics, and psychology.] *Psychol. Wych.*, 1962, 5(2), 121-132.—Because political systems embody philosophical views, particularly on the nature of man, a psychologist cannot escape a definite ideology; consequently, a certain political orientation. Using this premise, the author reviews the work of the 14th International Congress of Applied Psychology. He cites examples why it is utopian to think that psychology can be employed to reduce world tensions.—H. Kaczowski.

CULTURE & CULTURAL RELATIONS

4802. Ainsworth, Leonard H., & Ainsworth, Mary D. (Johns Hopkins U.) **Acculturation in East Africa: I. Political awareness and attitudes towards authority.** *J. soc. Psychol.*, 1962, 57(2), 391-399.—Sentence completion, thematic apperception, and figure-drawing tests were administered to 355 students of 6 secondary schools in Uganda and Kenya selected to represent different levels of acculturation. The more acculturated more frequently than the less acculturated: (a) felt hostile toward authority, (b) were mixed in opinions about authority, (c) were more aware politically and more actively discontent, and (d) were more nationalistic in identification. Degree of acculturation was nonmonotonically related to readiness to identify with Europeans and to a covert tendency to view them as dominant.—*Author abstract.*

4803. Ainsworth, Leonard H., & Ainsworth, Mary D. (Johns Hopkins U.) **Acculturation in East Africa: III. Attitudes toward parents, teachers and education.** *J. soc. Psychol.*, 1962, 57(2), 409-415.—Sentence completion and thematic apperception tests were given to 355 students of 6 secondary schools in Uganda and Kenya selected to represent different levels of acculturation. The more acculturated tended to assign a higher value to education than did the less acculturated, although they were more critical of teachers, as indeed, according to earlier reports, they were more critical of other authority figures. A few differences in attitudes to parents followed the acculturation gradient, others seemed attributable to special acculturation influences associated with sub-cultures, and a few to the influence of the "old" culture.—*Author abstract.*

4804. Ainsworth, Mary D., & Ainsworth, Leonard H. (Johns Hopkins U.) **Acculturation in East Africa: II. Frustration and aggression.** *J. soc. Psychol.*, 1962, 57(2), 401-407.—The Rosenzweig Picture-Frustration, Sentence Completion, and Thematic Apperception tests were given to 355 students of 6 secondary schools in Uganda and Kenya selected to represent different levels of acculturation. In comparison with the less acculturated, the more acculturated: (a) were more frequently frustrated by authority and by the aggression of others, (b) were more frequently aggressive, (c) were more frequently in-punitive and need-persistent, (d) less frequently feared aggression or viewed it and rebellion against authority to be wrong, (e) were less frequently obstacle-dominant, especially extrapunitive obstacle-dominant, and impunitive.—*Author abstract.*

4805. Ainsworth, Mary D., & Ainsworth, Leonard H. (Johns Hopkins U.) **Acculturation in East Africa: IV. Summary and discussion.** *J. soc. Psychol.*, 1962, 57(2), 417-432.—This paper discusses the findings of 3 earlier papers on the effects of acculturation on the personality and attitudes of 355 students of 6 secondary schools in Uganda and Kenya under the following headings: (a) the common characteristics of the total sample, (b) differences attributable to "old" cultures, and (c) differences attributable to special acculturation influences of sub-cultures. Finally (d), the differences attributable to general level of acculturation were formulated in 11 propositions; 6 of these propositions were hypotheses originally guiding the study and supported by its find-

ings, while 5 may be viewed as "new" hypotheses growing out of the data.—*Author abstract.*

4806. Allen, Martin G. (Yale U.) **The development of universal criteria for the measurement of the health of a society.** *J. soc. Psychol.*, 1962, 57(2), 363-382.—Criteria for measuring the health and level of adjustment of a society are formulated through the use of the concept of ego strength. Ego strength refers to the ability to cope with the problems of reality—adequately, directly, realistically. The results of both empirical and theoretical studies which are concerned with healthy, mature, effective functioning are combined, and each variable used in the measurement of ego strength has both empirical and theoretical support. The criteria are presented in terms of both the activities of individuals in the social group and also the factors (values, attitudes, beliefs) underlying the social organization and determining social (and individual) behavior. A rating scale for measuring societies is also presented.—*Author abstract.*

4807. Back, Kurt W., Hill, Reuben, & Stycos, J. Mayone. **Population control in Puerto Rico: The formal and informal framework.** *Law contemp. Probl.*, 1960, 25(3), 558-576.—This paper is divided into 2 parts. The 1st part presents a formal analysis of the relationships between the feasibility of a social act and its conformance to a social norm which is derived from alethic and deontic modal logics. The 2nd part describes the historical development of the population problem in Puerto Rico, including the legal and administrative situation, the current status of birth control practices, and the distribution of attitudes toward and information about birth control as they are related to religious affiliation, educational attainment, and urban-rural background.—*K. E. Davis.*

4808. Cortis, L. E. **A comparative study in the attitudes of Bantu and European workers.** *Psychol. Afr.*, 1962, 9, 148-167.—The results of an interview form used to study Bantu ($N=78$) and European ($N=63$) attitudes are discussed and analyzed. Europeans are more concerned with prestige. The Bantus are more concerned with security, status, and opportunities for advancement. Further, the Bantus are more self-centered and show less group consciousness.—*J. L. Walker.*

4809. Cryns, Arthur G. J. (U. Detroit) **African intelligence: A critical survey of cross cultural intelligence research in Africa south of the Sahara.** *J. soc. Psychol.*, 1962, 57(2), 283-301.—A review of African-White differences in intelligence. Both quantitative and qualitative differences are discussed as well as the interpretation of these differences in terms of the "nature-nurture" issue. A concise review of Negro-white differences in brain morphology precedes the psychological studies. (53 ref.)—*Author abstract.*

4810. Demos, George D. (San Fernando Valley State Coll.) **Attitudes of Mexican-American and Anglo-American groups toward education.** *J. soc. Psychol.*, 1962, 57(2), 249-256.—The study attempted to isolate attitude differences in pupils from Grades 7 through 12. 3 samples of 105 children were selected: Mexican-American; a randomly selected group of Anglo-American; and a group of Anglo-Americans matched with the Mexican-American sample on age,

grade, sex, social class, and intelligence. The method of successive intervals was used in developing the attitude scales. Significant differences of attitude are found among the Mexican-American and Anglo-American groups. In every case where a difference is found between the random samples, the Anglo-American groups have what was judged the more desirable attitude. In the matched sample comparisons, in only one case do the Mexican-American students have what is considered the more desirable attitude. The general agreement between the Mexican-American and Anglo-American Ss is greater than the disagreement. Matching of the Mexican-American and Anglo-American groups does reduce the number of differences of attitude but 6 differences remain significant.—*Author abstract.*

4811. DeRidder, J. C. *The personality of the urban African in South Africa: A Thematic Apperception Test study.* New York: Humanities, 1961. 180 p. \$4.00.—The personality functions of 2500 literate, male, Negro Johannesburgers are illustrated by sample extracts of test responses on the African TAT. Relationships between personality characteristics and cultural influences are analysed in detail, and recurrent themes are identified. A personality analysis of the African nationalist is delineated.—*C. W. Page.*

4812. Derossi Zaccone, F. *Valori culturali e sviluppo delle motivazioni: Il "need for achievement" e il "need for affiliation" in uno studio su 281 soggetti.* [Cultural values and development of motivations: The need for achievement and need for affiliation in a study of 281 subjects.] *Riv. Psicol. soc.*, 1962, 29(1), 101-11.—A comparison of cultural norms of need for achievement and need for affiliation for United States, Italy, Turkey, and Poland.—*L. L'Abate.*

4813. Faverge, J. M., & Falmagne, J. C. *On the interpretation of data in intercultural psychology.* *Psychol. Afr.*, 1962, 9, 22-36.—Research concerning the African (an educated "black") has been difficult. Simon Biesheuval has been a pioneer and leader. Schooling and familiarity with the European way of thinking greatly influence African test scores. (25 ref.)—*J. L. Walker.*

4814. Fuster, J. M. (St. Xavier's Coll., Bombay, India) *A study of the Edwards Personal Preference Schedule on Indian college students.* *J. soc. Psychol.*, 1962, 57(2), 309-314.—Edwards' normative population and a sample of 288 male and female Indian students of St. Xavier's College, Bombay, were compared on the EPPS. The masculinity and femininity patterns of Indian students coincide largely with the corresponding American patterns, but highly significant differences were found in the relative strength of the 15 personality tendencies.—*Author abstract.*

4815. Garrett, H. E. (Columbia U.) *Garrett's reply.* *Eugen. Quart.*, 1962, 9(3), 163-165.—In replying to Wallace (see 37: 4829) the author states that ideological pressures have harassed scientists during the last 30 years.—*S. G. Vandenberg.*

4816. Holleman, J. F., Mann, J. W., & Van den Bergh, Pierre L. (U. Natal) *A Rhodesian white minority under threat.* *J. soc. Psychol.*, 1962, 57(2), 315-338.—This study of a sample of white high-

school students on the Copperbelt took the form of an essay contest followed up by a questionnaire. The major aim was to assess attitudinal reaction to the drastic changes (Congo independence and abolition of the color bar in Northern Rhodesia) that took place between the 2 phases of the study. The main dimensions were racial attitudes, expectation and acceptance of change, and prospects of permanent settlement in Rhodesia. While African advancement was rejected to a greater extent than it was accepted, and while our Ss exhibited traditional white conservatism and anti-African prejudices, there was nevertheless a willingness to adapt to new conditions in order to remain in Rhodesia.—*Author abstract.*

4817. Jacobs, Norman. (Ed.) *Mass culture and mass media.* *Daedalus*, 1960, 89(2), 271-431.—A distinguished group of artists, historians, literary critics, sociologists, and social philosophers attempt to define mass culture, to determine whether or not our contemporary culture is a mass culture, and to assess the effects of the mass media upon our culture and particularly upon the functioning of creative artists.—*K. E. Davis.*

4818. Jahoda, Gustav. (U. Glasgow) *Traditional healers and other institutions concerned with mental illness in Ghana.* *Int. J. soc. Psychiat.*, 1961, 7(4), 245-268.—"Leighton may or may not be right when he claims that rapid acculturation results in an increase of mental illness; as far as Ghana is concerned he is definitely wrong in his view that natural counsellors (wise men, religious leaders, professional healers, etc.) are no longer able to exert their beneficent activity." The outstanding finding in this Ghana study was its demonstration of how extensively traditional institutions have adapted themselves to cope with new needs, and also how new institutions have sprung up for serving such needs. The lesson from this study is that any attempt at enlightenment ought to be cautious in condemning traditional healers and similar institutions, because they perform an extremely important function.—*R. M. Frumkin.*

4819. Katz, F. M. (U. New England, Australia) *A cross-cultural study of adolescent aspirations.* *J. soc. Psychol.*, 1962, 57(2), 277-281.—Using answers to several questions, designed to ascertain the vocational expectations of adolescent boys, an "index of orientation" was constructed. A comparison of the English and Australian samples on this shows that the majority of both samples indicate no expectation of changing their occupational status throughout their working life. A significantly larger proportion of Australian boys expect to achieve occupational mobility. It is suggested that this reflects a difference in the cultural frame of aspirational reference.—*Author abstract.*

4820. Klinger, M. Robert B. *Moral values across cultures.* *Personnel Guid. J.*, 1962, 41(2), 139-143.—Through a questionnaire based on the Scale of Student Behavior by Mueller, suggestions are offered to foreign student counselors to help them distinguish between foreign student groups and American students as to expressed moral values and to clarify the structures and dimensions, organizing expressed values into larger entities. Results based on American graduate Protestants, Arab Moslems, Chinese non-Christians, Indian Hindus, South American Roman

Catholics, Turkish Moslems, and American pre-freshmen Protestants are presented.—S. Kavruck.

4821. Landy, David. (U. Pittsburgh) **Man's adaptive processes: Cultural influences on behavioral change.** *Correct. Psychiat. J. soc. Ther.*, 1962, 8(2), 83-89.—Focuses attention on changing culture patterns resulting from environmental changes and pressures. It is noted that group integrity requires mechanisms of social control which are related to mechanisms for behavioral change.—L. R. Witt.

4822. Mundy-Castle, A. C., & Nelson, G. K. **A neuropsychological study of the Knysna forest workers.** *Psychol. Afr.*, 1962, 9, 240-272.—A neuropsychological test battery was administered to 80 white forest workers who lived in isolated communities. They performed poorly on tests of mental ability and showed a high incidence of EEG abnormalities. (51 ref.)—J. L. Walker.

4823. Murray, Henry A. (Ed.) (Harvard U.) **Myth and mythmaking.** *Daedalus*, 1959, 88(2), 211-380.—The entire issue is devoted to a collection of 11 papers by psychologists, anthropologists, literary critics, and folklorists who attempt to define "myth," to explore the implications of different definitions, and to raise questions concerning the existence and value of myths in the contemporary world. The papers likely to be of most interest to psychologists are H. A. Murray's introduction, C. Kluckhohn's "Recurrent Themes in Myths and Mythmaking," and J. S. Bruner's "Myth and Identity."—K. E. Davis.

4824. Ponzo, E. **Osservazioni in margine ad una spedizione italiana fra gli Indios Piaroa.** [Marginal observations of the Italian expedition to the Piaroa Indians.] *Riv. Psicol. soc.*, 1962, 29(1), 43-53.—Cultural, familial, and personality characteristics of Piaroa Indians were derived from observations and from their graphic expressions.—L. L'Abate.

4825. Ray-Chowdhury, K. (Muslim U., Aligarh, India) **Psychology and Gandhi's non-violent non-cooperation.** *Indian psychol. Bull.*, 1956, 1, 3-8. The statement that "frustration without aggression is a lost personality" is not applicable to Gandhi's case. The noncooperation of psychotics and of normals must be distinguished. It is suggested that failure to do so may be due to a neglect of Kropotkin's "mutual aid" principle and to an overemphasis on Darwin's approaches to the problem.—C. T. Morgan.

4826. Ray-Chowdhury, K. (Muslim U., Aligarh, India) **Allport-Vernon Study of Values (Old Form) in Indian situation: I. Religious group differences in values.** *Indian psychol. Bull.*, 1958, 3, 55-67.—2 groups of college women at Aligarh, one of Hindus (N=23) and the other of Muslims (N=57) were given an experimental version of the Allport-Vernon-Lindzey Study of Values (1951 edition). Statistical analysis indicated that (a) a significant difference exists between the groups in social, political, and religious values; (b) Muslim women showed greater interest in religious values whereas the Hindu women showed greater interest in social and political values. The sociocultural patterns of the highly cultured Hindus are much closer to the Anglo-Americans than those of the Muslims.—A. K. Ganguly & S. L. Mishra.

4827. Rosen, B. C. (U. Nebraska) **Socialization and achievement motivation in Brazil.** *Amer. sociol. Rev.*, 1962, 27(5), 612-624.—"This study examined the relationship of family structure to socialization and achievement motivation in Brazil. A Thematic Apperception Test was used to measure achievement motivation in boys; observation, interviews and questionnaires were employed to obtain data on family structure, child-rearing practices and the boy's perception of his parents. The Brazilian data were compared with those obtained from a criterion group of American boys and their mothers, matched by age and social class. The data revealed that Brazilian mothers were less likely to train their sons in self-reliance, autonomy, and achievement than were American mothers. This de-emphasis on independence and achievement was associated with a common type of family structure in Brazil—the authoritarian, father-dominated family. The indulgence, over-protectiveness, and authoritarianism which boys experience in this type of family were regarded as significant factors responsible for the markedly low achievement motivation among Brazilian boys."—L. Berkowitz.

4828. Turner, R. H. (U. California, Los Angeles) **The problems of social dimensions in personality.** *Pacific sociol. Rev.*, 1961, 4, 57-62.—In studies of the relation between culture and personality, an implicit assumption often made is that personality is a closed system. Hence studies are conducted on the distribution of standard personality types or variables between different cultures. A different approach would be to ask to what extent a particular dimension, such as ascendance-submission, is relevant to some cultures. Turner argues that we have usually failed to consider societies as agents which organize personality in different ways—some of which are idiosyncratic, hence noncomparable. Turner illustrates his approach by distinguishing 5 bases for personality classification and by designating some social sources of personality organization.—K. E. Davis.

4829. Wallace, Bruce. (Cornell U.) **"Race and Reason."** *Eugen. Quart.*, 1962, 9(3), 161-162.—In this critical letter to H. E. Garrett, the author lists numerous incorrect, tendentious, propagandistic, or misleading statements in *Race and Reason* by Carleton Putnam. Garrett was one of the signers of the introduction to this book.—S. G. Vandenberg.

SOCIAL STATUS & STRUCTURE

4830. Atherton, Karyl R. (U. California) **A comparison of solutions obtained in factor analyses of socioeconomic variables.** *Psychol. Rep.*, 1962, 11(1), 259-273.—"Socioeconomic data for a sample of the population of Berkeley, California (1929), were subjected to factor analysis and the results compared with those of previous factor analyses of similar variables in studies by Knupfer and by Kahl and Davis. The comparison revealed a marked consistency among the three solutions, all of them yielding two highly correlated factors of which one appears to relate to the acquisition of income and the other to its expenditure on housing and other durable goods. . . . A distinction was drawn between the effects of social mobility (with an attendant lag in residence change) and those of the ordinary phases

of the family life cycle. The latter alone were held to be sufficient to produce the two factors in terms of age variations within the usual sample."—B. J. House.

4831. Cook, David R. **Prestige of occupations in India.** *Psychol. Stud., Mysore*, 1962, 7(2), 31-37.—Occupations with high prestige in India (engineer, doctor, military officer) have in common high salary potential, advanced education, and high social status. These are followed by businessmen, farmers, factory workers, and manual and skilled laborers. For rural people experience and favorable connotations determine occupational prestige.—U. Pareek.

4832. Driver, Edwin D. (U. Massachusetts) **Caste and occupational structure in central India.** *Soc. Forces*, 1962, 41(1), 26-31.—Interview data support the view that the caste system does not prevent occupational mobility. Such change, however, is generally limited to occupations of comparable rank. A positive relationship is noted between educational and occupational levels.—A. R. Howard.

4833. Dye, T. R. (U. Pennsylvania) **Popular images of decision-making in suburban communities.** *Sociol. soc. Res.*, 1962, 47(1), 75-83.—Residents and elected public officials in 16 suburban communities in the Philadelphia Metropolitan Area were questioned to determine whether they perceive community decision-making in an elitist or a pluralist fashion. Interesting differences in perceptions were observed between public officials and residents, and between residents of communities with differing educational and occupational compositions.—*Journal abstract*.

4834. Gibbs, Jack P., & Martin, Walter T. (U. Texas) **Mortality rates and participation in sustenance activities.** *J. Hlth. hum. Behav.*, 1962, 3(2), 112-120.—International comparisons for 35 countries were made concerning the proportion of males (15 years and over) economically active in the population, and 2 measures of mortality: (a) average life expectancy at birth, and (b) infant mortality rate. It was hypothesized that the proportion of economically active would vary directly with the infant mortality rate, and the proportion of economically active would vary inversely with average life expectancy. Both were supported by correlations at the .01 level. Another hypothesis "to the extent that an age group is not physically fit for participation in the labor force there will be a direct relationship among societies between the per cent of the age group in the labor force and age-independent rates of mortality." This too was upheld. However, interpretation of these findings await subsequent research.—L. A. Ostlund.

4835. Jackson, Elton F. (Yale U.) **Status consistency and symptoms of stress.** *Amer. sociol. Rev.*, 1962, 27(4), 469-480.—"The stressful impact of status inconsistency on the individual is examined with national survey data, using psychophysiological symptoms as the indicator of psychological disturbance. Inconsistency due to racial-ethnic rank superior to occupational or educational rank is associated with high symptom levels; although the opposite patterns of inconsistency are not, they have been shown in previous research to be associated with political liberalism. These findings are interpreted to mean that all forms of status inconsistency are psy-

chologically disturbing, but that response to this stress varies with the relative positions of the inconsistent person's achieved and ascribed status ranks and with his achieved status per se. Also, sex appears to influence response to education-occupation inconsistencies. These findings provide support for a multidimensional view of social stratification."—L. Berkowitz.

4836. Kramer, Bernard. (Tufts U. Medical School, Boston) **Man in his social environment: Social structure and behavioral change.** *Correct. Psychiat. J. soc. Ther.*, 1962, 8(2), 75-82.—Ability to change human behavior through manipulation of the social environment is explored. The author concludes that the power to change behavior depends on knowledge of social-environmental factors in behavior, and effective leadership for implementation of ideas.—L. R. Witt.

4837. Mapes, R. E. A. (Oxford U., England) **The development of certain social variables in an English rural context.** *Rural Sociol.*, 1962, 27(2), 208-212.—In 22 villages in the Oxfordshire region, upper class incidence, sociability index, and reading factors were significantly related.—H. K. Moore.

4838. Muir, Donal E., & Weinstein, E. A. (U. Louisville) **The social debt: An investigation of lower-class and middle-class norms of social obligation.** *Amer. sociol. Rev.*, 1962, 27(4), 532-539.—Interviews were held with 120 white adult female residents of Louisville, ½ from lower socioeconomic status (SES) census tracts and the rest residing in upper-middle tracts, in order to test hypotheses, from Simmel and others, derived from economic models of social behavior. "Respondents from both areas seemed to account social obligations, felt that obligations should be voluntarily repaid where possible, and disapproved of debtors who did not do so. . . . Despite disapproval, however, low-SES respondents were unlikely to cut off social credit, while high-SES subjects were likely to do so. . . . high-SES subjects were likely to feel especially willing to do favors 'in return,' while the majority of low-SES respondents reported that this made no difference." The pattern of answers from the low-SES women is indicative of a "modified altruism, in that one gives when able, expecting others to do the same. . . . By contrast, the middle-class pattern more closely paralleled the financial transaction."—L. Berkowitz.

4839. O'Donovan, T. R. (U. Southern California) **Intergenerational educational mobility.** *Sociol. soc. Res.*, 1962, 47(1), 57-67.—In the literature there is no counterpart in the study of educational mobility modeled after the Warner and Abeglen study of American trends in intergenerational occupational mobility. Warner's research has shown that opportunities to rise from the bottom, occupationally, into positions of high leadership in business have widened during the past generation. This analysis attempts to provide a framework for the development of such a model in intergenerational educational mobility. (19 ref.)—*Journal abstract*.

4840. Robins, Lee N., Gyman, H., & O'Neal, P. (Washington U.) **The interaction of social class and deviant behavior.** *Amer. sociol. Rev.*, 1962, 27(4), 480-492.—"Sociologists in investigating the relationship between class and deviance, have almost

exclusively viewed class as the independent and deviance as the dependent variable. This paper, using intergenerational occupational mobility as a measure of class and juvenile anti-social behavior as a measure of deviance, offers evidence that deviance determines class. Former child guidance clinic patients seen for severe anti-social behavior are found 30 years later to have more unfavorable occupational mobility than both former patients seen for other problems and normal school children. Juvenile anti-social behavior appears to affect later occupational status by interfering with educational achievement and by continuation into adulthood, when expressed by poor job performance. The disproportionate incidence of anti-social children in the lower classes apparently can be partially explained by their high rate of anti-social fathers, whose own deviance has determined their low occupational status."—*L. Berkowitz.*

4841. Sadler, P. J. Technical change and military social structure. In Frank Geldard (Ed.), *Defence psychology* (see 37: 4053). Pp. 312-324.—The increasing technical complexity of weapons and associated equipment, the increased destructive power of weapons, the rapidity of technical change, and the greatly increased cost of military equipment have all contributed to changes in the military social structure. These changes have largely occurred in the military status system and in the basis and forms of authority. Problems created by these changes need sociological analysis to aid military management in their eventual resolution.—*G. H. Mowbray.*

4842. Simpson, Richard L. (U. North Carolina) Parental influence, anticipatory socialization, and social mobility. *Amer. sociol. Rev.*, 1962, 27(4), 517-522.—Questionnaire data from boys in 2 southern high schools were analyzed for factors influencing boys toward high occupational aspirations. "Among boys aspiring to high occupations, the percentage whose parents had advised them to enter professions was much higher than the percentage among low-aspirers," indicating that parental influence is a factor in the upward mobility of middle-class as well as lower-class boys. "Mobile working-class boys were much higher than nonmobile working-class boys and somewhat higher than unambitious middle-class boys in the percentage who said that they had middle-class friends," and also in the number of extracurricular clubs to which they belonged, indicating that "anticipatory socialization into middle-class values by middle-class peer groups helps to explain the upward mobility of working-class boys. . . . A working-class boy was most likely to aspire to a high-ranking occupation if he had been influenced in this direction by both parents and peers, and least likely to be a high-aspirer if he had been subjected to neither of these influences. Among the middle-class boys, only those low in both influences differed significantly from the rest."—*L. Berkowitz.*

4843. Thomas, R. Murray, & Surachmad, Winarno. Social-class differences in mothers' expectations for children in Indonesia. *J. soc. Psychol.*, 1962, 57(2), 303-307.—A comparison of child-raising practices of 100 upper-middle-class with 100 lower-class mothers in Bandung, Indonesia, showed upper-middle mothers expected earlier weaning, reading, and writing. Lower-class mothers expected earlier counting. Differences in expectation for un-

supervised play and for a child's feeding himself were not significant.—*Author abstract.*

4844. Upchurch, Harley M. (Louisiana State U.) A tentative approach to the study of mortality differentials between educational strata in the United States. *Rural Sociol.*, 1962, 27(2), 213-217.—The survival advantage of the college educated decreases in old age, while the survival advantage of the high school graduate increases. Explanations are suggested.—*H. K. Moore.*

ATTITUDES & OPINIONS

4845. Anisfeld, Moshe; Munoz, Stanley R., & Lambert, Wallace E. (McGill U.) The structure and dynamics of the ethnic attitudes of Jewish adolescents. *J. abnorm. soc. Psychol.*, 1963, 66(1), 31-66.—A factorial analysis was carried out on a variety of measures obtained from 100 Jewish high school students in Montreal. A general factor composed of negative attitudes to Jews and to gentiles, a hostile disposition to people, and verbal aggression against nonconformists was isolated. This factor, reflecting a generally negative social orientation, is independent of 2 other factors representing attitudes to parents and attitudes to self. The factorial structure suggests that manifest hostility is a possible mediating variable linking all 3 factors. (23 ref.)—*Journal abstract.*

4846. Brown, L. B., & Pallant, D. J. (U. Adelaide) Religious belief and social pressure. *Psychol. Rep.*, 1962, 10, 813-814.—Measures of religious belief were obtained from [25] adolescents under conditions of positive and negative social pressure. Positive pressure produced a significant change in stated beliefs towards an 'expert's' opinion, showing that religious beliefs are susceptible to social influences, as are attitudes and opinions.—*B. J. House.*

4847. Bull, Nina. The body and its mind: An introduction to attitude psychology. New York: Las Americas, 1962. 99 p. \$3.50.—Presentation of a theory and system which "is a modification and extension of James' Theory and rests on his main contention that feelings in emotion are the feelings of bodily changes which occur as a direct response to stimulation. . . . The bodily changes that lead to feeling in emotion are shown as due to the initial step in a response—that is, to a preparatory motor attitude—held up from going into action." Experimental results supporting the theory are presented from 2 series of experiments with hypnotic Ss, one based on 10 Ss in 60 sessions, the other involving 100 experiments employing 5 normal Ss.—*E. D. Lawson.*

4848. Christenson, Reo M., & McWilliams, Robert O. (Eds.) Voice of the people: Readings in public opinion and propaganda. New York: McGraw Hill, 1962. 585 p. \$4.95.—"There has long been a need . . . for a nontechnical book of readings on public opinion and propaganda designed to contribute broadly to students' liberal education." Sample chapter headings are "The Nature of Public Opinion," "The Mass Media: The Role of the Press," "The Tyranny of Majority Opinion," and "The Nature of Propaganda." The book contains 107 separate essays written by a variety of authors including Plato, Bertrand Russell, Walter Lippman, Adlai Stevenson, John Stuart Mill, Harold D. Lasswell, Paul Lazars-

field, Aldous Huxley, Richard Nixon, Vance Packard, and many others.—*W. Koppe.*

4849. Cole, D. L., Hartry, Arlene, & Brebner, Linda. Attitudes to Caryl Chessman as a function of his reprieve and execution. *J. soc. Psychol.*, 1962, 57(2), 471-475.—Item analysis of responses to a 32-item attitude scale reflecting attitudes toward Caryl Chessman revealed changes which seemed related to steps in the progress of his case. Following a last minute reprieve there was considerable diversity of change. Following his execution, all of the shifts in item endorsements appeared to be in the direction of justifying the execution.—*Author abstract.*

4850. Das, J. P., & Nanda, P. C. (Utkal U., Cuttack, India) Mediated transfer of attitudes. *J. abnorm. soc. Psychol.*, 1963, 66(1), 12-16.—Attitudes cannot only be acquired, but may also be transferred like verbal conditioned responses. This was shown by associating a nonsense syllable with the name of a tribe, then developing a favorable or unfavorable attitude towards the nonsense syllable and subsequently testing whether such an attitude had been transferred to the tribe. 2 nonsens syllables and 2 names of tribes were chosen as stimuli in a counter-balanced, sensory preconditioning design, requiring 4 groups of 20 Ss. A notable feature was the use of probability learning during the conditioning period; the probability of occurrence of Good or Bad after a nonsense syllable being .85. Transfer, which was successful, was tested in 2 ways: by requiring Ss to choose 10 out of a mixed list of 20 favorable and unfavorable attributes for each tribe and by rating each tribe on a semantic differential scale of Good-Bad.—*Journal abstract.*

4851. Diab, Lutfy N. (U. Beirut) National stereotypes and the "reference group" concept. *J. soc. Psychol.*, 1962, 57(2), 339-351.—The Katz and Braly technique was used in an investigation of the stability and generality of stereotypes assigned to 13 national groups by 106 male undergraduate Arab students at the American University of Beirut. The results showed that, in general, stereotypes attributed to various national groups tend to persist and change very little, if any, with the passage of time. However, the stereotyping of a particular national group was found to be, in part, a function of the respondent's "reference group" membership. Thus, significant differences in the stereotyping of certain national groups were found to exist between Arab Christians and Arab Moslems. Furthermore, the S's political group membership was also found to affect significantly the stereotypes he assigns to certain national groups.—*Author abstract.*

4852. Ex, J., & Bezembinder, T. G. G. Ervaring van overeenstemming en kijk op de ander. [Feeling of similarity and understanding the other.] *Gawein*, 1962, 11(1), 1-14.—The feeling of similarity in behavior, experienced by one person judging another, was handled as an independent variable in an experiment. The results proved the opinion formed was influenced by this experience and based on actual assumption of similarity between judge and S. However, accurate judging is not necessarily founded on empathy or assumed similarity. (English summary) —*J. A. Lückner.*

4853. Facen, Geneva. (Grambling Coll., La.) Determination of the degree of tension produced

in white students when presented with certain materials regarding Negroes. *J. educ. Res.*, 1962, 55(7), 307-311.—Scores on the Purdue scale, computed for attitude toward Negroes, formed the basis for the selection of the Ss to be observed. The major thesis was that tensions would be created during a discussion pertaining to Negroes. This assumption was based on the idea that different attitudes toward the Negro would produce varying degrees of tension, which could be objectively measured. 3 major aspects of the emotional tension reactions were taken into account: the skeletal or overt behavior, visceral behavior, and emotional experience. Observable tension was produced in white Ss when presented with certain unfounded beliefs and with factual materials pertaining to Negroes.—*F. Goldsmith.*

4854. Feshbach, S. (U. Pennsylvania) The consequences of fear-arousal in public health education. In G. Nielson (Ed.), *Proceedings of the XIV International Congress of Applied Psychology. Vol. 4. Clinical psychology* (see 37: 4119). Pp. 99-112.—Sources of interference with the acceptance of recommendations are named; the arousal of fear is also discussed. An experiment on dental hygiene utilizing 3 intensities of fear arousal is described. Greatest conformity accompanied lowest fear appeal, as did resistance to counterarguments a week later. Other studies are mentioned and discussed. It is concluded that fear is an unsatisfactory appeal.—*B. T. Jensen.*

4855. Francesco, E. (Middleton, Wis.) A pervasive value: Conventional religiosity. *J. soc. Psychol.*, 1962, 57(2), 467-470.—Conventional religiosity appears to be pervasively related to personality inventory scales. It is possible to view these relationships as an opportunity to understand types of individuals in terms of their personality characteristics. On the other hand, from a point of view of understanding behavior it may be convenient and important to stress the institutional bases of behavior. Knowing the religious orientation of a client, a clinician may be able to anticipate important sectors of personality concomitants. The findings on a relatively specific institutional orientation reported here suggest that investment in research on institutional value orientations and personality correlates may be extremely fruitful.—*Author abstract.*

4856. Glock, Charles Y. (U. California, Berkeley) On the study of religious commitment. *Relig. Educ.*, 1962, 57(4, Res. Suppl.), 98-110.—The identification of measurable dimensions in the analysis of religious commitment is discussed.—*S. A. Walters.*

4857. Goguel, C. Sur un essai d'application de la théorie des facettes de Guttman. [Essay on the application of Guttman's facet theory.] *Bull. Cent. Etud. Rech. Psychotech.*, 1961, 10(4), 445-454.—"This theory is aimed at predicting the structure of a correlation matrix made from attitudes scales taken by pairs. In this study attitudes towards the army are evaluated by the mean of four scales using four types of questions with a definite semantic structure: stereotypes, norms, assumed behavior, previous behavior. The coefficients obtained do not exactly reflect the expected structure; several explanations are given. A second exposition of the facets stresses the interest of using them to analyze a problem and write a questionnaire provided particular attention is given to the semantic structure of the questions."—*V. Sanua.*

4858. Gorfein, David S. (Utah State U.) **Phenomenal regression and the need for control groups in attitude change studies.** *Psychol. Rep.*, 1962, 11(1), 23-24.—Following an attitude test, 2 experimental groups received advocacy at a point either close to or distant from initial opinion, while a control group received no advocacy. Upon retest, attitude change of the control group was greater than the close, but less than the distant advocacy group. Results are discussed in relation to dissonance theory, and the suggestion made that "apparent effects of distance of advocacy may be due to a limitation on movement by the placement of the advocacy."—B. J. House.
4859. Grunberger, Béla. **Der Antisemit und der Ödipuskomplex.** [The anti-Semite and the Oedipus complex.] *Psyche, Stuttgart*, 1962, 16(5), 255-272.—The anti-Semite experiences the Jew as the bad father, and simultaneously as the castrated father. Thus he can abreact his unresolved Oedipal hostility toward the Jew and preserve a good father image. In the history of religion such an attitude toward the Jew may be linked with the Hebrew establishment of the father as divine figure out of the historically antecedent matriarchal worship.—E. W. Eng.
4860. Handlin, Oscar. (Ed.) **Ethnic groups in American life.** *Daedalus*, 1961, 90(2), 220-349.—Of the 7 papers devoted to the title's theme, the paper by Handlin is a brief historical introduction; those by Kenneth D. Benne ("The Uses of Fraternity"), J. Milton Yinger ("Social Forces Involved in Group Identification or Withdrawal"), Milton M. Gordon ("Assimilation in America: Theory and Reality"), and Joshua A. Fishman ("Childhood Indoctrination for Minority-Group Membership") are primarily integrative and analytic treatments of different aspects of minority-majority relations. The papers by Ozzie G. Simmons and by Peter H. and Alice S. Rossi are research reports, the former dealing with mutually-held stereotypes in a southern Texas border town and the latter with some effects of parochial-school education.—K. E. Davis.
4861. Haward, L. R. C. **Attitudes towards respiratory apparatus and their relation to stress reactivity.** *Brit. J. med. Psychol.*, 1962, 35(3), 225-232.—Responses to face masks were studied in relationship to previous experience with and experimentally induced changes in attitudes toward gas anaesthesia. Ss were 60 male psychoneurotic patients varying in age from 20 to 40 years. Experience and attitudes were related to responses. "The implications of these findings—in relation to studies of suggestibility in placebo-reactions and hypnosis—are discussed. A plea is made for greater insight into the meaning which any experimental situation has for the subject."—C. L. Winder.
4862. Hochheimer, Wolfgang. **Vorurteilsverminderung in der Erziehung und die Prophylaxe des Antisemitismus.** [Reducing prejudice through education and the prevention of anti-Semitism.] *Psyche, Stuttgart*, 1962, 16(5), 285-294.—If education is to effectively work against anti-Semitism, it cannot limit itself to methods that leave out the expression of feelings and emotions.—E. W. Eng.
4863. Keats, J. A. (U. Queensland) **Attitudes towards idealized types in Australia and Malaya.** *J. soc. Psychol.*, 1962, 57(2), 353-362.—Attitudes towards ideal types of persons, saints, scholars, artists, and heroes were assessed by rank order methods for Australian and Malayan Ss. The "unfolding" method provided a common space within which these 2 cultures could be compared. Perceptual distortion of Ss at different positions in this space was demonstrated.—*Author abstract.*
4864. Kelman, H. C. (Harvard U.) **The induction of action and attitude change.** In G. Nielson (Ed.), *Proceedings of the XIV International Congress of Applied Psychology. Vol. 2. Personality research* (see 37: 4117). Pp. 81-110.—5 hypotheses as to why induced action should lead to attitude change are presented and the matter discussed in Lewinian terms.—B. T. Jensen.
4865. Leary, T. (Harvard U.) **How to change behavior.** In G. Nielson (Ed.), *Proceedings of the XIV International Congress of Applied Psychology. Vol. 4. Clinical psychology* (see 37: 4119). Pp. 50-68.—Behavior is a game with roles, rules, etc. We play all kinds of games. Western and Eastern peoples have different understandings of the games of life. A study of 146 persons who used psilocybin is reported; 3 out of 4 reported happy and insightful reactions. It is suggested that new roles and rules could be taught when free of traditional limitations. The author describes an on-going experiment in rehabilitation of prisoners.—B. T. Jensen.
4866. Lindgren, Henry Clay. (San Francisco State Coll.) **Authoritarian, independence, and child-centered practices in education: A study of attitudes.** *Psychol. Rep.*, 1962, 10, 747-750.—"An analysis of the questionnaire responses of a sample of Laundromat customers [N = 150] showed significant and positive correlations among years of education completed and attitudes characterized by equalitarianism, independence, and acceptance of child-centered practices in education. Age was negatively correlated with these attitudes."—B. J. House.
4867. McCarthy, John, & Johnson, Ronald C. (San Jose State Coll.) **Interpretation to the "City Hall Riots" as a function of general dogmatism.** *Psychol. Rep.*, 1962, 11(1), 243-245.—"Two samples of Ss [157 students from two different colleges] indicated their attitudes regarding the causes of the "City Hall Riots" and were also administered Rokeach's dogmatism scale. Ss low in the dogmatism, as compared with the remainder of their sample, generally accepted the student account of the disturbance while Ss comparatively high in dogmatism more often accepted the police version of the events leading to the incident. Ss who were neutral in their opinions concerning the "Riots" fell between the other two groups in D score."—B. J. House.
4868. McNulty, John A., & Walters, Richard H. (U. Toronto, Canada) **Emotional arousal, conflict, and susceptibility to social influence.** *Canad. J. Psychol.*, 1962, 16(3), 211-220.—After completing an attitude inventory, electrodes were attached to S's wrist, forearm and neck for EMG and GSR recording, and he participated in a discussion with 2 confederates of the E. Ss who received anxiety-inducing instructions and were exposed to opinions that strongly conflicted with their own showed more muscle tension that did the others. They also revealed the greatest attitude change.—R. S. Davidson.

4869. Mitscherlich, Alexander. *Die Vorurteilsskrankheit: Einleitung zum Thema*. [Prejudice as illness: Introduction to the theme.] *Psyche, Stuttgart*, 1962, 16(5), 241-245.—Introduction to a symposium on the psychological and social conditions of anti-Semitism held at Wiesbaden on May 5, 1962 (see 37: 4859, 4862, 4878, 4880, 4881). Cultural control of aggression has had limited success. Prejudices, in this connection, can have contrasting kinds of effects; either for controlling aggression in the service of culture or decontrolling aggression in relation to imagined or actual enemies.—E. W. Eng.

4870. Morland, J. Kenneth. (Randolph-Macon Woman's Coll.) *Racial acceptance and preference of nursery school children in a southern city*. *Merrill-Palmer Quart.*, 1962, 8(4), 271-280.—Picture-choice data from 407 Negro and white nursery school children revealed few rejections and a high percentage of acceptance. Both Negro and white Ss tended to prefer the white children in the pictures, manifesting racial "bias" rather than prejudice. Age and social class differences were analyzed.—E. L. Robinson.

4871. Palmore, E. (Yale U.) *Sociologists' class origins and political ideologies*. *Sociol. soc. Res.*, 1962, 47(1), 45-50.—The class origins and political ideologies of sociology's founding fathers and of 405 modern sociologists are examined. It is found that the founders from the lower classes had leftist ideologies while those from the middle and upper classes had center or rightist ideologies. In contrast, modern sociologists from the lower classes vote Republican more often than those from the middle and upper classes. Possible explanations are discussed.—*Journal abstract*.

4872. Paul, B. D., Green, A. L., Simmel, Arnold; Kirscht, J. P., Knutson, A. L., Raulet, H. M., Sanders, I. T., Gamson, W. A., Irons, P. H., & Kegeles, S. S. *Trigger for community conflict: The case of fluoridation*. *J. soc. Issues*, 1961, 17(3).—This entire issue is devoted to an analysis of the psychological issues involved in community decisions about fluoridation. The content ranges from an attempt to identify characteristics of individuals who oppose or support programs of fluoridation to an attempt to isolate demographic variables that might differentiate among successful and unsuccessful attempts to institute fluoridation programs.—A. Barclay.

4873. Rao, N. C. S. *Factor analysis of social attitudes*. *Psychol. Stud., Mysore*, 1962, 7(2), 43-54.—A social attitude scale for conservatism-radicalism was constructed. The scale consists of 33 items and has a reliability coefficient of .90. Factor analysis with the centroid method with rotation gave 3 bipolar factors. 2 factors are identified as radicalism-conservatism and authoritarianism. The 3rd factor, consisting mostly of negative loadings, contributed only 6% to the total variance and its nature could not be clearly identified. The scale appears in the appendix.—U. Pareek.

4874. Rhyne, Edwin H. (Coll. William & Mary) *Racial prejudice and personality scales: An alternative approach*. *Soc. Forces*, 1962, 41(1), 44-53.—Questionnaire data from 325 college freshmen lend a greater degree of support to a sociological than to an "authoritarian personality" view of racial and ethnic prejudice. Despite expressed limitations, the

study favors a differential learning approach to the problem of individual variations in prejudice. Thus primary attention is directed to the structural situation in which prejudice emerges and away from an individualistic view.—A. R. Howard.

4875. Sartre, Jean-Paul. *Anti-Semite and Jew*. New York: Grove, 1962. 153 p. \$.50 (paper).—A paperback edition of a book published in 1948 under the title *Reflexions sur la Question Juive* (see 23: 4214).—C. T. Morgan.

4876. Schein, Edgar H. (Massachusetts Inst. Technology) *Man against man: Brainwashing*. *Correct. Psychiat. J. soc. Ther.*, 1962, 8(2), 90-97.—Description of the Chinese Communist methods of producing change in behavior and attitudes. Social support is viewed as the key factor in the attitude change process. That is, supports for old attitudes must be undermined, and supports for new attitudes must be introduced in order to make for lasting attitude change. The basic method of influence appears to be similar to that which is used in our own rehabilitative institutions, i.e., prisons and mental hospitals.—L. R. Witt.

4877. Schein, Edgar H., & Singer, Margaret T. (Massachusetts Inst. Technology) *Follow-up intelligence test data on prisoners repatriated from North Korea*. *Psychol. Rep.*, 1962, 11(1), 193-194.—"A sample of 60 repatriated prisoners of war from Korea were given the verbal scales of the Wechsler-Bellevue Adult Intelligence Scale I immediately after repatriation and again 3 to 5 yr. later. Differences found between alleged collaborators and non-collaborators at the time of first testing were smaller at the time of second testing, lending some support to the interpretation that the differences were due to situational factors rather than basic intelligence differences."—B. J. House.

4878. Silberman, Alphons. *Zur Soziologie des Antisemitismus*. [The sociology of anti-Semitism.] *Psyche, Stuttgart*, 1962, 16(5), 246-254.—The unsystematic character of research in anti-Semitism has contributed to its lack of social impact. In carrying out such research studies it is important to start from the specific manifestation of the anti-Semitism socially, then to develop an understanding of the prejudice in individual terms, and from this inferences about the anti-Semitic personality.—E. W. Eng.

4879. Tuddenham, Read D. (U. California, Berkeley) *Constancy of personal morale over a fifteen-year interval*. *Child Developm.*, 1962, 33(3), 663-673.—"Responses to a brief morale questionnaire showed a modest degree of temporal constancy across an interval of 15-plus years involving the age range from 18 years to 33 years. Items tapping attitudes toward education were most constant. . . . Opinions on other topics e.g., the fairness of the courts, the importance of the individual, etc., were less constant, yielding significant stability coefficients for one sex and not for the other. Items relating more to the individual . . . were notably lacking in temporal constancy. Sex differences were small. . . . There was a general tendency for adult judgments to be more homogeneous than was true for adolescents."—W. J. Meyer.

4880. von Baeyer-Katte, Wanda. *Nachträgliche Gedanken zu einem Symposium über die psychologischen und sozialen Voraussetzungen des Anti-*

semitismus. [After-thoughts to a symposium on the psychological and social presuppositions of anti-Semitism.] *Psyche, Stuttgart*, 1962, 16(5), 312-317.—The active anti-Semite must be seen in the context of a group. The young Nazi group sought to regressively reestablish the warm family group of which they had been deprived in early childhood. The actively anti-Semitic figure acted out their hostility for them, while at the same time certain other figures, "noble Nazis" to whom they looked up, served to mask from their awareness their participation in sadistic destruction.—E. W. Eng.

4881. Wangh, Martin. *Psychoanalytische Betrachtungen zur Dynamik und Genese des Verurteils, des Antisemitismus und des Nazismus*. [Psychoanalytic observations on the dynamics and development of prejudice, anti-Semitism and Nazism.] *Psyche, Stuttgart*, 1962, 16(5), 273-284.—Why did the young adults of the early Nazi period react to economic depression with regression, projection, and sadism? Hypothesis: a decisive predisposing factor lay in the personality effects of the 1st World War on the children of that period, as a consequence of paternal absence, increased maternal dependency, etc. Today an economic or social catastrophe could once more unleash such a massive regression among the war-disturbed young adults of Germany or other countries.—E. W. Eng.

4882. Winick, C. (Columbia U.) Space jokes as indications of attitudes toward space. *J. soc. Issues*, 1961, 27(2), 43-49.—An analysis of space jokes indicated that this form of humor can be seen as an attempt to assimilate the space phenomena into our own cultural frame of reference and perhaps to minimize the latent anxiety inherent in explorations of the unknown.—A. Barclay.

GROUP INFLUENCES

4883. Borah, Lee A., Jr. (Wagner Coll.) The effects of threat in bargaining: Critical and experimental analysis. *J. abnorm. soc. Psychol.*, 1963, 66(1), 37-44.—A 1st experiment replicated the main result of the Deutsch and Krauss experiment which showed that the presence of barriers in the bargaining situation led to poorer outcomes for the players. It also indicated, however, that the main results obtained by Deutsch and Krauss and the similar ones found in the present experiment are probably due to the spurious effect of the length of the longer pathway and the lack of comparability between conditions. In a 2nd experiment, the introduction of electric shock—whether given no interpretation, interpreted as a means of coercing the other to yield, or interpreted as a means of threatening future unpleasantness—did not significantly change the outcomes for the bargainers.—*Journal abstract*.

4884. Maisonneuve, Jean. *L'élaboration des sociogrammes individuels et l'analyse dyadique*. [The elaboration of individual sociograms and dyadic analysis.] *Psychol. Franc.*, 1962, 7(2), 156-160.—A new method of analysis is discussed.—C. J. Adkins.

4885. Mills, T. M. (Yale U.) A sleeper variable in small group research: The experimenter. *Pacific sociol. Rev.*, 1962, 5(1), 21-28.—Mills argued that the role of E and his relation to his Ss has seldom been considered in small group research and that this omission has led to inadequate analysis of the experi-

mental setting and faulty interpretations of data. The failure of the E to consider his effects on his results derives from 2 sources: (a) a defensive attempt to minimize his ignorance vis-a-vis the complex processes of social interaction and (b) a defensive attempt to minimize his own uncertainty about his adequacy as an E. To provide a concrete example, Mills reanalyzed Schachter's study, "Deviation, Rejection, and Communication" (see 25: 8043) and suggested that the data could be interpreted by assuming that the E had differentially violated group norms in different experimental conditions.—K. E. Davis.

4886. Moore, Omar K., & Anderson, Alan R. (Yale U.) Some puzzling aspects of social interaction. *Rev. Metaphys.*, 1962, 15, 409-433.—Certain activities referred to as "autotelic" are undertaken by human beings solely for fun. These fall into 2 categories: (a) puzzles, which are probabilistic and noninteractional and (b) games, which are interactional, strategic, and applicable to game theory. Neither applies to the constant changes in human interactions. Instead of attempting to predict and control human behavior through experiments dealing with artificially separated, minute aspects of behavior, "folk-model" type experimental situations should be set up in which actual creativity and inventiveness can be developed. (34 ref.)—L. W. Brandt.

4887. Penny, R., & Robertson, L. (U. Adelaide) The Homans sentiment/interaction hypothesis. *Psychol. Rep.*, 1962, 11(1), 257-258.—"Homans' hypothesis concerning the relationship between sentiment and interaction is confirmed by small groups experiment with previously unacquainted Ss who were concealed from one another and for whom communication was restricted to brief written messages."—B. J. House.

4888. Shaw, Marvin E. (U. Florida) Implicit conversion of fate control in dyadic interaction. *Psychol. Rep.*, 1962, 10, 758.—In a 2-S, 2-choice situation, responses of each S determined the rewards of the other. Of 5 dyads instructed to cooperate, all 5 stabilized responding on high outcome alternatives, while of 18 given no instructions, 2 dyads stabilized on high outcome, 7 on low outcome responses, and 9 failed to stabilize.—B. J. House.

4889. Shaw, Marvin E., & Shaw, Lilly May. (U. Florida) Some effects of sociometric grouping upon learning in a second grade classroom. *J. soc. Psychol.*, 1962, 57(2), 453-458.—This study investigated the relationship between sociometric structure (cohesiveness) of 3-person groups and learning to spell in a 2nd-grade class. 6 groups were tested 8 times on 4 different word lists and in 4 different sociometric structures. The results indicated that high cohesive groups are more democratic, friendly, and cooperative than are low cohesive groups. Learning to spell correlated positively with cohesiveness in the early phases of interaction, but not in later phases.—*Author abstract*.

LEADERSHIP

4890. Elkin, Frederick; Halpern, Gerald, & Cooper, Anthony. (McGill U., Canada) Leadership in a student mob. *Canad. J. Psychol.*, 1962, 16(3), 199-201.—Fraternity pledges were observed in 2 situations leading to mob action. Of 20, the 5 who demonstrated leadership in the contrived situa-

tion were among the 6 leaders in an episode at a football game. Given a Gordon Personal Profile, mob leaders scored higher than followers on ascendancy and sociability and lower on emotional stability.—*R. S. Davidson.*

4891. Lange, Carl J. **Leadership in small military units: Some recent research findings.** In Frank Geldard (Ed.), *Defence psychology* (see 37: 4053). Pp. 286-301.—Several research studies dealing with the leadership process in small military units are described, and an outline is provided of a way of thinking about such problems. The results indicate that the leader plays an active part in facilitating performance and in reducing disruptive influences. A leadership training program was evolved that takes these findings into account.—*G. H. Mowbray.*

4892. Palmer, George J. (Louisiana State U.) **Task ability and effective leadership.** *Psychol. Rep.*, 1962, 10, 863-866.—"Sixteen male students took a 40-item multiple-choice examination for course credit. The examination was taken, first by each privately, then by consenses of four-man groups, then again privately by each student. Task ability was found to account for an average of 88% of the variance in effective leadership, thus supporting the hypothesis as to the significance of task ability for effective leadership."—*B. J. House.*

4893. Prentice, W. C. H. (Swarthmore Coll.) **Understanding leadership.** *Harv. bus. Rev.*, 1961, 39(5), 143-151.—A leader must accomplish a group goal by providing some direction to his human assistants, the group members. He must help each to see how a personal motive can be satisfied in the process of reaching the group goal. Some of the pitfalls in leader-follower relationships are explained.—*C. F. X. Youngberg.*

LANGUAGE & COMMUNICATION

4894. Bialek, Hilton M., Walker, Jerald N., & Hood, Joanne H. **Exploratory efforts concerned with a study of the interrogation process: Survey activities, conceptualization and pilot studies.** *HumRRRO res. Memo.*, 1962, Task Quiz. 21 p.—A survey of interrogation literature and practices was background for a pilot study showing that information obtained, Ss' reactions, and resistance can be quantified.—*R. Tyson.*

4895. Doob, Leonard W. **Communication in Africa: A search for boundaries.** New Haven, Conn: Yale Univer. Press, 1961. xvi, 406 p. \$7.50.—12 critical variables that affect communication are analyzed and illustrated by reference to sub-Saharan African societies: the communicator; his goal, the basic and extended media; the site; the restrictions; the communication itself; the mood, perception, reaction and behavior changes of the audience; and the effect of communication as perceived by the communicator.—*C. W. Page.*

4896. Novaes, Maria Helena. **Problemas de linguagem e comunicação.** [Problems of speech and communication.] *Arqu. Brasil. Psicotec.*, 1961, 13 (2), 13-19.

4897. Newbigging, P. L., & Hay, Janet M. (McMaster U., Canada) **The practice effect in recognition threshold determinations as a function of word frequency and length.** *Canad. J. Psychol.*,

1962, 16(3), 177-184.—Visual duration thresholds decreased with practice, an effect related to both the frequency and the length of the stimulus words. Thresholds for less frequent and long words showed the greatest decrement as a function of serial position. The results are consistent with an associative interpretation and inconsistent with one in terms of improved discrimination.—*R. S. Davidson.*

4898. Rosenzweig, Mark R., & McNeill, David. (U. California, Berkeley) **Inaccuracies in the semantic count of Lorge and Thorndike.** *Amer. J. Psychol.*, 1962, 75(2), 316-319.—A comparison of data from 4 publications (Lorge & Thorndike, Thorndike & Lorge, Lorge, & West) discloses many discrepancies and errors. Size of sample for the count is given variously in the different publications. The value given for a word in Thorndike and Lorge is sometimes greater than and sometimes less than that given by the other sources. A comparison of West with Thorndike and Lorge revealed a median difference in frequency of about 9% based on a sample of 54 words.—*R. D. Nance.*

Speech & Linguistics

4899. Delattre, Pierre. (U. Colorado) **Some factors of vowel duration and their cross-linguistic validity.** *J. Acoust. Soc. Amer.*, 1962, 34(8), 1141-1143.—"New facts and new arguments are furnished which reinforce the theory according to which: (a) many variations in vowel duration are physiologically conditioned, (b) and those variations that are conditioned, and not phonemically learned, are due to factors that are cross-linguistically valid."—*A. M. Small, Jr.*

4900. Floyd, Richard L. (U. Minnesota) **Semantic satiation: Replication and test of further implications.** *Psychol. Rep.*, 1962, 11(1), 274.—Doubtful support was found for a finding by Lambert and Jakobovits (see 35: 4474) that words repeatedly emitted suffer a "loss of meaning" as measured by pre- and post-test semantic differential ratings. There was no generalized satiation of semantically similar words.—*B. J. House.*

4901. Fulton, Robert T., & Spuehler, Henry E. (Purdue U. Speech & Hearing Clinic) **Effects of frequency filtering and delayed sidetone on vocal responses.** *J. speech hear. Res.*, 1962, 5(4), 382-386.—25 normal hearing college students were subjected to 15 conditions of sidetone varied by means of combinations of 5-band pass frequency filtering and 3 delayed sidetone conditions. Words per minute are more affected by delay conditions than are phonation-time ratios. Words per minute differ only with combinations of conditions employing delays.—*M. F. Palmer.*

4902. Glanzer, Murray. (School Medicine, U. Maryland) **Toward a psychology of language structure.** *J. speech hear. Res.*, 1962, 5(4), 303-314.—Recent linguistic work has been outlining a simple and orderly grammatical structure for language and has stimulated experimental work necessary for the construction of a general theory. 2 aspects of language that are considered are: (a) the rules, structures, and transformations that make up the syntax and, (b) the classes of items that the syntax orders. Such grammatical linguistics present a basis for psychological experimentation and the de-

scription and analysis of children's early word combinations, the tracing of changes in verbal performance, and the demonstration and analysis of the effects of grammatical categories on adult verbal performance.—*M. F. Palmer.*

4903. Harms, L. S. (Louisiana State U.) **Listener comprehension of speakers of three status groups.** *Lang. Speech*, 1961, 4(2), 109-112.—"Listeners of 3 [social] statuses attempt to reconstruct spoken messages of speakers of 3 statuses. Speakers of high status were most comprehensible. However, listeners achieved highest relative comprehension when speaker and listener status coincided."—*A. E. Horowitz.*

4904. Hedman, Charles R. **Design for interaction analysis in the classroom.** *N. Mex. Soc. Stud. Educ. educ. res. Bull.*, 1962, No. 1, 4-5.—A condensed report on applying interaction analysis to the study of pupil and teacher verbal behavior. The resulting matrices are compared by the Darwin Analysis which is based upon the likelihood ratio criterion:

$$\frac{2(\sum_{jk} \log_e n_{jk1} - \sum_{jk} \log_e n_{jk} + \sum_{jk} \log_e n_{jk} - \sum_{jk} \log_e n_{jk})}{\sum_{jk} \log_e n_{jk} + \sum_{jk} \log_e n_{jk}}$$

—*J. G. Cooper.*

4905. Horton, David L., Marlowe, David, & Crowne, Douglas P. (U. Kentucky) **The effect of instructional set and need for social approval on commonality of word association responses.** *J. abnorm. soc. Psychol.*, 1963, 66(1), 67-72.—This study investigated the effect of various instructional sets (speed, relaxed time instructions, and "set popular" instructions) on commonality of word associations. Findings were generally supportive of the hypotheses: significantly more common associations were given under speed as compared to relaxed instructions, Ss were able to significantly increase their commonality scores under a set to give popular responses, and need for social approval was differentially related to commonality under relaxed but not under speed instructions. Contrary to a suggestion of Jenkins, social sensitivity (as reflected in the need for approval measure) was not related to the ability to increase one's commonality score under "set popular" instructions. (17 ref.)—*Journal abstract.*

4906. Manley, Harold J. (Sylvania Electric Products, Waltham, Mass.) **Fourier coefficients of speech power spectra as measured by autocorrelational analysis.** *J. Acoust. Soc. Amer.*, 1962, 34(8), 1143-1145.—"Time-domain speech processors, that analyze the short-time autocorrelation function in terms of a set of orthogonal functions, are shown to yield parameters that are the coefficients of a generalized Fourier cosine series representation of the speech power spectrum."—*A. M. Small, Jr.*

4907. Maussen, L. H. M. **Taal en gesticiek.** [Language and gesticulation.] *Gawein*, 1962, 11(1), 15-47.—Verbal fluency appears related to variety of gestures (correlation coefficient 0.49 ± 0.28). S's amount of inner feelings, intellectuality, attitude towards himself in a certain situation, and his opinion of the person(s) he was talking to appeared to be very important factors.—*J. A. Lucker.*

4908. Olson, Harry F., Belar, Herbert, & de Sobrino, Ricardo. (RCA Lab. Princeton, N. J.) **Demonstration of a speech processing system con-**

sisting of a speech analyzer, translator, typer, and synthesizer. *J. Acoust. Soc. Amer.*, 1962 34(10), 1535-1538.—A public demonstration of a rudimentary speech-processing system consisting of a speech analyzer, language translator, type decoder, and speech synthesizer has been made. Each word spoken into the microphone was analyzed, converted to a syllable code, transmitted as a syllable code, synthesized to speech, or converted to the typed page either in the same language or other languages. The 2 language inputs were English and French, the synthesized speech outputs were English, French, and Spanish and the typed outputs were English, French, German, and Spanish.—*A. M. Small, Jr.*

4909. Rosenzweig, Mark R., & McNeill, David. (U. California, Berkeley) **Uses of the semantic count in experimental studies of verbal behavior.** *Amer. J. Psychol.*, 1962, 75(3), 492-495.—It is helpful to know how usage of a word is apportioned among its various meanings. The semantic count by Lorge and Thorndike in the 1930's is of limited practical use. A simplified abridgement by West is illustrated together with ways in which it may be used. It is demonstrated that a word presented in isolation is usually taken in the sense of its predominant meaning.—*R. D. Nance.*

4910. Saporta, Sol. (Ed.) (Indiana U.) **Psycholinguistics: A book of readings.** New York: Holt, Rinehart & Winston, 1961. xv, 551 p. \$7.50.—A set of 44 readings is offered to fulfil the purpose of facilitating "interdisciplinary communication by providing students of language with materials dealing with a variety of problems where collaboration between psychologists and linguists promises to be fruitful." The readings are organized into 8 categories: "The Nature and Function of Language," "Approaches to the Study of Language," "Speech Perception," "The Sequential Organization of Linguistic Events," "The Semantic Aspects of Linguistic Events," "Language Acquisition, Bilingualism, and Language Change," "Pathologies of Linguistic Behavior," and "Linguistic Relativity and the Relation of Linguistic Processes to Perception and Cognition."—*C. J. Adkins.*

4911. Szalay, Loránd. (Psychologisches Inst., U. Wien) **Untersuchungen zur semantischen Struktur der Zeitwörter.** [Investigations of the semantic structure of verbs.] *Z. exp. angew. Psychol.*, 1962, 9(1), 140-163.—20 psychology and German majors evaluated 160 verbs according to 15 categories. Word profiles and type profiles were constructed based on these judgments. The results indicated that verbs not only carry a particular meaning, that is, express specific characteristics in varying degrees of intensity, but that they determine also the relationship of the sentence elements to each other and influence their meaning.—*W. J. Koppitz.*

4912. Walters, Richard H., & Henning, G. Bruce. (U. Toronto, Canada) **Social isolation, effect of instructions, and verbal behaviour.** *Canad. J. Psychol.*, 1962, 16(3), 202-210.—High school boys, who volunteered to serve in an experiment on "Speaking ability and time judgments," spoke extemporaneously before and after a 3- or 6-hour period of either social isolation or interaction. Isolation had no consistent effect on rate of speech or number of affiliative statements during the final

speeches. Ego-oriented instruction led to more rapid speech and more affiliative statements than the task-oriented one.—*R. S. Davidson.*

4913. Winitz, Harris, & Bellerose, Betty. (U. Kansas) Sound discrimination as a function of pretraining conditions. *J. speech hear. Res.*, 1962, 5(4), 340-348.—Discrimination learning of 72 4th-grade children was studied as a function of 3 pretraining conditions: correct reinforcement, incorrect reinforcement, and no reinforcement. The learning involved a 2-bar successive discrimination of the [ʒa] and [çə] sounds. No evidence was obtained that discrimination was reduced following incorrect reinforcement. Ss assigned to the pretraining condition of incorrect reinforcement continued to utter the incorrect response when it was reinforced. Learning models appear to have implications for both teaching and understanding of articulatory modification.—*M. F. Palmer.*

Mass Communication

4914. Wertham, Fredric. (Queens Hosp. Cent., N. Y.) The scientific study of mass media effects. *Amer. J. Psychiat.*, 1962, 119(4), 306-311.—A number of recent books on the effect of mass media violence on children are criticized for concluding that there are no harmful consequences. From clinical evidence on over 200 cases, the author argues that "our younger generation is getting more and more teledirected," a prediction he says he made 15 years ago.—*N. H. Pronko.*

ESTHETICS

4915. Bloomsiter, Paul C., & Creel, Warren. (State University Coll., Albany, N. Y.) Ratio relationships in melody. *J. Acoust. Soc. Amer.*, 1962, 34(9, Pt. 1), 1276-1277.—"Forced choice between the tempered scale and one of the just scales in an atypical melody does not provide an adequate test of tuning preferences. Experiments by other methods indicate that small whole number ratios do operate in melody."—*A. M. Small, Jr.*

4916. Butch, Charles, & Fischer, Hardi. (Zürich, Switzerland) Der "Music Preference Test" im entwicklungspsychologischen Verlauf. [The Music Preference Test in developmental psychology sequence.] *Schweiz. Z. Psychol. Anwend.*, 1961, 20(4), 317-328.—Cattell's Music Preference Test of Personality was administered to 917 Swiss youths between ages 10 and 21; 528 were male and 389 were female. Results are presented in graphic form according to age, sex, and personality factors. Conclusions are drawn regarding: (a) the variations of factor loadings over the period studied; (b) the degree of agreement between the meaning of factors, as postulated by Cattell, and prior statements of developmental psychology; and (c) the usefulness of music factors, including their definitions, for local conditions in Switzerland. (English summary)—*J. W. House.*

4917. Churcher, B. G. (Bowden, Cheshire, England) Calculation of loudness levels for musical sounds. *J. Acoust. Soc. Amer.*, 1962, 34(10), 1634-1642.—"The application to organ tones or other sustained musical sounds of the Stevens and the Zwicker methods for loudness-level calculation from observed sound spectra is examined. It is found that both

methods, although developed for dealing with noise of the continuous spectrum type, are applicable to organ tones, a particular class of discrete component sound, subject to the use in both methods of accepted equal-loudness contours."—*A. M. Small, Jr.*

4918. Kepes, Gyorgy. (Ed.) The visual arts today. *Daedalus*, 1960, 89(1), 1-268.—A special issue which contains personal statements by artists on their work and motives for working, and commentaries by philosophers, art historians and critics, and psychologists on the status of the visual arts and on various practical and esthetic issues. The commentaries of most interest to students of the psychology of aesthetics are: Paul Weiss, "Organic Form: Scientific and Aesthetic Aspects"; Andreas Speiser, "Symmetry in Science and Art"; Rudolf Wittower, "The Changing Concept of Proportion"; J. J. Gibson, "Pictures, Perspective, and Perception"; and E. H. Gombrich, "On Physiognomic Perception."—*K. E. Davis.*

4919. Kolb, H. (Psychological Inst., U. Würzburg, Germany) Dimensionen der Beurteilung von Illustrierten-Titelbildern. [Dimensions of judgments from illustrated and captioned pictures.] *Psychol. u. Praxis*, 1962, 6(3), 97-107.—30 women between ages 18 and 30 ranked captioned illustrated pictures under previously determined adjectival descriptions. Correlations ranged from .17 to .70 between judges' rankings of the 13 descriptions. Rank order correlations between the adjectival descriptions were also calculated. Thurstone's multiple-factor analysis identified (a) greatness and glamour, (b) amusing and pleasant, (c) commonplace, (d) elegant, and (e) nature loving, as important factors.—*H. Roemmich.*

4920. Meyer, Max F. (5308 Danville, Springfield, Va.) Listeners can be seduced to perceive the paradoxical ratio 51:87 as either one or another truly melodic interval. *J. Acoust. Soc. Amer.*, 1962, 34(9, Pt. 1), 1277.—"The ratio 51:87 (1.706), musically paradoxical, is found to be interpreted as 4:7 when surrounded by the terms 63, 76, and 101; and interpreted as 3:5 when surrounded by the terms 34 and 68."—*A. M. Small, Jr.*

4921. Munro, Thomas. What causes creative epochs in the arts? *J. Aesthet. art Crit.*, 1962, 21(1), 35-48.—The author concludes that there must be: "(a) innately potential geniuses; (b) materials and conditions adequate to implement and channel their voluntary energies into some artistic medium; (c) institutions capable of giving them technical training and some knowledge of their own artistic heritage; and (d) other persons with taste, power, and will to appreciate artistic merit and help to give it wider recognition."—*P. R. Farnsworth.*

4922. Stuart, I. R., & Eliasberg, W. G. (Hunter Coll.) Personality structures which reject the human form in art: An exploratory study of cross-cultural perceptions of the nude. *J. soc. Psychol.*, 1962, 57(2), 383-398.—In continuing to validate a series of postulates as to what constitutes pornography in visual or literary art today, with the purpose of constructing a valid instrument for making judgments, a cross-cultural study of the effects of a Latin culture on the selective perceptions of 148 male and female Ss attending the University of Havana was made. The correlation between rigidity

of personality structure as indicated on their F scale scores, and their judgments of a series of nudes accepted as works of great art, was not significant. This contrasted with the results of a study of American students. Reasons given for making a judgment of a picture were similar to American Ss. Categories defining pornography in literature and visual art were again validated.—*Author abstract.*

PERSONALITY & ABILITIES

4923. Cardno, J. A. (U. Tasmania) **Personality and self: Lewes and James.** *Psychol. Rec.*, 1962, 12(1), 45-52.—In the 2 standard bibliographies dealing with 19th-century writings on personality and self, W. James is mentioned and George A. Lewes is not. James has been renowned and Lewes almost forgotten. A long overdue reevaluation of Lewes' work, using Allport's definition of personality as a point of departure, points to a distinct underevaluation of Lewes. This view is seen as substantiated "in so far as structured impression and appraisal of a literary kind will admit."—*R. J. Seidel.*

4924. Humphreys, Lloyd G. (U. Illinois) **The organization of human abilities.** *Amer. Psychologist*, 1962, 17(7), 475-483.—There are "two unfortunate tendencies in recent work on human abilities: the proliferation of factors and the tendency to think of only the first-order factors as the primary ones. An alternative model is to place factors in hierarchical order as advocated by the British psychometricians, especially Vernon. The application of the hierarchical model to a logical hierarchy of possible tests of mechanical information is presented, some hypothetical correlations are factored in several orders, and the Schmid-Leiman transformation is used to convert the factors back into a single orthogonal matrix manifesting the hierarchical principle. Facet analysis would enable one to define a population of tests . . . [and] helps restate the need for homogeneity in a test."—*S. J. Lachman.*

4925. Kelly, G. A. (Ohio State U.) **The abstraction of human processes.** In G. Nielson (Ed.), *Proceedings of the XIV International Congress of Applied Psychology. Vol. 2. Personality research* (see 37: 4117). Pp. 220-229.—"Whatever channels of movement are expressed in a person's life, no matter how subtly, these are his personal constructs." They define the matrix to use in understanding personality.—*B. T. Jensen.*

4926. Koppe, W. A. **Social resources for character growth: A research progress report.** *Charact. Potential*, 1962, 1(1), 29-44.—Longitudinal research with parents and children who are making a creative effort to learn character and religious attitudes revealed that children actively search among their social resources for cues that contribute to their decisions and purposes. 5 general propositions concerning the individual's perception and use of his social resources emerged from the data. The advantages of longitudinal research based on open-ended responses of children, parents, and teachers are discussed and illustrations of some of the observations are given. The values of this approach for religious and character education are indicated.—*W. T. Penrod.*

4927. Kuppuswamy, B. **Bhagavad-Gita and mental health.** *Pratibha*, 1959, 2(1), 107-111.—There is a shift in the interpretation of Gita from renunciation to action. According to Gita the integrated personality is one who can find comfort in himself, and this is possible only when emotional stability is achieved. The characteristics of an integrated personality are: finding comfort for oneself in oneself; untroubled in sorrows and not longing for joys; freedom from desire, fear, and wrath; and removal of the motive of fruit-of-action. Self-control is given great importance.—*U. Pareek.*

4928. Ligon, E. M. **The tools for insight.** *Charact. Potential*, 1962, 1(1), 3-28.—27 years of research in character development have led to the formulation of 6 concepts—3 of personality and 3 of research design—which have proven to be fruitful in the search for the moral and spiritual potential of man. These concepts are related to the design of a family research workshop.—*W. T. Penrod.*

4929. Rao, B. S. Sridhara Rama, & Rao, S. K. Ramachandra. **The problem of individual differences.** *Pratibha*, 1959, 2(1), 124-125.—"The nature and extent of individual variation within the group and the significance of individual differences need to be unraveled, and the twin disciplines of psychodynamics and psychogenetics provide the hope in this direction." The findings of psychogenetics indicate need for intensive studies on personality development and its breakdown in various types of cultural environments: the hierarchy of integrative processes and the systems of stress in culturally influenced human variation.—*U. Pareek.*

4930. Simoes, Ruth Scheeffer. **Teoria de Carl Rogers sobre a personalidade e o comportamento.** [Carl Rogers theory of personality and behavior.] *Arqu. Brasil. Psicotec.*, 1960, 12(3), 65-70.

4931. Skawran, P. R. **Hayman's concept of primary and secondary function as a means of classifying temperaments.** *Psychol. Afr.*, 1962, 9, 119-132.—The concept of primary and secondary function as a means of classifying temperament is discussed. Heymans' concept is charted by personality, character, temperament, intellect, attention, and effect on the emotions. "A cognitive function cannot be accepted as basic factor for the classification of temperaments." It is necessary to arrive at a theory of temperaments. (32 ref.)—*J. L. Walker.*

4932. Wishner, J. (U. Pennsylvania) **Efficiency: Concept and measurement.** In G. Nielson (Ed.), *Proceedings of the XIV International Congress of Applied Psychology. Vol. 2. Personality research.* (see 37: 4117). Pp. 161-187.—Efficiency is defined as a function of focused to diffuse behavior. Several relevant experiments are described. Efficiency could be a useful concept in personality study. (37 ref.)—*B. T. Jensen.*

NEW TESTS & TEST CONSTRUCTION

4933. Ammons, R. B., & Ammons, C. H. (Psychological Test Specialists, Missoula, Mont.) **Quick Test.** Missoula, Mont.: Psychological Test Specialists, 1962. \$8.00.—A very brief, standardized, individual intelligence test in 3 forms. It takes 10 minutes or less to administer, covers a range from 2 years to superior-adult levels, and can be used with

nonreaders and the physically handicapped as well as normals.—*E. L. Borrowman.*

4934. **Hanley, Charles.** (Michigan State U.) The "difficulty" of a personality inventory item. *Educ. psychol. Measmt.*, 1962, 22(3), 577-584.—MMPI items were reordered into a 5-page booklet. The 1st page contained instructions and 11 items. The other 4 pages were randomly assembled containing short items, standard-long items, short-controversial, or long-controversial items. The protocols of 72 women psychology students were used. By using response latency and posttest confidence judgments as indices of difficulty, data were obtained showing controversial items to be more difficult than standard items. Items answered nearly equally true or false by the standardization sample were considered to be controversial.—*W. Coleman.*

4935. **Longano, Alfred A., Cannon, L. Dennis, & Olson, Howard C.** SPANCON: Span of control. 1. Development of a knowledge-free span of control test. *HumRRO res. Memo.*, 1962, Subtask Spancon II, Task 11-28. ii, 51 p.—Apparatus and methods were developed to determine capacity for dealing with "the volume and character of the information which make up a particular situation." Appendices present construction and operation of the test, test manual, and test items grouped by factors.—*R. Tyson.*

4936. **Myers, Charles T.** (Educational Testing Service) The relationship between item difficulty and test validity and reliability. *Educ. psychol. Measmt.*, 1962, 22(3), 565-571.—Using items of relatively homogeneous difficulty did not yield higher validity coefficients than those obtained from tests with a greater range of item difficulty. Mean item difficulty was about the same. Tests containing more uniform items (in difficulty) were found to be more reliable although they were not homogeneous factorially.—*W. Coleman.*

4937. **Owens, William A.** (Purdue U.) Retest consistency and the writing of life history items: A first step. *J. appl. Psychol.*, 1962, 46(5), 329-331.—Retest consistency was employed as a criterion for the evaluation of life history items, and rules for item writing or selection such that this criterion may be better satisfied were suggested. The method employed required: an inspection of consistent and inconsistent items with a view to deriving rules, and the "blind" sorting of these items in accordance with a given rule by 5 independent judges to determine the coincidence of rule conformity with retest consistency. 4 rules satisfied a statistical criterion of significant association. These deal with brevity, with the definition of options, with the undesirability of "forcing," and with the pleasant or unpleasant implications of a response for the respondent.—*Journal abstract.*

4938. **Roberts, A. O. H.** The maximum reliability of a multiple-choice test. *Psychol. Afr.*, 1962, 9, 286-293.—"Starting with Horst's equation giving the maximum possible correlation between two multiple-choice tests, equations were derived which give the maximum possible reliability for a multiple-choice test with various distributions of difficulties. These equations reflect the dependence of reliability upon (1) average difficulty of items, (2) number of choices, and (3) length of test. In addition, a theoretical basis was established for Remmer's empiri-

cally-based observation that the increase in reliability due to an increase in the number of choices can be predicted fairly accurately, using the Spearman-Brown formula."—*J. L. Walker.*

4939. **Sastry, M. N. C., & Kasturi, H. Y.** (All-India Inst. Mental Health) Change of mental set in normals and mental patients. *Trans. All-India Inst. Ment. Hlth.*, 1961, 2, 70-77.—A simple arithmetic test consisting of 2 parts of 100 items each was constructed. Each part contained 25 items on addition, 25 on subtraction, 25 on multiplication, and 25 on division. Each item of one part had a corresponding item in the other part in terms of the nature of the problem and the difficulty level. In the 1st part, the items were arranged systematically, a column for each 1 of the 4 fundamental mathematical operations. In the 2nd part, the arrangement of the items was done on a random basis. The 2 parts were administered to 25 normals and 24 patients.—*J. Di-Giovanni.*

4940. **Skawran, R. F.** The Willemse Board as a personality test. *Psychol. Afr.*, 1962, 9, 72-85.—The Willemse Board test is described together with its administration. It is believed to measure personal insecurity, a factor which is detrimental to success in flying. This factor was studied in relation to the test with 2 groups of pupil pilots ($N = 52$ and 50). Further research is needed but the test measures personality qualities "to an encouraging degree." It is not interrelated with other pupil pilot selection tests. Photographs are presented.—*J. L. Walker.*

TEST STANDARDIZATION & EVALUATION

4941. **Ammons, R. B., & Ammons, C. H.** (Montana State U.) The Quick Test (QT): Provisional manual. *Psychol. Rep.*, 1962, 11(1), 111-161.—"A detailed account is given of the development, standardization, and evaluation of The Quick Test, a brief individual intelligence test based on perceptual-verbal performance. Three single forms . . . cover abilities from the two-year level to the superior-adult level. Three to ten minutes are required to administer the QT. . . . Standardization was based on the responses of 458 children and adults, a sample controlled on a simultaneous quota basis for age, sex, educational level and own, or father's occupation. Single forms and combination forms . . . were found to be highly reliable (.66 to .95). These estimates were corroborated in several independent studies ($N = 111$), as were validity estimates (.77 to .96, correlations with the revised Stanford-Binet and the Wechslers). Ma, IQ, and percentile norms are included as well as a discussion of practical problems . . . and ideas for further research."—*B. J. House.*

4942. **Ferdinand, W., & Müller, F.** (Morsbach-Weg 21, Düsseldorf-Gerresheim, Germany) Der Intelligenz-Struktur-Test im 8. Volksschuljahr. [The Intelligence-Structure Test for eighth graders.] *Z. exp. angew. Psychol.*, 1962, 9(2), 176-189.—570 boys and girls were tested during their last year of public school. Besides establishing norms for this age level the testing demonstrated that more pupils were capable of continuing secondary schooling than were recommended by teachers.—*W. J. Koppitz.*

4943. **Keller, E. Duwayne, & Rowley, Vinton N.** (State U. Iowa) Junior high school and additional elementary school normative data for the

Children's Manifest Anxiety scale. *Child Developm.*, 1962, 33(3), 675-681.—The present study reports CMA scale normative data for junior high and additional elementary school white children. Junior high girls scored higher on the A scale than junior high boys, but no difference was found between elementary boys' and girls' scores. No overall difference between elementary and junior high children's A scale means was found. No difference was found between L-scale means of junior high boys and girls nor between elementary boys and girls. Elementary children were found to score higher on the L scale than junior high children. Correlations between the A and L scales were not significant.—*Author abstract.*

4944. Matthews, Charles G., Guertin, Wilson H., & Reitan, Ralph M. (Fort Wayne State School) **Wechsler-Bellevue subtest mean rank orders in diverse diagnostic groups.** *Psychol. Rep.*, 1962, 11(1), 3-9.—"Rank difference coefficients of correlation were computed between Wechsler-Bellevue subtest rank orders in 18 diagnostic groups including retardates, several categories of cerebral damage, and various neurotic and psychotic disorders. The resulting matrix of 153 coefficients was factor analyzed using Thurstone's centroid method. Most of the systematic variance was accounted for in two major factors"—verbal impairment, associated with groups with long standing disabilities, and performance impairment, associated with groups whose impairment appeared after an extended period of relatively normal growth and development. "Limitations and implications of the study were discussed in relation to previous Wechsler-Bellevue subtest pattern investigations."—*B. J. House.*

4945. Osborne, R. Travis, & Allen, Jerry. (U. Georgia) **Validity of short forms of the WISC for mental retardates.** *Psychol. Rep.*, 1962, 11(1), 167-170.—"The present study was undertaken to determine the WISC triads which would yield the smallest error in predicting Full Scale IQs for white mental retardates. The WISC was administered to a base group of 240 mental retardates. Full Scale-triad correlation coefficients were computed for all possible three-test combinations. The experiment was replicated with a comparable group of 50 Ss. Eight WISC triads which were found to hold up well for both the base and the validating groups are offered as valid predictors of Full Scale WISC IQs."—*B. J. House.*

4946. Phatak, Pramila. **Calculations of norms on Phatak's Draw-a-Man Scale for Indian children in Gujarat.** *J. Maharajah Sayajirao U. Baroda*, 1962, 11(1-2), 131-138.—Norms based on the scoring of 8000 drawings of children of 6-10 years are presented including means and SDs for 4 age groups and 5 educational levels. 75 critical ratios of the differences in means are given, out of which 53 were found to be significant.—*U. Pareek.*

4947. Ray-Chowdhury, K. (Muslim U., Aligarh, India) **Allport-Vernon-Lindzey Study of Values (Old Form) in Indian situation: II. Reliability and item-analysis.** *Indian psychol. Bull.*, 1959, 4, 7-15.—An experimental version of the Allport-Vernon Study of Values (1951 edition) was used in an investigation carried out in 1956-57 on 518 graduate men and women of Aligarh. The Kuder-Richardson reliability figures were as follows: Theo-

retical = .92; Economic = .93; Aesthetic = .97; Social = .94; Political = .91; Religious = .98. An item analysis suggested modifications for Indian graduates of 9 items in Theoretical, 9 in Economic, 11 in Aesthetic, 5 in Social, 5 in Political, and 7 in Religious categories.—*A. K. Ganguly & S. L. Mishra.*

4948. Ray-Chowdhury, K. (Muslim U., Aligarh, India) **Allport-Vernon-Lindzey Study of Values (Old Form) in Indian situation: III. Occupational group differences and norms in values at the college level.** *Indian psychol. Bull.*, 1959, 4, 20-29.—Norms for several occupational groups at the college level have been prepared for use in Indian situations. Several occupational group differences have been found to be significant in all the 6 categories of the Study of Values.—*S. L. Mishra & M. O. Husain.*

4949. Sax, Gilbert. (U. Hawaii) **Theoretically derived chance scores and their normative equivalents on a selected number of standardized tests.** *Educ. psychol. Measmt.*, 1962, 22(3), 573-576.—On some standardized tests, chance scores alone may place a child at a spuriously high normative equivalent. An example is given of an 11-year-old with a raw score equal to chance placing at the 80th percentile for his age group and with an IQ of 116 corresponding to the raw score. A table is presented for 8 widely used tests showing the chance scores and their normative equivalents. Test publishers, authors, and users need to be more cognizant of the role that chance scores play in test interpretation.—*W. Coleman.*

4950. Tesi, G., & Bouterline Young, H. **A standardization of Raven's Progressive Matrices 1938 (Revised Order, 1956).** *Arch. Psicol. Neurol. Psichiat.*, 1962, 23(5), 456-464.—Italian standardization in centiles and stanines of Raven's Progressive Matrices with some discussion of differences between Italian and English samples as well as between boys and girls.—*L. L'Abate.*

INTELLIGENCE & CREATIVITY

4951. Allen, Robert M. (U. Miami) **The real question in digit span performance.** *Psychol. Rep.*, 1962, 11(1), 218.—Discussion of a study by Craddick and Grossman (see 37: 4953).—*B. J. House.*

4952. Barratt, Ernest S., Clark, Marjorie, & Lipton, James. (Texas Christian U.) **Critical flicker frequency in relation to Cattell's Culture Fair Intelligence score.** *Amer. J. Psychol.*, 1962, 75(2), 324-325.—None of the studies on critical flicker frequency (CFF) and intelligence reviewed up to 1956 employed measures of intelligence that were culturally free. Logically the nearer one gets to such measures, the more the variances of the tests will reflect neuro-physiological processes involving sensory input-systems. 42 5th-grade children were given both the Cattell test and a CFF test. The 2 were significantly related, the correlation being 0.43. For the same group, the correlation between CFF and total scores for the children's Wechsler test was -0.09.—*R. D. Nance.*

4953. Craddick, Ray A. (New Mexico State U.) **Reply to Allen on the real question in digit span performance.** *Psychol. Rep.*, 1962, 11(1), 238.—A

discussion of criticism by Allen (see 37: 4951) of a study by Craddick and Grossman.—*B. J. House.*

4954. Craddick, Ray A., & Grossmann, Klaus. (New Mexico State U.) Effects of visual distraction upon performance on the WAIS Digit Span. *Psychol. Rep.*, 1962, 10, 642.—No detrimental effect on Digit Span scores of undergraduates was observed as a result of distraction induced by E's looking directly into the eyes of S as he responded.—*B. J. House.*

4955. Galton, Francis. Hereditary genius: An inquiry into its laws and consequences. New York: Meridian Books, 1962. 446 p. \$1.45 (paper).—A paperback edition of Galton's work. The text is that of the 2nd edition, published in 1892.—*E. L. Borrowman.*

4956. Higgins J. V., Reed, Elizabeth W., & Reed, S. C. (U. Minnesota) Intelligence and family size: A paradox resolved. *Eugen. Quart.*, 1962, 9 (2), 84-90.—A study of 1016 families in which IQ values for both parents and one or more of their children were available, as well as for the unmarried or childless siblings of the parents. "The inclusion of these siblings allowed us to resolve the old paradox presented by the failure of the general intelligence level to decline in accord with the large negative correlation (-0.30) between intelligence and the number of children in the family." The solution lies in the fact that when nonreproducing siblings of the parents are included the negative correlation disappears. This higher reproductive rate of parents in the lower IQ rates is offset by the larger proportion of their siblings who never marry or fail to have children.—*S. G. Vandenberg.*

4957. Liddicoat, R., & Roberts, A. O. H. Interim standardization of the South African version of the Wechsler-Bellevue Adult Intelligence test. *Psychol. Afr.*, 1962, 9, 273-285.—An adaptation of the Wechsler-Bellevue for use in South Africa was begun in 1947. Interim norms for age groups from 18 to 44 have been developed. Testing will continue until 2948 protocols are available. The possible use of the test for clinical diagnostic purposes will then be investigated.—*J. L. Walker.*

4958. Mackinnon, D. W. (U. California) The personality correlates of creativity: A study of American architects. In G. Nielson (Ed.), *Proceedings of the XIV International Congress of Applied Psychology. Vol. 2. Personality research* (see 37: 4117). Pp. 11-39.—40 of 64 invited architects participated in a weekend "intensive assessment." Ratings on creativity were compared with numerous personality assessments.—*B. T. Jensen.*

4959. MacKinnon, Donald W. (U. California, Berkeley) The nature and nurture of creative talent. *Amer. Psychologist*, 1962, 17(7), 484-495.—"Creativity . . . is a process extended in time and characterized by originality, adaptiveness, and realization." Except for mathematicians "where there is a low positive correlation between intelligence and the level of creativeness, we have found within our creative samples essentially zero relationship between the two variables." A research study of the characteristics and background of creative architects is extensively discussed. Implications of the nature of creative talent for the nurturing of it in school and college

through the processes of education are considered.—*S. J. Lachman.*

4960. McLeod, H. N., & Rubin J. (Toronto Psychiatric Hosp., Canada) Correlation between Raven Progressive Matrices and the WAIS. *J. consult. Psychol.*, 1962, 26(2), 190-191.—Correlation is slightly higher for males and proportional to level of intelligence. Regression allows prediction of Full Scale score within 10 points in 73% of cases.—*E. R. Oetting.*

4961. Mednick, S. A., & Mednick, M. T. (U. Michigan) A theory and test of creative thought. In G. Nielson (Ed.), *Proceedings of the XIV International Congress of Applied Psychology. Vol. 5. Industrial and business psychology* (see 37: 4120). Pp. 40-47.—Defining creativity as associating information, 3 ways of creating are described: serendipity, through noting similarity, and through making remote associations. A "Remote Associates Test" requiring the examinee to find terms to relate triads of work is described, and some relationships with other variables are presented.—*B. T. Jensen.*

4962. Ohira, Katsuma. (Kanazawa U.) [A study on the intelligence and the language proficiency of city and farm-village children.] *Jap. J. educ. Psychol.*, 1962, 10(2), 107-112.—"The enquiry suggests that a group verbal intelligence test may not give an accurate T-score assessment for farm-village children, unless their inferiority in language proficiency is taken into account."—*C. T. Morgan.*

4963. Orme, J. E. Intelligence and season of birth. *Brit. J. med. Psychol.*, 1962, 35(3), 233-234.—"In short, birth in summer and autumn is likely to go with greater ability than in winter and spring. It is suggested that more study should be made of this phenomenon which might lead to important findings with regard to individual variations in intelligence." The conclusion is based on 148 Ss ranging in IQ from 40 to 69, studied with the Coloured Progressive Matrices Test.—*C. L. Winder.*

4964. Ray-Chowdhury, K. (Muslim U., Aligarh, India) Imagery and performance tests of intelligence. *Indian psychol. Bull.*, 1957, 2, 25-30.—A study of the relation between individuals' imagery scores and their scores on performance tests. Barratt's technique of assessing imagery strength of various modalities was used to prepare a 5-point imagery questionnaire measuring 4 dimensions or areas of visualisation. 50 Ss were used and the questionnaire was given to them after their performance on Kohs Blocks, Passalong, and Dearhorn Form Board. The correlations between imagery scores and performance scores was significant beyond the .01 level, suggesting the usefulness of Barratt's technique under specified conditions.—*A. K. Ganguly & S. L. Mishra.*

4965. Riegel, R. M., & Riegel, K. F. (U. Michigan) A comparison and reinterpretation of factor structures of the W-B, the WAIS, and the Hawie on aged persons. *J. consult. Psychol.*, 1962, 26(1), 31-37.—Using transformation analysis, no differences in factor structure are apparent for different tests, age, or American-German populations.—*E. R. Oetting.*

4966. Samejima, F. (Nippon Research Cent.) [Theoretical correspondence between Lord's theory and Thrustone's theory.] *Jap. J. Psychol.*, 1962, 33

(2), 84-97.—The purpose of the study was to investigate Thurstone's theory of absolute scale in intelligence measurement from the standpoint of Lord's theory of test scores. It is concluded that the "modified absolute scale theory" proposed by Thurstone can be substituted for Lord's theory both in estimating the mean and standard deviation of an examinee group in mental ability and in obtaining an adequate substitute for the ability score, as far as tests consisting of items of high correlation with the ability measurement are concerned.—*A. Barclay.*

4967. Sandven, Johs. *Det teoretiske og metodiske grunnlag for modenhetssprøving.* [The theoretical and methodological basis for maturity testing.] *Pedag. Forsk.*, 1962, No. 3, 147-168.—The Norwegian maturity tests developed for children of school age and adolescents are described. The concept of maturity is considered superior to that of "intelligence" since, unlike the latter term, it generally does not carry the many undesirable connotations of something static, something that a person has or has not in a certain quantity, something that cannot be changed, etc. The tests mentioned (consisting of 6 series, 2 for ages 6-8, 2 for ages 9-11, and 2 for age 12 and up) are intended to depict the intellectual functions in the age ranges concerned, and within this frame to get as far down as possible to the ability factors that are basically characteristic of the person, with special emphasis on those that are important in school. The tests cover the memory function, verbal ability, space and form perception, reasoning ability, and quantitative ability. (English summary)—*L. Goldberger.*

4968. Sarason, I. G., & Minard, J. (U. Washington) *Test anxiety, experimental instructions, and the Wechsler Adult Intelligence Scale.* *J. educ. Psychol.*, 1962, 53(6), 299-302.—4 subscales of the WAIS were administered to 96 college students in an experiment in which there were 3 variables: (a) Ss' Test Anxiety Scale scores, (b) sex of S, and (c) preliminary conditions (achievement-orienting and neutral instructions). On the Vocabulary, Block Design, and Comprehension subscales low test anxious Ss were superior to high test anxious Ss. For Comprehension, this effect was largely attributable to the effects of instructions. High and low test anxious Ss did not differ on Digit Symbol, but a Test Anxiety X Sex X Instructions interaction was obtained for this subscale. The results were interpreted as indicating the relevance to performance of the 3 variables studied as well as the importance of the task variable in research and anxiety.—*Journal abstract.*

4969. Sperber, Z., & Adlerstein, A. M. (Children's Hosp., Philadelphia, Pa.) *The accuracy of clinical psychologists' estimates of interviewees' intelligence.* *J. consult. Psychol.*, 1961, 25(6), 521-524.—3 psychologists estimated IQs of mothers from transcripts of psychiatrists interviews, 2 from tape recordings. Mean *r* equals .70 with WAIS. More confident judges were more accurate.—*E. R. Oetting.*

4970. Thompson, Jack M., & Finley, Carmen J. (Sonoma County Schools) *The validation of an abbreviated Wechsler intelligence scale for children for use with the educable mentally retarded.* *Educ. psychol. Measmt.*, 1962, 22(3), 539-542.—WISC protocols for 173 educable mentally retarded

children were used to compute an IQ from weighted subtest scores. The predicted IQ scores agreed closely with the actual Full Scale scores. The authors conclude that the abbreviated WISC may be used as a valid predictor of the Full Scale IQ when educable mentally retarded children are to be tested.—*W. Coleman.*

4971. Torrance, E. P. (U. Minnesota) *Must creative development be left to chance?* *Gifted Child Quart.*, 1962, 6(2), 41-44.—Creative development, the author maintains, need not decline at Grade 4 as is commonly observed. Rather, certain teaching techniques increase original thinking. Evidence adduced from investigations in Samoa link decline in creativity to the low value placed on adventurousness and curiosity and the high value placed on promptness and competitiveness. Associated with cultural discontinuities, however, is a rise in creativity. Rapid technological changes generate research in and teaching of creative problem solving.—*N. M. Chansky.*

4972. Tripathi, T. P. *A factorial study of the differentiation of abilities.* *Shiksha*, 1962, 14(3), 122-133.—8 general ability tests were administered to boys of 13+. Results showed that 4 factors could be isolated: general mental ability, verbal ability, spatial ability, and number ability, in that order of importance. Educational implications are discussed.—*U. Pareek.*

4973. Vernon, P. E. (U. London) *Intellectual development in non-technological societies.* In G. Nielson (Ed.), *Proceedings of the XIV International Congress of Applied Psychology. Vol. 3. Child and education* (see 37: 4118). Pp. 94-105.—14,000 candidates for secondary school placement in the British West Indies were given the Moray House tests: smaller samples had other tests. It is estimated that the 95th percentile is at IQ 100. Environmental factors are apparently related.—*B. T. Jensen.*

PERSONALITY MEASUREMENT

4974. Andrey, Bernard. *Analyse d'éléments de la personnalité à travers un test de niveau verbal.* [Analysis of personality elements through a test of verbal level.] *Psychol. Franc.*, 1962, 7(2), 111-125.—The uses of intelligence and aptitude tests for the purpose of obtaining additional information are discussed. 4 cases are presented.—*C. J. Adkins.*

4975. Barton, Allen. (Columbia U.) *Measuring the values of individuals.* *Relig. Educ.*, 1962, 57(4, Res. Suppl.) 62-97.—The identification and limitation of value-concepts used in social science research, and procedures of quantifying variations in values by means of interviews, rating scales, tests, and other related methods are discussed.—*S. A. Walters.*

4976. Cairns, R. B., & Lewis M. (Indiana U.) *Dependency and the reinforcement value of a verbal stimulus.* *J. consult. Psychol.*, 1962, 26(1), 1-8.—3 measures of dependency.—The Edwards Personal Preference Schedule, Leary's Interpersonal Checklist, and a behavioural measure—were moderately related. Ss with low scores on the inventories judged the verbal reinforcement stimulus as negative or neutral. The low group shows a significant decrement when verbally reinforced for producing aggressive sentences, no differences for producing dependency words.—*E. R. Oetting.*

4977. Cattell, R. B. (U. Illinois) **Personality assessment based upon functionally unitary personality traits, factor analytically demonstrated.** In G. Neilson (Ed.), *Proceedings of the XIV International Congress of Applied Psychology, Vol. 2. Personality research* (see 37: 4117). Pp. 198-219.—Applied psychology must be based on proper advances in pure science. Factor analysis indicates more meaningful "source traits" than does an approach comparing variable with criterion.—B. T. Jensen.

4978. Crovitz, H. F. (VA Hosp., Durham, N. C.) **On direction in drawing a person.** *J. consult. Psychol.*, 1962, 26(2), 196.—". . . the data support the hypothesis that drawing directionality is related to the hand used in drawing." S's reports suggest that wrist flexion in drawing the forehead may be critical.—E. R. Oetting.

4979. Ekman, G. (U. Stockholm, Sweden) **Measurement of moral judgment: A comparison of scaling methods.** *Percept. mot. Skills*, 1962, 15(1), 3-9.—Scales of moral judgment were obtained by (a) the indirect method of pair comparisons on the assumption of Thurstone's Case V, and (b) the direct method of ratio estimation. The logarithmic relationship found in previous studies was verified also for this subjective continuum.—W. H. Guertin.

4980. Goldfried, M. R., & McKenzie, J. D., Jr. (U. Buffalo) **Sex differences in the effect of item style on social desirability and frequency of endorsement.** *J. consult. Psychol.*, 1962, 26(2), 126-128.—Items written in 7 different styles are evaluated. Social desirability increased only with the Guilty style. Frequency of responding was lowered by the Trouble Controlling style for males and increased by the Like Most People and Tempted styles for females.—E. R. Oetting.

4981. Guilford, J. P., Christensen, P. R., Taaffe, G., & Wilson, R. C. (U. Southern Calif.) **Ratings should be scrutinized.** *Educ. psychol. Measmt.*, 1962, 22(3), 439-447.—5 supervisors rated 53 research scientists on 8 traits after receiving instruction. 11 cognitive test factors were correlated with ratings on 8 graphic scales. Only 14 of the 99 correlations were significant at the .05 level indicating "that trait ratings may often measure variables other than those it is intended that they measure or those it is believed that they measure."—W. Coleman.

4982. Gynther, M. D. (Washington U. Medical School) **Degree of agreement among three interpersonal system measures.** *J. consult. Psychol.*, 1962, 26(1), 107.—MMPI and sociometric data show no agreement; self-description and sociometric rating, and MMPI and self-rating, show agreement. "Our contradictory findings cast doubt on Leary's assertion [see 31: 2556] that these tests measure specified, distinct levels of behaviour."—E. R. Oetting.

4983. Kjeldergaard, Paul M. (Harvard U.) **Commonality scores under instructions to give opposites.** *Psychol. Rep.*, 1962, 11(1), 219-220.—114 graduate students "were given the Kent-Rosanoff word association test twice, first with the usual instructions and then with instructions to respond with an 'opposite' whenever appropriate." An increase in commonality scores was observed on the 2nd test. Results are compared with similar findings by Jenkins

when Ss are instructed to give "popular" responses.—B. J. House.

4984. Knehr, Edeltraut. **Konflikt-Gestaltung im Szenotest.** [Conflict formation in the Scene-Test.] Munich, Germany: Reinhardt, 1961. 17 cards, 94 p. DM 11 (cloth), DM 9 (paper).—The formation of conflicts as observed impressionistically by means of the Scene-Test is described.—J. C. Brengelmann.

4985. Kogan, W. S., & Fordyce, W. E. (VA Hosp., Seattle, Wash.) **The control of social desirability: A comparison of three different Q sorts and a check list, all composed of the same items.** *J. consult. Psychol.*, 1962, 26(1), 26-30.—A theoretical discussion of social desirability and personality inventories. 3 variations of Q sort and a check list, show practical equivalence in variable scores and in control of SD. The check list is somewhat more susceptible to variations.—E. R. Oetting.

4986. Lessler, K. (Michigan State U.) **Sexual symbols, structured and unstructured.** *J. consult. Psychol.*, 1962, 26(1), 44-49.—Both structured and unstructured (dark and rough vs. light and soft) symbols are successfully identified by the adolescent and college groups. Pre-adolescents identify only structured symbols. Females are more consistent with unstructured symbols. A discussion of multiple determination is presented.—E. R. Oetting.

4987. Linton, H. B., Epstein, L., & Hartford, H. (New York U.) **Personality and perceptual correlates of primary beginning strokes in handwriting.** *Percept. mot. Skills*, 1962, 15(1), 159-170.—Primary beginning strokes were defined as voluntary elaborations of the essential letter form, while secondary beginning strokes were described as the retention of patterns learned in the first years of school. Ss using many primary beginning strokes were similar to Ss using many secondary beginning strokes in their tendency toward authoritarian attitudes. But while users of secondary beginning strokes had been found to be passive, inadequate, and generally immature, users of primary beginning strokes were found to be actively seeking external stimulation and ways of asserting themselves in a framework of other-directedness and conformity.—W. H. Guertin.

4988. Loprieno, M. **Caratteri della visibilità delle scelte interpersonali.** [Characteristics of visibility in interpersonal choices.] *Riv. Psicol. soc.*, 1962, 29(1), 3-11.—Coefficients of correlation between sociability, popularity, and self-esteem are discussed from the viewpoint of interpersonal visibility.—L. L'Abate.

4989. Mogar, R. E. (Pennsylvania State U.) **Anxiety indices in human figure drawings: A replication and extension.** *J. consult. Psychol.*, 1962, 26(1), 108.—(See 36: 5622) Draw-A-Person anxiety indicators are significantly related to Rorschach Content scores. Neither is related to Manifest Anxiety.—E. R. Oetting.

4990. Nichols, R. C., & Strumpfer, D. J. W. (Purdue U.) **A factor analysis of Draw-a-Person Test scores.** *J. consult. Psychol.*, 1962, 26(2), 156-161.—Factor analysis of 2 groups, male college students and VA patients, shows a very large factor accounting for most of the variance. The factor is interpreted as overall quality of drawing and is unrelated to gross adjustment of the VA patients.

Smaller factors are defined and discussed.—E. R. Oetting.

4991. Ray-Chowdhury, K. (Muslim U., Aligarh, India) **Comparative study of American and Indian weight scores of Allport's Ascendancy-Submission Reaction Study.** *Indian psychol. Bull.*, 1958, 3, 45-46.—A study of product-moment correlations between the weighted scores obtained in America and those obtained by the author in an Indian situation. The correlations computed separately for men and for women were: men ($N=90$), $r=.893$; women ($N=30$), $r=.908$. The paper also reports no significant racial or national differences at the upper level of the Indian population on certain Anglo-American personality tests like the present one.—A. K. Ganguly & S. L. Mishra.

4992. Ryder, R. (U. Michigan) **Teaching reliable rating of a process variable.** *J. consult. Psychol.*, 1962, 26(1), 106.—A flash card method of training raters shows great improvement in ability to postdict criterion ratings.—E. R. Oetting.

4993. Sargent, S. Stansfeld, & Beardsley, Katharine Pease. (VA Hosp., Phoenix, Arizona) **Social roles and personality traits.** *Int. J. soc. Psychiat.*, 1960, 6(1-2), 66-70.—2 studies are reported. A modified version of the Allport Ascendancy-Submission test and a newly constructed version of an introversion-extroversion test were given to college women in introductory psychology classes. The results were subjected to an analysis of variance to assess the contribution of situational variables in ascendancy-submission and introversion-extroversion. Situational influences do operate significantly in these dimensions though a situational theory of social behavior is not supported.—C. T. Morgan.

4994. Scarborough, B. B. (Florida State U.) **Measurement of interest with pictures.** *Percept. mot. Skills*, 1962, 15(1), 122.—A statistical reanalysis is made of Young's prisoner's responses to the Pictorial Interest Inventory. The analysis is made by occupational groups to show that something other than chance accounts for the choices.—W. H. Guertin.

4995. Sonnemann, U., & Kernan, J. P. **Handwriting analysis: A valid selection tool?** *Personnel*, 1962, 39(6), 8-14.—In Europe, especially in West Germany, graphology is an accepted and widely used technique in personnel selection. In the United States there has been little enthusiasm for its use. The present paper is a report on the results obtained by 1 leading American company which successfully employed graphology.—V. S. Sexton.

4996. Stephenson, W. (U. Missouri) **Perspectives in psychology: XX. A note on the methodology of clinical explanation.** *Psychol. Rec.*, 1962, 12, 101-103.—Issue is taken with Meehl's position that actuarial prediction is better than clinical. An argument is presented that clinical research is concerned with explanation, not with prediction, as is the actuarial approach. Therefore, the methodologies of the two, clinical and actuarial, are incommensurate. Facts for the clinical approach are not actuarial, as Meehl intends, but are provided specially in terms of the single case. The Q-sort is given as an example of objective investigation of the single case. The data provided are "objective, reliable and remarkably valid."—R. J. Seidel.

4997. Sundararaj, N. **The discriminant function analysis: Its technique and use in psychology and psychiatry.** *Pratibha*, 1959, 2(1), 66-70.—Application of the technique in analysis of 80 Ss, 40 clinical and 40 nonclinical cases, shows that it is very useful both in establishing the groups and in classifying the individuals into 1 of such groups. The 2 groups studied were tested for attention, perception, motor behavior, and memory.—U. Pareek.

4998. Thomae, H. (U. Bonn, Germany) **Consistency and variability as fundamental problems in personality assessment.** In G. Nielson (Ed.), *Proceedings of the XIV International Congress of Applied Psychology. Vol. 2. Personality research* (see 37: 4117). Pp. 188-197.—Even "consistent" characteristics change. "Any assessment of personality . . . must include the assessment of degree, direction, and conditions of possible change." (28 ref.)—B. T. Jensen.

4999. Timaeus, E., & Wolf, S. (U. Göttingen, Germany) **Untersuchungen über den Rosenzweig P-F test.** [Research on the Rosenzweig P-F test.] *Z. exp. angew. Psychol.*, 1962, 9(2), 352-360.—The effect of previous nonstress activities was investigated with 4 groups of students. The task was card sorting. 1 group saw only aggressive statements on their cards, the 2nd only ascendancy statements, the 3rd submission statements. The control group sorted color names. No significant differences between the groups was found on the P-F test. This result is taken as evidence that the P-F test actually measures personality traits and is not affected by irrelevant variables.—W. J. Koppitz.

5000. Tsuru, Hiroshi. (U. Kobe) [A study of personality by means of discrepancy in mutual ratings by the members of a small group.] *Jap. J. educ. Psychol.*, 1962, 10(2), 78-89.—"By means of Brownfain's 25 items of self-concept, a group of seven university students (one male and six female) were assessed by making each of them rate against 5-point scales [yielding indexes of alienation, awareness, adaptation, and understanding]. . . . These indices obtained were then compared with the result of Y-G Test which was given to the same group as an external criterion, and the reliability of the devised indices were confirmed. The results indicated that these indices differentiated fairly well both interactions of the members of the group and their respective personality characteristics."—C. T. Morgan.

5001. Wahler, H. J., & Watson, L. S. (Ohio State U.) **A comparison of the Shipley-Hartford as a power test with the WAIS Verbal scale.** *J. consult. Psychol.*, 1962, 26(1), 105.—"When IQ is a minor variable in a decision complex and only a broad categorization is required for the circumstances, the findings support the position that a Shipley estimate can be sufficient."—E. R. Oetting.

5002. Zalkind, S. S., & Costello, T. W. (City Coll., New York) **Perception: Some recent research and implications for administration.** *Admin. Sci. Quart.*, 1962, 7(2), 218-235.—Recent work on interpersonal perception is examined and suggestions are presented concerning some implications for administrative practice. The authors note that there is no easy means to make objective what is essentially a subjective process. They feel that it is possible to indicate some guidelines and precautions to

use in this complex aspect of interpersonal relations. Understanding the process of interpersonal perception is one way of attempting to avoid gross errors in interpersonal judgments.—*V. S. Sexton.*

Inventories

5003. Anderson, C. C., & Traub, R. E. (U. Alberta) **A general factor of social desirability in the high school.** *Educ. psychol. Measmt.*, 1962, 22 (3), 463-471.—“A matrix of intercorrelations, based on social desirability judgments made by rural adolescents to 54 items associated with Murray's needs, was drawn up for six groups and the total sample. The seven matrices were factorized and rotated to oblique simple structure using the oblimax criterion. The first centroid factor became increasingly general with successive grade levels. . . . An analysis of the oblimax factors for Grade XII boys yielded six factors tentatively identified as Sociability, Socialized Anxiety inverted, Ascendancy, Control, Impulsivity, and Liking for Change.” A 2nd-order analysis yielded the 2 factors of extroversion and impulsivity. The factors extracted had little similarity to those obtained by Messick.—*W. Coleman.*

5004. Comrey, Andrew L. (U. California, Los Angeles) **A study of thirty-five personality dimensions.** *Educ. psychol. Measmt.*, 1962, 22 (3), 543-552.—From 35 personality variables that had been defined and included in a 216-item personality inventory, 19 factors were extracted. The most important factors were neuroticism, dependence, compulsiveness, friendliness, and hostility. The author feels further refinement is needed before he will have a useful inventory for research purposes.—*W. Coleman.*

5005. Braun, John R. (U. Bridgeport) **Differential susceptibility to faking of various Ghiselli Self-Description Inventory scales.** *Psychol. Rep.*, 1962, 10, 639-641.—“The effects of a number of different faking instructions on Ghiselli Self-Description Inventory scores were investigated using seven groups of university students as Ss. The various GSDI scales were found to vary greatly in their susceptibility to attempted faking. Of special interest was the supervisory qualities scale which withstood even the most specific faking set.”—*B. J. House.*

5006. Braun, John R. (U. Bridgeport) **Effects of a top management faking set on the Gordon Personal Inventory.** *Psychol. Rep.*, 1962, 10, 611-614.—20 students scored significantly higher on the GPI when instructed to fake answers so as to appear the best possible candidate for a top executive position than when given normal instructions. Factors influencing results of faking studies are discussed both in general and with respect to earlier studies with the Gordon Personal Profile.—*B. J. House.*

5007. Edwards, A. L., & Heathers, Louise B. (U. Wash.) **The first factor of the MMPI: Social desirability or ego strength?** *J. consult. Psychol.*, 1962, 26 (1), 99-100.—The 1st factor loading of the 31 MMPI scales correlates $-.93$ with the percentage of social desirability items on the scale.—*E. R. Oetting.*

5008. Edwards, Allen L., & Diers, Carol J. (U. Washington) **Social desirability and the factorial interpretation of the MMPI.** *Educ. psychol. Measmt.*, 1962, 22 (3), 501-509.—“First factor load-

ings on 58 MMPI scales were obtained under Standard (S) instructions, under instructions to give Social Desirable (SD) responses, and under instructions to give Social Undesirable (SUD) responses. The first factor loadings were stable over the three sets of instructions and highly correlated. The first factor loadings of the scales under S, SD, and SUD instructions correlated $.89$, $.92$, and $.94$, respectively, with the proportion of items keyed for socially desirable responses in the scales. The results indicate that the first factor of the MMPI can be interpreted in terms of social desirability.” Ss were 120 male students who took the MMPI with the S instructions and under SD instructions one week later. Another group of 150 Ss were given the MMPI with the SUD instructions.—*W. Coleman.*

5009. Golden, Jules; Mandel, Nathan; Glueck, Bernard C., Jr., & Feder, Zetta. (Albany Medical Coll., N. Y.) **A summary description of fifty “normal” white males.** *Amer. J. Psychiat.*, 1962, 119 (1), 48-56.—12 years ago, a study of all 9th-grade students in the Minneapolis public schools yielded 73 students with scores 55 or below on the MMPI. A follow-up 12 years later was conducted on 50 of the original group. A psychosocial analysis and description of this “normal” group is offered.—*N. H. Pronko.*

5010. Heilbrun, A. B., Jr. (State U. Iowa) **The psychological significance of the MMPI K scale in a normal population.** *J. consult. Psychol.*, 1961, 25 (6), 486-491.—“... there was some support for the hypothesis that K is a measure of psychological health in a normal population in the case of females only.” Relation to a defensiveness scale for the adjective check list suggests that it is a measure of defensiveness for maladjusted Ss in a normal population but not necessarily for normal Ss.—*E. R. Oetting.*

5011. Lasky, Julian J. (VA Hosp., Perry Point, Md.) **Effect of prestige suggestion and peer standards on California F Scale scores.** *Psychol. Rep.*, 1962, 11 (1), 187-191.—155 student nurses were divided at the median into high-F and low-F groups according to scores on the California F Scale, and each $\frac{1}{2}$ further divided into matched control and experimental groups. Before a retest 1 month later, high-F and low-F experimental groups were told that most student nurses had scored in the opposite direction to their own, while control groups were retested without comment. Experimental groups showed significant shifts in the direction of spurious peer performance data, while control groups did not shift. No effects due to test administrator-low or high status—were obtained.—*B. J. House.*

5012. Levinger, G. (Western Reserve U.) **Social desirability in the ratings of involved and neutral judges.** *J. consult. Psychol.*, 1961, 25 (6), 554.—A rating check list on 31 family triads shows positive correlations, in all cases, with social desirability of the items. Parents ratings of selves and children are consistently more favorable than teachers or clinicians. Studies of social desirability loadings should “concern themselves with the nature of the judge-object relationship.”—*E. R. Oetting.*

5013. Lubin, B., Levitt, E. E., & Zuckerman, M. (Indiana U. Medical Cent.) **Some personality differences between responders and nonresponders to a survey questionnaire.** *J. consult. Psychol.*, 1962, 26 (2), 192.—On the Edwards' Personal Preference

Schedule, sophomore student nurses are higher on the n Order and on the Dependency Ratio and non-responders on n Aggression.—E. R. Oetting.

5014. Nichols, Robert C. (Purdue U.) **Subtle, obvious and stereotype measures of masculinity-femininity.** *Educ. psychol. Measmt.*, 1962, 22(3), 449-461.—"Three experimental FM scales were constructed on the basis of sex difference in item response and the general expectation of a sex difference. The Subtle scale was composed of items showing sex differences which people are generally not aware of; the Stereotype scale was composed of items showing no sex difference but for which there was a general expectation of a sex difference; and the Obvious scale was composed of items showing a sex difference of which people are generally aware. . . . The Subtle and Stereotype scales correlated -.44 for female subjects and -.48 for male subjects. Possible explanations for this negative relationship, as well as other correlations among various MF scales, were discussed."—W. Coleman.

5015. Pumroy, Donald K. (U. Maryland) **Relationship between the Social Desirability scale and the California Psychological Inventory.** *Psychol. Rep.*, 1962, 10, 795-796.—"Correlations obtained between the Edwards SD scale and scales of the Gough California Personality Inventory indicate that, while social desirability is involved in the CPI scale, it is not as important a factor as with many other personality tests."—B. J. House.

5016. Quero, R., Caille, E. J. P., Boudon, R. C. P., & Lautman, J. F. **La mesure de l'adaptabilité sociale a partir de l'Inventaire de Temperament de Guilford-Zimmerman et du M.M.P.I.: Essai de construction d'un questionnaire d'adaptation sociale.** [The scale of social adaptability derived from the Guilford-Zimmerman Temperament Inventory and the MMPI: Attempt to construct a social adaptation questionnaire.] In Frank Geldard (Ed.), *Defence psychology* (see 37: 4053). Pp. 275-285.—An experimental program is described in which various items from the Guilford-Zimmerman Temperament Inventory are combined with selected items from the MMPI to produce a 136-item questionnaire that is useful as a measure of social adaptability. A complete listing of all 136 items is given.—G. H. Mowbray.

5017. Rosenthal, R., Persinger, G. W., & Fode, K. L. (U. North Dakota) **Experimenter bias, anxiety, and social desirability.** *Percept. mot. Skills*, 1962, 15(1), 73-74.—10 naive Es conducted an experiment after having been biased to expect certain data from their Ss. Agreement of E's data with his bias was related to E's scores on Minnesota Multiphasic Inventory scales, L. K, and Pt, but not to age and grade-point average.—W. H. Guertin.

5018. Schultz, Charles B., Kogan, William S., & Chapman, Harry. (U. Washington) **Favorability, unfavorability, and content considerations in SD scales.** *Psychol. Rep.*, 1962, 10, 619-622.—"It was noted that HiSD and LoSD scales generally had lower intercorrelations than LoSD and LoSD scales. . . . To evaluate the influence of [several factors] . . . MMPI answer sheets for 252 psychiatric patients were scored for five especially contrived SD scales. The evidence shows that difference in content can make a significant difference in SD scale correla-

tions. It also shows that, when scales are matched on content, favorability or unfavorability of the items makes a significant difference in SD scale scores. This may be due to different implications of responses to the different items or to acquiescence."—B. J. House.

5019. Van de Castle, R. L. (U. Denver) **Perceptual immaturity and acquiescence among various developmental levels.** *J. consult. Psychol.*, 1962, 26(2), 167-171.—Items from the Welsh Figure Preference Test are selected for a perceptual maturity scale on the basis of differences between elementary pupils and college students with low Sc scores on the MMPI. Adult schizophrenics taking the scale score between 11-12-year-olds and normal adults. A revision to eliminate response bias improved differentiation. Theoretical discussion is included.—E. R. Oetting.

5020. Wahler, H. J. (Ohio State U.) **Response styles in clinical and nonclinical groups.** *J. consult. Psychol.*, 1961, 25(6), 533-539.—Consistent response styles, such as agree-disagree and social desirability sets, are found among college students and 2 differing groups of clinical Ss on a self-description inventory and 3 MMPI scales. Multiple interactions occur between response style, subpopulation differences, item desirability, and other differences such as types of content.—E. R. Oetting.

5021. Walder, J. N. (U. Washington) **An examination of the role of the experimentally determined response set in evaluating Edwards' Social Desirability scale.** *J. consult. Psychol.*, 1962, 26(2), 162-166.—Comparison of MMPI given normally and with instructions to maximize social desirability; significant changes occur in Edwards' SD scale, Wiggins' Sd scale, and the K scale. High SD Ss change less. Cutting scores are given.—E. R. Oetting.

5022. Webster, Harold. (U. California, Berkeley) **Acquiescence, social desirability and inhibition reflected by "response set" scales.** *Psychol. Rep.*, 1962, 10, 789-790.—"In this note it has been contended that responding 'false' to personality inventory items, and response in a socially desirable direction, are positively correlated aspects of personality; and, similarly, that endorsing such items and response in the socially undesirable direction are also positively related. Consequently, any analysis that attempts to treat personality acquiescence-denial and social desirability-social undesirability as independent runs grave risk of leading us astray."—B. J. House.

Projective Methods

5023. Burstein, A. G. (U. Michigan) **A note on time of first responses in Rorschach protocols.** *J. consult. Psychol.*, 1961, 25(6), 549-550.—A recommendation for the use of the median rather than the mean as the measure of central tendency for time of 1st response.—E. R. Oetting.

5024. Dagston, P. G., & McConnell, O. L. (Duke U.) **Stability of Rorschach penetration and barrier scores over time.** *J. consult. Psychol.*, 1962, 26(1), 104.—". . . the Fisher-Cleveland scoring system seems sufficiently objective and stable . . . to be of value."—E. R. Oetting.

5025. Epstein, S. (U. Massachusetts) **Food-related responses to ambiguous stimuli as a func-**

tion of hunger and ego strength. *J. consult. Psychol.*, 1961, 25(6), 463-469.—College students were given the Rorschach after periods of food deprivation up to 23 hours. Food imagery increased through 8 hours and decreased at 23 hours when strong food associations were eliminated. High ego strength Ss reported less hunger and produced fewer food-related responses, including a decrease at 23 hours. Food related activity responses were related to derivation; food object responses were not.—*E. R. Oetting*.

5026. Geertsma, Robert H. (U. California, Los Angeles) Factor analysis of Rorschach scoring categories for a population of normal subjects. *J. consult. Psychol.*, 1962, 26(1), 20-25.—A refactoring of Wishner's matrix (see 34: 5999) extracted 7 1st-order factors closely paralleling Rorschach scoring categories. 2 2nd-order factors were also produced.—*E. R. Oetting*.

5027. Ghosh, Molina. Influence of the presence of foreign elements in Murray TAT pictures in the contents of stories given by Indian subjects. *Shiksha*, 1962, 14(3), 98-102.—The original TAT was administered to Indian adolescents. Out of 95 Ss, only 35 seemed to be conscious of the foreign elements in the picture (60 did not make any mention). 21% of the preadolescents referred to the foreign elements. The adolescents saw most foreign elements in Picture 14 and the preadolescents in Picture 11.—*U. Pareek*.

5028. Kramer, Harvey J. Stimulus variables in auditory projective testing: I. An information theory method for measuring psychological ambiguity. II. Effects of varying ambiguity and type of content upon projection with blind and sighted. *American Found. Blind res. Ser.*, 1962, No. 9. 81 p.—2 independent but interacting investigations were conducted designed "to investigate the effects of varying ambiguity and type of content upon projective responses from auditory thematic apperception stimuli. The interactional effects of these two major stimulus variables upon projection and the effects of blindness upon the experimental relationships were measured."—*B. Lowenfeld*.

5029. Murstein, B. I., David, C., Fisher, D., & Furth, H. G. (Interfaith Counseling Cent., Portland, Ore.) The scaling of the TAT for hostility by a variety of scaling methods. *J. consult. Psychol.*, 1961, 25(6), 497-504.—100 undergraduate psychology students judged projected TAT cards for hostility. Judgments were scaled by several methods and 8 cards were selected. All of the methods could be used.—*E. R. Oetting*.

5030. Ramachandra, Rao, S. K. (All-India Inst. Mental Health) Studies with Thematic Apperception Test. *Trans. All-India Inst. Ment. Hlth.*, 1961, 2, 84-106.—4 types of personality tests are enumerated: undisguised structured, disguised structured, undisguised unstructured, and disguised unstructured. Psychometric tests are structured, whereas the projective tests are unstructured and mostly disguised. 4 kinds of overviews of TAT methods are plausible: (a) the different purposes for which TAT analyses are pressed; (b) the manifold elements which are sifted out for analysis; (c) the work methods; and (d) the main approach—such as the normative, hero-oriented, intuitive, interpersonal, or perceptual.—*J. DiGiovanni*.

5031. Shentoub, V., & Shentoub, S. A. (Centre National Recherche Scientifique) Recherche expérimentale et clinique du thème "banal" dans le TAT. [Experimental and clinical research of the "banal" theme in the TAT.] *Psychiat. Enfant*, 1960, 3(2), 405-524.—Being structured to some extent, TAT pictures are expected to elicit dominant or "banal" themes. Deviations from such themes are believed to have clinical significance. The TAT protocols of 100 normal Ss and 60 psychiatric patients were compared. The results indicated that, in order to define the "banal" theme and thus deviations, the plot, conflictual level, and the degree of identification must be taken into consideration.—*R. Naar*.

5032. Tripathi, S. N., & Julka, Gulshan (Vidya-bhawan Teachers Coll., Udaipur, India) Content analysis of the Rorschach test. *U. Rajasthan Stud. (Educ.)*, 1960, 4, 21-34.—Rorschach protocols of 19 high school students were analyzed for content. The interpretations of Phillips and Smith are given followed by Indian findings. A summary of the analysis appears in the appendix.—*U. Pareek*.

PERSONALITY DIAGNOSIS

5033. Anker, J. M. (VA Hosp., Perry Point, Md.) A note on the factor structure of the neuropsychiatric chronicity scale (see 37: 3210). *J. consult. Psychol.*, 1962, 26(2), 198.—The 6 factors obtained "provide a meaningful description of the item response patterns likely to be produced by recently admitted neuropsychiatric patients destined to become chronic."—*E. R. Oetting*.

5034. Archibald, H. C., Bell, Dorothy; Miller, Christine, & Tuddenham, R. D. (VA Mental Hygiene Clinic, Oakland, Calif.) Bereavement in childhood and adult psychiatric disturbance. *Psychosom. Med.*, 1962, 24(4), 343-351.—In a comparative sample of 1000 psychiatric patients with the general population, it was found that the psychiatric group showed an appreciably greater frequency of bereavements in childhood. In direct contrast to the controls, the patients tended to lose their parents when younger. In the MMPs of 100 patients the Depression scores tended to be elevated.—*W. G. Shipman*.

5035. Defayolle, M., Matthieu, M., & Fustier, P. Essai d'une approche psychométrique du test de l'arbre. [Trial of a psychometric approach of the tree test.] *Psychol. Franc.*, 1962, 7(3), 223-229.—250 normal men of age 20, 35 delinquents, and 115 psychiatric patients were asked to draw a tree. The drawings were objectively scored and the scores factor analyzed. 2 factors were extracted. The normals were differentiated from the psychiatric cases except for some overlap with the anxiety cases.—*C. J. Adkins*.

5036. Goldfried, Marvin R. (U. Rochester) On differences in meaning between normals and neurotics. *Psychol. Rep.*, 1962, 11(1), 183-186.—A criticism of a study by Luria (see 34: 1521) which distinguished normal and neurotic groups on the basis of semantic differential responses. Ambiguities of interpretation arising from the method of selected instances are discussed, as well as some statistical questions.—*B. J. House*.

5037. Goucher, E. L., Riggs, L. E., Efron, H., Myers, R. F., & Scanlan, E. R. (VA Hosp., Lyons,

N. J.) **Lyons relationship scales: A study of reliability.** *J. consult. Psychol.*, 1961, 25(6), 556.—Reliability is demonstrated for both schedules of a 2-way scale for assessing patient family relationship.—*E. R. Oetting.*

5038. **Govindaswamy, M. V.** **Intuition or evaluation? Panic problems in psychiatric assessment.** *Pratibha*, 1959, 2(1), i-viii.—Psychiatric treatment must be evaluated scientifically with the patient as the central frame of reference. This is possible through dynamic diagnosis which takes into account factors like ego strength, areas of affection, intensity of the disturbance, nuclei around which signs and symptoms cluster, and the environmental situation. Present evaluations neglect the social factors in therapy. No attempt is made to trace the "message" of the symptoms to the past. The integrated approach of various disciplines can help psychiatry solve the problem.—*U. Pareek.*

5039. **Gynther, M. D.** (Washington U. Medical School) **The clinical utility of "invalid" MMPI F scores.** *J. consult. Psychol.*, 1961, 25(6), 540-542.—Among 246 white male court referrals, 39 had F scores over 16. Most of these were classified as behavior disorders. The remainder were judged as psychotics, none as neurotics.—*E. R. Oetting.*

5040. **Hathaway, S. R.** (U. Minnesota) **Problems of personality assessment.** In G. Nielson (Ed.), *Proceedings of the XIV International Congress of Applied Psychology. Vol. 2. Personality research* (see 37: 4117). Pp. 144-160.—The possibility exists that personality test development has been hampered by attempts to eliminate the observer. An approach based upon the type concept of personality, using a "rigorous combination of statistical and clinical processing" is proposed.—*B. T. Jensen.*

5041. **Jones, L. W., & Thomas, C. B.** **Studies on figure drawings.** *Psychiat. Quart. Suppl.*, 1961, 35(2), 212-261.—Review of the figure drawing literature from 1949 through 1959 shows an increased use of the Draw-A-Person Test with more emphasis on its research role. As yet there is no universally accepted scoring procedure. Witkin's major study has shown that reliable scoring and statistically significant correlations can be made between figure drawing scores and other test scores such as the Rorschach. The Draw-A-Person Test promises to become a simple and effective screening device for the personality appraisal of normal Ss.—*D. Prager.*

5042. **Manning, Mary Jane, & Glasser, Betty Ann.** (Roxbury Court & Clinic, Boston, Mass.) **The home visit in the treatment of psychiatric patients awaiting hospitalization.** *J. Hlth. hum. Behav.*, 1962, 3(2), 97-104.—In order to study the effects of a home visit on psychiatric patients awaiting treatment, 16 individuals were visited. Home visits were found to be an effective diagnostic and treatment tool. Moreover, the best time seemed to be after an initial intake office interview. While subsequent treatment of these 16 cases was relatively successful, the results were interpreted cautiously. Larger Ns in future studies should provide more conclusive results.—*L. A. Ostlund.*

5043. **Overall, John E., & Gorham, Donald R.** (Kansas State U.) **The Brief Psychiatric Rating Scale.** *Psychol. Rep.*, 1962, 10, 799-812.—"Descrip-

tion of a brief psychiatric rating scale is presented, along with recommendations for its use. The scale was developed in an effort to meet the need for an efficient, rapid and economical method of assessing treatment change in psychiatric research, although usefulness of the instrument for patient classification and other research is suggested. The instrument contains 16 ordered category rating scales to be completed following a 20-min. clinical interview. Each of the 16 scales was developed to assess patient symptomatology in a relatively discrete symptom area identified in previous investigations."—*B. J. House.*

5044. **Perez-Reyes, M., Shands, H. C., & Johnson, G.** (U. North Carolina Medical School, Chapel Hill) **Galvanic skin reflex inhibition threshold: A new psychophysiological technique.** *Psychosom. Med.*, 1962, 24(3), 274-277.—18 depressed patients were divided by standard clinical criteria into 2 groups: 10 psychoneurotics and 8 psychotics. Sodium thiopental was administered as a sedative to note the GSR changes that occur between the 2 groups. It was concluded that the GSR inhibition threshold is a simple and objective method that seems to differentiate, at a high level of reliability, between psychotically and psychoneurotically depressed Ss. (16 ref.)—*W. G. Shipman.*

5045. **Raush, Harold L., & Sweet, Blanche.** **The preadolescent ego: Some observations of normal children.** *Psychiatry*, 1961, 24(2), 122-132.—A discussion of a few aspects of ego functions and achievements which distinguish well-adjusted from hyperaggressive children, with illustrations and speculations.—*C. T. Morgan.*

5046. **Reitan, R. M., & Reed, H. B. C., Jr.** (Indiana U. Medical Cent.) **Consistencies in Wechsler-Bellevue mean values in brain-damaged groups.** *Percept. mot. Skills*, 1962, 15(1), 119-121.—Rank-order distributions of Wechsler-Bellevue subtest means were prepared for groups of Ss with lateralized cerebral lesions and for groups of Ss with diffuse cerebral dysfunction. The rank-order distributions of subtest means were then compared using rank-difference correlation coefficients. The results indicate that lateralized cerebral lesions result in differential impairment of Wechsler-Bellevue performances but that groups of Ss with diffuse or heterogeneous cerebral damage demonstrate a high degree of consistency in their Wechsler-Bellevue performances.—*W. H. Guertin.*

5047. **Riddel, S. A.** (Banstead Hosp., Sutton, Surrey, England) **The relationships between tests of organic involvement, memory impairment and diagnosis in elderly psychiatric patients.** *Brit. J. soc. clin. Psychol.*, 1962, 1(3), 228-231.—"The performances of a group of elderly psychiatric patients on Inglis' Auditory Recall Test and Walton and Black's Modified Word Learning Test [MWLT] were examined in relation to one another and in relation to psychiatric diagnosis. Correlations between the tests were low. The MWLT, using Terman-Merrill Vocabulary [T-M], correlated significantly more highly with diagnosis than did the MWLT using the WAIS Vocabulary. The MWLT (T-M) also correlated more highly with diagnosis than did either form of the ART."—*C. M. Franks.*

5048. **Sperber, Z.** (Children's Hosp., Philadelphia, Penn.) **Rigidity and conformity tendencies**

of judges and their utilization of autobiographical material in making predictions. *J. consult. Psychol.*, 1962, 26(2), 144-148.—Using the California F Scale and Sanford and Wesley's Rigidity Scale, Ss' rigidity was positively related to a change in predicting Guilford's STDCR responses from the 1st $\frac{1}{2}$ and the complete autobiography. Accuracy of the less rigid Ss tended to improve.—*E. R. Oetting.*

5049. Vispo, Raul H. (Queen's U., Kingston, Ontario, Canada) **Pre-morbid personality in the functional psychoses of the senium. A comparison of ex-patients with healthy controls.** *J. ment. Sci.*, 1962, 108(Whole No. 457), 790-800.—Clinical study of 25 ex-patients and 25 controls indicates sharp differences in personality in earlier years, but not sufficient to allow prediction of breakdown from specific personality attributes. The approach of death presents a final challenge which the neurotic may be unable to meet.—*W. L. Wilkins.*

5050. Weiner, I. B. (U. Rochester School Medicine & Dentistry) **Rorschach tempo as a schizophrenic indicator.** *Percept. mot. Skills*, 1962, 15(1), 139-141.—4 indices of deviant Rorschach tempo were derived from normally expected response rates. In 2 samples of 82 and 83 patients, the presence of any one of these indices was significantly associated with a diagnosis of schizophrenia. This variable correctly classified $\frac{3}{4}$ of the total population as schizophrenic or nonschizophrenic.—*W. H. Guertin.*

5051. Whitaker, L., Jr. (Wayne Co. General Hosp., Mich.) **The use of an extended draw-a-person test to identify homosexual and effeminate men.** *J. consult. Psychol.*, 1961, 25(6), 482-485.—Of 236 men referred to a court clinic, those rated as homosexual and/or effeminate produced significantly more female figures as a free choice in a draw-a-person test extended to one more free figure. For predictive purposes, improvement over the base rate is minimal.—*E. R. Oetting.*

PERSONALITY ADJUSTMENT

5052. Bendig, A. W. (U. Pittsburgh) **Factor analytic scales of covert and overt hostility.** *J. consult. Psychol.*, 1962, 26(2), 200.—A 20-item scale for covert hostility and a 14-item scale for overt hostility are obtained by factor analysis from the Buss-Durkee Hostility Inventory. Reliabilities and intercorrelations are reported.—*E. R. Oetting.*

5053. Berkowitz, Leonard; Green, James A., & Macaulay, Jacqueline R. (U. Wisconsin) **Hostility catharsis as the reduction of emotional tension.** *Psychiatry*, 1962, 25(1), 23-31.—80 Ss were angered, with one group permitted to strike the frustrator and another group denied this opportunity. The Ss, believing that their frustrator had been harmed, experienced less tension than the others. The Ss who "catharted," however, did not appear to have become friendlier to the frustrator and in fact might be just as apt to be angered by the same individual in the future.—*H. M. Cohen.*

5054. Block, U. (U. California, Berkeley) **Ego strength and conflict discrimination: A failure of replication.** *J. consult. Psychol.*, 1961, 25(6), 551-552.—A replication of Korman's study (see 35: 2220) with normal Ss shows no significant relationship.—*E. R. Oetting.*

5055. Buss, A. H., Fischer, H., Simmons, A. J. (U. Pittsburgh) **Aggression and hostility in psychiatric patients.** *J. consult. Psychol.*, 1962, 26(1), 84-89.—Aggression and hostility are assessed by a number of different techniques. Ratings by psychologists, psychiatrists, and relatives tend to be unrelated but on factor analysis all show an Aggressiveness and a Hostility factor. The level of emitting hostile verbs and solutions to scrambled sentences may be better than all other measures. The Iowa Picture Interpretation Test is related to these measures. Rorschach hostility is not. Ratings of psychiatrists and female relatives are related to the Buss-Durkee Inventory.—*E. R. Oetting.*

5056. Carrier, Neil A. (Southern Illinois U.) **Need correlates of "gullibility."** *J. abnorm. soc. Psychol.*, 1963, 66(1), 84-86.—The gullibility of college students in accepting false personality analyses of themselves was found to be positively related to the achievement, deference, and introception variables of the EPPS among male Ss. Among female Ss, gullibility was positively related to abasement and introception and negatively related to endurance.—*Journal abstract.*

5057. Cattell, James P. **Deprivation and fantasy: Early experiences, later developments, and therapeutic connotations.** *Comprehen. Psychiat.*, 1961, 2(5), 304-307.—"The purpose of this communication is to point out that: 1) frequency, content, and later adverse reverberations of early fantasy are intimately related to specific deficiencies of opportunity for early environmental experiences and to distortion of reality communicated thru parental attitudes, conceptions, and patterns of behavior, and 2) it is pertinent to re-emphasize the therapeutic value of reclaiming these fantasies to consciousness and recognizing their relationships to early experiences and current functioning."—*D. Prager.*

5058. Collier, Mary Jeffery. (Kalamazoo Coll.) **The psychological appeal in the Cinderella theme.** *Amer. Imago*, 1961, 18(4), 399-411.—College women whose favorite childhood story was Cinderella attributed its childhood appeal to its generally wish-fulfilling character; the romantic love theme; the heroine's triumph over stepmother and stepsisters; her attractiveness, magically enhanced; and her eventual mastery of self and environment. As adults, they stressed the story's literary merits and moral truths and found it considerably less attractive except for presentation to children.—*W. A. Varvel.*

5059. Dorfman, Donald D., & Zajonc, Robert H. (U. Michigan) **Some effects of sound, background brightness, and economic status on the perceived size of coins and discs.** *J. abnorm. soc. Psychol.*, 1963, 66(1), 87-90.—"Rich" and "poor" children estimated the size of coins and discs under sound vs. no sound conditions and 2 levels of background brightness. Contrary to prediction, no relation was found to exist between sound level and size estimation, although such a relation did exist for background brightness. The findings failed to replicate the data of Bruner and Goodman, whereas they were in substantial agreement with those of Carter and Schooler. These results were as follows: (a) large coins tended to be judged larger, and small coins judged smaller than neutral discs of comparable size; and (b) no differential effect was observed on the

estimations of coins and discs as a function of economic status. There was, however, a reliable tendency for the children of lower economic status to overestimate both coins and discs when compared with those of higher status. (17 ref.)—*Journal abstract*.

5060. Freitas, Euridice. Dinamicas da personalidade. [Personality dynamics.] *Arqu. Brasil. Psicotec.*, 1960, 12(3), 71-76.

5061. Garretson, Wynona S. (State U. Iowa) The consensual definition of social objects. *Sociol. Quart.*, 1962, 3, 107-113.—A consistent relationship was found between the type of answers given to the question, "Who am I?" and the question, "What is —?" where the blank was filled by the name of a social group to which the respondent belonged. Those persons describing themselves in terms of directly understandable social and classificatory attributes also described their groups the same way. Those persons emphasizing idiosyncratic attributes in their self-definitions also tended to mention more idiosyncratic aspects of their social groups.—K. E. Davis.

5062. Goldberger, L. (New York U.) The isolation situation and personality. In G. Nielson (Ed.), *Proceedings of the International Congress of Applied Psychology. Vol. 2. Personality research* (see 37: 4117). Pp. 128-143.—Some general and specific effects of perceptual isolation are described and the role of individual differences and personality in determining behavior discussed. (48 ref.)—B. T. Jensen.

5063. Gynther, M. D., Miller, F. T., & Davis, H. T. (South Carolina State Hosp.) Relations between needs and behavior as measured by the Edwards PPS and Interpersonal Check List. *J. soc. Psychol.*, 1962, 57(2), 445-451.—This study was designed to investigate the relations between scores on the Edwards PPS and the Interpersonal Check List (ICL), tests which are purported to measure needs and behavior, respectively. 95 undergraduate male students served as Ss. Significant, systematic relationships were found between scores on the 2 tests, suggesting that the relations between them are direct and, to some extent, predictable. For example, it was predicted and confirmed that the ICL Love variable is positively associated with EPPS needs Affiliation and Nurturance and negatively associated with needs Autonomy and Aggression. Extrapolation of these results to statements about the relations between needs and behavior may not be warranted due to the relative lack of objective support for such interpretation of the tests. The possibilities that the tests measure very nearly the same level of behavior or are both influenced by the social desirability factor were presented as alternative explanations of the results.—*Author abstract*.

5064. Hiltner, Seward, & Rogers, William R. (Princeton Theological Seminary) Research on religion and personality dynamics. *Relig. Educ.*, 1962, 57(4, Res. Suppl.), 128-140.—Interaction of personality dynamics and religion is discussed.—S. A. Walters.

5065. Joshi, Devki. Some adjustment mechanisms. *Shiksha*, 1962, 14(3), 117-121.—Adjustment mechanisms can be grouped as adjustment by defence, adjustment by withdrawing, adjustment in-

volving fear and repression, adjustment by ailments, and persistent nonadjustive reactions.—U. Pareek.

5066. Krishnamurthy, N. (All-India Inst. Mental Health) The Sankhya conception of personality. *Trans. All-India Inst. Ment. Hlth.*, 1961, 2, 115-121.—There are 2 distinct, though interdependent, entities postulated in the Sankhya system: (a) purusa (spirit), representing the psychic element, and (b) prakrti (nature), the physical element. Personality, therefore, consists of: (a) the experiencer or witness, (b) intellect or judgment derived from the primal cause, (c) ego-consciousness derived from intellect, (d) mind derived from ego, and (e) cognitive and conative organs.—J. DiGiovanni.

5067. Lindgren, H. C. (San Francisco State Coll.) Age as a variable in aversion toward food and occupations. *J. consult. Psychol.*, 1962, 26(1), 101-102.—"College students 21 and under tended to indicate dislike for more foods and more occupations than did students over 21. The tendency to reject foods was positively correlated with the tendency to reject occupations."—E. R. Oetting.

5068. Marlowe, D. (Dartmouth Coll.) Need for social approval and the operant conditioning of meaningful verbal behavior. *J. consult. Psychol.*, 1962, 26(1), 79-83.—Ss showing a high need for approval on the Marlowe-Crowne Social Desirability scale produce more positive self-references when these are verbally reinforced.—E. R. Oetting.

5069. McClelland, D. C. (Harvard U.) The achievement motive in economic growth. In G. Nielson (Ed.), *Proceedings of the XIV International Congress of Applied Psychology. Vol. 2. Personality research* (see 37: 4117). Pp. 60-80.—Need for achievement as indicated in children's readers was compared to national economic growth, and positive relationships were found even in Communist countries. Also studied were managers and professionals in several countries.—B. T. Jensen.

5070. Myers, Thomas I., Murphy, Donald B., Smith, Seward, & Windle, Charles. Experimental assessment of a limited sensory and social environment: Summary results of the HumRRO program. *HumRRO res. Memo.*, 1962, Task Pioneer IV. 38 p.—Based on a Human Resources Research Office presentation to the American Psychological Association in New York, September 1961, the summary deals with "retrospective evaluation, subjective stressfulness, intellectual efficiency, auditory vigilance, and reported visual sensations." Isolation, either dark-quiet or sensory and social, produces "boredom, restlessness, anger, stress, anxiety, disorientation, and vague physical symptoms" whose full significance is yet to be appraised.—R. Tyson.

5071. Palazzo, A. Sulla percezione di persone. [On person perception.] *Riv. Psicol. soc.*, 1962, 29(1), 13-41.—Empirical analysis of the peculiar characteristic of the cognitive relationship between the ego of the perceived and the ego of the perceiving persons.—L. L'Abate.

5072. Pongratz, L. J. Konfliktdimensionen in der psychologischen Behandlung. [Dimensions of conflict as a psychological concept.] *Psychol. Rdsch.*, 1962, 13(3), 192-198.—A 3-dimensional conflict space is mapped out with retardation-acceleration, individuality-conformity, and aspiration-resignation

as poles of the principal axes of the space. Normal persons are thought of as swinging elastically within the space while disturbed persons tend to cling to one of the poles.—*W. J. Koppitz.*

5073. **Riccio, D., & Sbandi, M.** *Modalità di reazione alle frustrazioni e capacità di inserimento sociale.* [Modalities of reaction to frustration and capacity for social adjustment.] *Riv. Psicol. soc.*, 1962, 29(1), 59-67.—Ss with deviant reactions to frustration show difficulties in social adjustment.—*L. L'Abate.*

5074. **Sacher, H.** (Universitäts-Nervenklinik, Erlangen, Germany) *Grundlagen und Grundbegriffe einer Regulierungstheorie des Moralcharakters.* [Foundations and basic concepts of a regulation theory of the moral character.] *Z. exp. angew. Psychol.*, 1962, 9(2), 281-316.—The regulation theory (see 35: 4965) is further substantiated by research findings in general physiology and biosociology. Supplementary definitions of terms and a schematic presentation of the 1st and 2nd levels of the regulation model are added.—*W. J. Koppitz.*

5075. **Shlien, John M.** (U. Chicago) *The self-concept in relation to behavior: Theoretical and empirical research.* *Relig. Educ.*, 1962, 57(4, Res. Suppl.), 111-127.—A review of the controversy regarding the self-concept and a discussion of problems of measurement associated with study of values by means of self-concept approach.—*S. A. Walters.*

5076. **Shaw, D. M., & Campbell, E. Q.** (U. North Carolina) *Internalization of a moral norm and external support.* *Sociol. Quart.*, 1962, 3, 57-71.—210 male freshmen at Duke University and the University of North Carolina reported their parents' feelings about their use of alcohol, their own drinking behavior, their informal associations and religious attendance, and responded to a series of hypothetical dilemmas involving the use of alcohol. Those students who drank without parental approval were similar to those students who drank without parental opposition in the amount of drinking, their informal association, and their low frequency of attendance at religious services. Those who drank without parental approval were, however, similar to nondrinkers in their religious training and attendance prior to college and in some of their responses to hypothetical dilemmas. It was concluded that those who drank, even though they felt moral pressure not to, tended to seek support through their informal association for their deviant behavior.—*K. E. Davis.*

5077. **Yates, Aubrey J.** (U. Western Australia) *A comment on Bookbinder's critique of "Symptoms and Symptom Substitution."* *Psychol. Rep.*, 1962, 11(1), 102.—A discussion of criticisms (see 37: 1475) of a previous paper by Yates (see 33: 9431).—*B. J. House.*

Anxiety

5078. **Bergs, L. P., & Martin, B.** (U. Wisconsin) *The effect of instructional time interval and social desirability on the validity of a forced-choice anxiety scale.* *J. consult. Psychol.*, 1961, 25(6), 528-532.—Female college students show a high relationship between a forced choice anxiety scale scored to reduce variance from social desirability and a composite score in a mild stress situation based on skin conductance, blood pressure, and anx-

iety ratings. Relationship is highest when the directions specify "last six months." Correlations were not significant when scoring included social desirability. Males show no relationship.—*E. R. Oetting.*

5079. **Bowlby, John.** *Die Trennungsangst.* [Separation anxiety.] *Psyche, Stuttgart*, 1961, 15(7), 411-464.—English version published in the *International Journal of Psycho-Analysis* (see 35: 2309).—*E. W. Eng.*

5080. **Craddick, R. A., Deipold, W. D., & Cavas, P. D.** (U. North Dakota) *The relationship of shading on the Draw-a-Person Test to Manifest Anxiety scores.* *J. consult. Psychol.*, 1962, 26(2), 193.—Ratings of shading and ratings of anxiety from the test are reliable and related. MA is not related to either.—*E. R. Oetting.*

5081. **Di Lollo, Vincent, & Lumsden, James.** (U. Western Australia) *The Crespi effect: A replication.* *Psychol. Rep.*, 1962, 11(1), 25-26.—"Elation and depression effects were demonstrated using appropriate controls. The results do not support Spence's objections regarding the genuineness of elation effects."—*B. J. House.*

5082. **French, John W.** (Educational Testing Service) *Effect of anxiety on verbal and mathematical examination scores.* *Educ. psychol. Measmt.*, 1962, 22(3), 553-564.—To determine whether excessive anxiety reduces the validity of a test, a "relaxed" test was given before or after the College Board aptitude test. Additional data were obtained from a broad questionnaire, 2 scales measuring generalized anxiety, and grades in 4 high school subjects. "The results show the effects of anxiety to be small. A comparison of scores on the relaxed tests with alternate test forms taken with the college entrance test indicates no effect of anxiety for boys, while anxiety seems to be associated with a slight but significant improvement of girls' mathematical scores relative to their verbal scores."—*W. Coleman.*

5083. **Hammes, J. A., & Osborne, R. T.** (U. Georgia) *Discrimination of manifest anxiety by the Structured-Objective Rorschach Test.* *Percept. mot. Skills*, 1962, 15(1), 59-62.—38 low-anxious and 31 high-anxious Ss selected on the basis of a manifest anxiety scale were given the Structured Objective Rorschach Test. Of 26 Rorschach factors, only 2 were found to be discriminative, Dd and S. The Fch factor, presumably a direct measure of anxiety, was nondiscriminative.—*W. H. Guertin.*

5084. **Robbins, Paul R.** (United States Dept. Health, Education & Welfare) *Some explorations into the nature of anxieties relating to illness.* *Genet. Psychol. Monogr.*, 1962, 66(1), 91-141.—A series of exploratory studies was conducted to learn more about the nature of anxieties people hold in regard to illness. The studies employed the intensive interview method and a provisional psychometric instrument called the Medical Attitude Inventory (MAI). From the intensive interview data, it was learned that there were considerable differences in the way the several diseases were perceived. A factor analysis of the MAI was undertaken which yielded 8 factors. 2 of these factors could not be meaningfully identified, 3 of the factors dealt with specific diseases, and 1 factor dealt with the concept of curability of illness.—*Author abstract.*

5085. Scheier, I. H., Cattell, R. B., & Sullivan, W. P. Predicting anxiety from clinical symptoms of anxiety. *Psychiat. Quart. Suppl.*, 1961, 35(1), 114-126.—2 studies, 1 of 186 and the 2nd of 86 normal college students. A total anxiety-symptom checklist (95 items) score correlated significantly with the anxiety criterion. About $\frac{1}{2}$ of the single anxiety symptoms, however, did not correlate significantly with the anxiety criterion index, perhaps because they were really not specifically related to anxiety but were associated with it as a result of other personality factors.—D. Prager.

5086. Shoenberger, Richard W., & Harris, C. Stanley. Subjective and behavioral "certainty" in a male population. *USN Sch. Aviat. Med. res. Rep.*, 1962, Proj. MR005.13-5001, Subtask 12, Rep. No. 3. ii, 5 p.—In an investigation of the generality and relationship to manifest anxiety of several tests which purport to measure subjective and behavioral "certainty," Wolff, using female Ss, obtained largely negative results. This investigation extends Wolff's study, using male Ss. 2 "subjective certainty" measures, 2 "behavioral certainty" measures, and a manifest anxiety measure were used. Results with behavioral certainty were again essentially negative. However, unlike Wolff's results, statistically significant correlations were obtained among the subjective certainty measures and anxiety, presenting somewhat more evidence for the generality and relationship to manifest anxiety of subjective certainty among males than among females.—USN SAM.

Defenses

5087. Roth, N. (NYC) Ego defenses and perception. *Percept. mot. Skills*, 1962, 15(1), 117-118.—Particular psychiatric syndromes employ characteristic mechanisms of defense of the ego, which evoke specific perceptual dysfunction. In the case of vision, such perceptual defect is readily detected in dreams and verified in waking hours. An illustrative example is given of the defense of isolation and its accompaniment by impairment of stereoscopy and of the appreciation of perspective.—W. H. Guertin.

5088. Rouart, J. La temporisation comme maîtrise et comme défense. [Temporizing as control and as defense.] *Rev. Franc. Psychanal.*, 1962, 26(4), 383-422.—Behavior changes and ideas of time relations have long been seen simply as modifications in the nervous centers. Phenomenological studies, making a distinction between transitory and immanent time, indicate that time disturbances point to severe psychotic illness. The present study traces the genesis of the earliest manifestations of time integration in infancy. Clinical experience reveals particular time disturbances in obsessional neuroses. The frustration of oral expectation in infants predisposes to subsequent faulty phase development.—G. Rubin-Rabson.

5089. Zajonc, Robert B. (U. Michigan) Response suppression in perceptual defense. *J. exp. Psychol.*, 1962, 64(3), 206-214.—"The role of stimuli and responses in perceptual defense was examined by first obtaining recognition thresholds and GSRs to taboo and neutral words. Subsequently, Ss learned a paired-associate list with the original words serving as stimulus terms and a new set of words as response terms. Half of the neutral stimuli were

paired with neutral and half with taboo responses. The same was true of taboo stimuli. Following training, recognition thresholds and GSRs were again measured with one group required to indicate recognition by means of response terms and another by means of stimulus terms. Both recognition threshold and GSR were found to depend primarily on the response required of the Ss in indicating recognition.—J. Arbit.

PSYCHOANALYTIC THEORY

5090. Brückner, Peter. Sigmund Freuds Privatlektüre. [Freud's personal reading.] *Psyche, Stuttgart*, 1962, 15(12), 881-902.—In a review of source materials, references of Freud to his pleasure reading are noted. Special emphasis is given to Milton's *Paradise Lost*, Cervantes' *Don Quixote*, 18th-century England, Fielding's *Tom Jones*, and Sterne's *Tristram Shandy*.—E. W. Eng.

5091. Brückner, Peter. Sigmund Freuds Privatlektüre: Fortsetzung. [Freud's personal reading: Continuation.] *Psyche, Stuttgart*, 1962, 16(4), 721-743.—Discussion of Freud's reactions to his readings in Dickens, Thackeray, and Multatuli in terms of the development of his own thinking.—E. W. Eng.

5092. Dracoulides, N. N. (27 Hipiron, Athens, Greece) Interpretation psychanalytique d'un néographisme intégré à un néomorphisme. [Psychanalytical interpretation of a neographic word in a neomorphic drawing.] *Acta neurol. psychiat. Belg.*, 1962, 62, 250-263.—The author discusses G. Maccagnani and J. Bobon's recent paper (see 37: 1770). He considers that these drawings produce a therapeutic effect on the patient. He also gives examples of the verbal, plastic, and sensorial synergy in art and compares the "plastic signs" with the drawings of a Spaniard painter of sounds. This paper ends with a comparison between modern art and the manifestations of glossomania as exposed in another article of Bobon. The author concludes that puerility, absurdity, and abstractedness, as frequently found in modern art, are reactions for compensation of the collective anxiety of our time.—V. Sanua.

5093. Freud, Sigmund. (Trans. by J. Strachey) *The ego and the id*. New York: Norton, 1962. 80 p. \$.95 (paper).—A paperback edition of a book published in 1960.—C. T. Morgan.

5094. Heilbrunn, G. The neurobiologic aspect of three psychoanalytic concepts. *Comprehen. Psychiat.*, 1961, 2(5), 261-268.—Recent neurobiological findings affirm the patency of the pleasure-pain principle, repression, and the unconscious. At the same time these findings point in the direction from which basic innovations and modifications may be expected, namely quantification and eventually technical manipulation to expedite, implement, and/or substitute certain psychotherapeutic measures.—D. Prager.

5095. Kuiper, P. C. Probleme der psychoanalytischen Technik in bezug auf die passiv-feminine Gefühlseinstellung des Mannes, das Verhältnis der beiden Ödipuskomplexe und die Aggression. [Problems of psychoanalytic technique relative to the male passive-feminine attitude, the relation of the two Oedipus complexes, and aggression.] *Psyche, Stuttgart*, 1962, 16(6), 321-344.—Interpretation to men of their passive feminine attitude as a regressive defen-

sive maneuver calls for tact, directness, and timing. Like all interpretations it should be guided by how much the patient can accept at the time, and how much meaningful evidence there is in the therapy material for the interpretation at the time. Interpretation is made more difficult by the manifold alternations of sexual and aggressive impulses and positive and negative Oedipus complexes between positions of defense and drive gratification.—*E. W. Eng.*

5096. Kunz, Hans. *Die eine Welt und die Weisen des In-der-Welt-Seins: Teil I.* [The one world and the modes of being-in-the-world: Part I.] *Psyche, Stuttgart*, 1962, 16(1), 58-80.—Comments on the presuppositions of existence-analytic "anthropological" interpretations of psychopathological phenomena. The criterion for the validity of existence analytic is the sense of one's own existence revealed in the course of one's self-understanding as a human being, and not merely the understanding of Heidegger's concepts and their relations.—*E. W. Eng.*

5097. Kunz, Hans. *Die eine Welt und die Weisen des In-der-Welt-Seins: I. Fortsetzung.* [The one world and the modes of being-in-the-world: I. Continuation.] *Psyche, Stuttgart*, 1962, 16(2), 142-159.—By his assertion that reality is no less present in the dream than in waking life, Medard Boss gives up the integrality of the world to the plurality of forms of being. This is an instance of the difficulties of stating our understanding of the functioning of infra-ego cognitive processes in the terms characterizing conscious and individuated ego activities.—*E. W. Eng.*

5098. Kunz, Hans. *Die eine Welt und die Weisen des In-der-Welt-Seins: I. Fortsetzung.* [The one world and the modes of being-in-the-world: I. Continuation.] *Psyche, Stuttgart*, 1962, 16(3), 221-239.—The "integrity" of things is not to be confused with objects "on hand" derived from the means "at hand" as developed in our encounters within the world. The objectivated world of things "on hand" has emerged out of the active intensions of man in his denial of his openness and temporality. "Being," like "nothingness," is an achievement of human thought, even though the world of things in their suchness is simply given for us, and is by no means something achieved.—*E. W. Eng.*

5099. Kunz, Hans. *Die eine Welt und die Weisen des In-der-Welt-Seins: I. Fortsetzung.* [The one world and the modes of being in the world: I. Continuation.] *Psyche, Stuttgart*, 1962, 16(6), 378-400.—Questioning, doubting, denying are actions of thought which confront the perceived, imagined, believed, or supposed existence with its possible "not being" or "not being so." Such actions are ultimately grounded in the life-destroying power of factual death, which however, in accord with its provisionally inherent presence, manifests itself only as a potentially negative power. In this characteristic of human being is also rooted our distance to encounters with existence within the world.—*E. W. Eng.*

5100. Meng, Heinrich. *War Buddha schizophren?* [Was Buddha schizophrenic?] *Psyche, Stuttgart*, 1962, 16(6), 374-377.—In answer to Lange-Eichbaum's question, it is evident that the Buddhist meditative trance, although involving a withdrawal of libido from the object world, is nonetheless a way to

the overcoming of death anxiety and realization of the meaning of the past. Buddha and Freud both discovered a new language leading to greater understanding of the self and others.—*E. W. Eng.*

5101. Mitscherlich-Nielsen, M. *Probleme der psychoanalytischen Technik in bezug auf die passiv-feminine Gefühlseinstellung des Mannes, das Verhältnis der beiden Ödipuskomplexe und die Aggression: Korreferat.* [Problems of psychoanalytic technique relative to the male passive-feminine attitude, the relation of the two Oedipus complexes, and aggression: Co-report.] *Psyche, Stuttgart*, 1962, 16(6), 345-354.—Conflicts and reactions can only be successfully analyzed where, on the one hand, they are intensively experienced in awareness, and where, on the other hand, we succeed in securing for the patient distance from them by working them through.—*E. W. Eng.*

5102. Pellegrino, Helio. *Versuch einer Neu-Interpretierung der Ödipussage.* [A new interpretation of the Oedipus legend.] *Psyche, Stuttgart*, 1961, 15(7), 475-485.—Oedipus' hatred is basically directed to the mother, by whom he feels himself to have been thrown helpless into existence. So in the legend it is his mother Jocasta who agrees to his death by exposure as an infant, and who, in the end, finally kills herself. The Oedipus complex as described by Freud is an attempt to master this insecurity with the mother figure at a more advanced level of development.—*E. W. Eng.*

5103. Pieper, William J., & Muslin, Hyman L. (U. Illinois Coll. Med.) *A further note on the primal instinct theory.* *Amer. Imago*, 1961, 18(4), 383-390.—In his operational concepts, Freud was a dualist, but his theoretical bias rested on a physical-chemical monistic conception of man. The concepts of primal life and death instincts can not be included in an empirically oriented scientific psychology. These are "issues more properly philosophical, specifically metaphysical, and their verisimilitude has to be judged on this basis and not by the evidence biological data affords." The clinical phenomena underlying these problems are still in need of explanation.—*W. A. Varvel.*

5104. Scheffen, Albert E. *A common defect in extrapolation: Explaining psychic and social processes in terms of feeding.* *Psychiatry*, 1961, 24(2), 143-152.—"Faulty extrapolations are characteristic of psychotic and neurotic thinking, but they are by no means uncommon in everyday conjecture and in psychiatric theory. One extremely common type of faulty extrapolation [is examined]. . . . processes such as communication, learning, and emotion operate in the same manner as ingestion and incorporation."—*C. T. Morgan.*

5105. Zulliger, Hans. *Eine infantile Teufels-neurose.* [An infantile neurosis of demoniacal possession.] *Psyche, Stuttgart*, 1962, 16(3), 161-175.—In the effective psychoanalytic treatment of a 4-year-old boy by means of play therapy, his obsessive "devil" turned out to be a castrating parental fusion of a penis-endowed mother and the "bad father." Similarly, in the historical witch cult the devil endows his followers with supernatural powers and a substitute penis (broom or pitchfork) for which they must pay with loss of salvation, i.e., be once more castrated.—*E. W. Eng.*

PHYSIOLOGICAL CORRELATES

5106. Adsett, C. A., Schottstaedt, W. W., & Wolf, S. G. (U. Oklahoma Medical Cent., Oklahoma City) **Changes in coronary blood flow and other hemodynamic indicators induced by stressful interviews.** *Psychosom. Med.*, 1962, 24(4), 331-336.—30 male Ss, aged 29-69, were studied before and during stressful interviews. Coronary blood flow, blood pressure, and pulse rate, cardiac output and peripheral resistance were calculated. Changes in cardiac output, peripheral resistance, and coronary blood flow corresponded with judgments of the S's feeling states. Coronary flow increased in association with both anger and anxiety. (22 ref.)—W. G. Shipman.

5107. Cohen, H. (Childrens Hosp., Boston, Mass.) **Psychological test findings in adolescents having ovarian dysgenesis.** *Psychosom. Med.*, 1962, 24(3), 249-256.—10 adolescent girls with ovarian dysgenesis were studied by means of a Wechsler Intelligence Test, Draw-A-Person, TAT, and Rorschach. Average IQ was 96, with verbal higher than performance. The figure drawings were infantile. The TAT and Rorschach evoked vague, easy responses and indicated an avoidance of angry and/or sexual feelings.—W. G. Shipman.

5108. Davis, J., Morrill, R., Fawcett, J., Upton, V., Bondy, P. K., & Spiro, H. M. (Yale U. School Medicine, New Haven, Conn.) **Apprehension and elevated serum cortisol levels.** *J. psychosom. Res.*, 1962, 6(2), 83-86.—"Plasma hydrocortisone levels of 15 volunteer Ss were measured in a 'first time' situation when the Ss were unfamiliar with the blood drawing situation and control situations where the Ss were accustomed to the blood drawing procedures. There was a significant increase in the blood hydrocortisone levels in the 'first time' situation." The Leary Interpersonal Adjective Check List indicated that "first time" reactors were low on the following dimensions: managerial-autocratic, competitive narcissistic, and aggressive-sadistic.—W. G. Shipman.

5109. Gottschalk, L. A., Kaplan, S. M., Gleser, Goldine C., & Winet, Carolyn M. (U. Cincinnati Medical School) **Variations in magnitude of emotion: A method applied to anxiety and hostility during phases of the menstrual cycle.** *Psychosom. Med.*, 1962, 24(3), 300-310.—The sensitivity of a newly developed method of measuring immediate affect levels from small samples of speech is demonstrated in a study to detect the effect on personality of the biological rhythms of the menstrual cycle in 5 Ss. There was a tendency for the levels of anxiety and hostility inwards to decrease transiently around the time of ovulation and for these to individually vary. The presumed cause is some hormonal change not yet ascertained.—W. G. Shipman.

5110. Lairy, G. C. (Inst. National d'Hygiene) **EEG et neuropsychiatrie infantile.** [EEG and child neuropsychiatry.] *Psychiat. Enfant*, 1960, 3(2), 525-608.—Analysis of EEG records of children at various stages of maturation failed to reveal a specific relationship with intellectual, psychomotor, and personality factors. This is due to the fact that EEG records are obtained while the patient is in a state of psychomotor and psychosensory inactivity, yet are correlated with psychological variables interpreted in

behavioral terms. Interpretation of children's EEGs should be done in terms of inner states and the experimental situation as well. The physiological plasticity of the child's rhythmic pattern should also be taken into consideration.—R. Naar.

5111. Sloane, R. B., Inglis, J., & Payne, R. W. (Queen's U., Kingston, Ontario, Canada) **Personal traits and maternal attitudes in relation to blood lipid levels.** *Psychosom. Med.*, 1962, 24(3), 278-285.—48 healthy, college men, with a normal distribution of fasting blood cholesterol levels, were studied by psychiatric interview and self ratings. Their mothers did a child-rearing attitudes questionnaire. The psychiatrist's prediction of lipid level, from personality, correlated .58. High lipid levels were significantly associated with high ratings of needs for social achievement, autonomy, ambition, hostility, and inflexibility. The high cholesterol students rated themselves low in ambition. Their mothers favored a strict upbringing. (28 ref.)—W. G. Shipman.

THERAPY & GUIDANCE

5112. Flach, F. F. **A study of the reliability of the Social Behavior Chart.** *Comprehen. Psychiat.*, 1961, 2(2), 121-128.—28 of the 52 items on the Social Behavior Chart proved to be statistically reliable in providing emotional and behavioral profiles of 44 patients during the entire ward day. It is emphasized that these findings do not clarify the validity of the behavioral items.—D. Prager.

5113. Kanner, L. **American contributions to the development of child psychiatry.** *Psychiat. Quart. Suppl.*, 1961, 35(1), 1-12.—Historical chronicle of names and events in American child psychiatry.—D. Prager.

5114. Kouretas, D. **Aspects modernes des cures psychothérapiques pratiquées dans les sanctuaires de la Grèce antique.** [Modern aspects of psychotherapeutic cures practised in the sanctuaries of ancient Greece.] *Rev. Franc. Psychanal.*, 1962, 26(2-3), 299-309.—Illness was seen as punishment of divine origin. The limitations of medical science allowed only psychosomatic treatment by the priesthood. Starvation for the induction of trance states, liberal ablutions for purification, diverse fumigations to induce torpor and dreams, suggestion, distractions and games, sleeping in places sacred to the ill and near revered statues, apparitions, oracles, visions, etc., were part of the therapeutic armamentarium.—G. Rubin-Rabson.

5115. Masserman, Jules H. (Ed.) **Science and psychoanalysis. Vol. 5. Psychoanalytic education.** New York: Grune & Stratton, 1962. xi, 332 p. \$9.75.—Theoretical articles on Freud and the history of ideas, on biological sciences and human behavior, on values and truth in psychoanalysis, and on complementarity in psychodynamic theory are followed by articles on psychosomatic and social concepts in psychoanalytic education as well as research and communication processes in psychoanalytic education. Part III includes articles on psychoanalytic supervision; integration of psychiatric and psychoanalytic training; and on duration, perspectives, and lessons of psychoanalytic training. Part IV includes articles on identity values, femininity, and on psychoanalytic therapy as an educational process.—D. Prager.

5116. Rado, S. Towards the construction of an organized foundation for clinical psychiatry. *Comprehen. Psychiat.*, 1961, 2(2), 65-73.—Adaptational psychodynamics, behavioral physiology, behavioral genetics, physiological psychodynamics, ethological dynamics, physiological psychology, experimental psychology, and sociological, anthropological, and historical psychodynamics are all sciences basic to clinical psychiatry. Without psychodynamics, behavioral science has no worthwhile problems, and without physiology, it has no binding solutions. The behavioral physiologists will pick the psychodynamic scheme best suited for psychophysiological correlation.—D. Prager.

5117. Rioch, David M. The sense and the noise. *Psychiatry*, 1961, 24(2, Suppl.), 7-18.—"The field of psychiatry is entering a stage in which it will not be sufficient to learn only a technique of therapy or a system of analyzing behavior. Certain features of behavior are relevant to certain goals, others to other goals, and for any particular goal much that might be done in the name of therapy or that might be investigated or measured in the name of research is irrelevant or redundant."—C. T. Morgan.

5118. Studer-Salzmänn, Ulrike. (Ed.) Beiträge zur Diagnostik, Prognostik und Therapie des Schicksals. [Contribution to diagnosis, prognosis and therapy in the analysis of destiny.] *Beih. Schweiz. Z. Psychol. Anwend.*, 1962, No. 43. 280 p.—The 2nd Colloquium of the International Society for Research in the Psychology of Destiny is reported in 27 papers representing 9 countries. In Section I on therapy and prognosis, an 83% success rate in Szondi predictions is reported. Drive diagnosis (Section II) is treated statistically, particularly with regard to retardation. Sections III and IV contain highly speculative papers on psychosomatics, energetics, and cybernetics.—J. C. Brengelmann.

5119. Vance, Forrest L., & Volsky, Theodore C., Jr. (U. Minnesota) Counseling and psychotherapy: Split personality or siamese twins? *Amer. Psychologist*, 1962, 17(8), 565-570.—Psychotherapy is a process "implemented by interview techniques which seeks to alter the client's receptor or response system in such a way that healthy behavior will occur in situations where unhealthy behavior has been typical." An attempt will be made "to describe a kind of nonpathological emotional distress that is clearly the special province of the counseling psychologist." We "see psychotherapy and at least one type of counseling, psychological discordance reduction, as Siamese twins. These processes are two distinct but closely related entities that share some vital concerns. Perhaps one of both of these twins have split personalities, but the distinction between them is not delusional."—S. J. Lachman.

MEDICAL THERAPIES

5120. Bolter, Sidney. The psychiatrist's role in therapeutic abortion: The unwitting accomplice. *Amer. J. Psychiat.*, 1962, 119(4), 312-316.—Psychiatrists have no more right to break the law than any other citizen. They should remember this when called upon as consultants to make decisions concerning therapeutic abortion. They should consider grounds for contraindications rather than for indica-

tions to therapeutic interruption of pregnancy.—N. H. Pronko.

5121. Gruvstad, Mats; Kebbon, Lars, & Löf, Bengt Ax:son. (U. Uppsala, Sweden) Changes in mental functions after induced hypotension: Immediate and late effects of operations under hypotensive anesthesia on cerebral functions. *Acta psychiat. Scand., Copenhagen*, 1962, 37(Suppl. No. 163), 112 p.—Hypotensive anesthesia causes more impairment in mental functions than normotensive anesthesia, both on psychometric and psychiatric assessment. The degree of the impairment is dependent to a certain extent on the degree and duration of the induced hypotension. Functions involving mental speed and ability to shift seem to be most affected. The deterioration is small in comparison with the mental reactions which always follow major operation. A slight amount of deterioration can still be detected in some psychometric results a year or more after the operation. The impairment in mental functions after induced hypotension does not seem to have any effect of practical importance on the S's adjustment to society, working capacity, or subjective well being. These conclusions are based on 93 patients with herniation of lumbar discs; of these 32 were operated under hypotensive anesthesia using thimethaphan, 39 had had normotensive anesthesia, and the rest were unoperated controls. Extensive case reports are included. (150 ref.)—R. Kaelbling.

Drug Therapy

5122. Azima, H., Vispo, R. H., & McKenna, R. Anaclitic therapy induced by drugs. *Comprehen. Psychiat.*, 1961, 2(5), 281-293.—Anaclitic therapy including prolonged drug-induced light sleep aims to produce a massive and rapid regression to infantile, particularly oral, modes of object relations. The 2 parameters of technique are healthy mothering gratifications offered plus anaclitic interpretations. 10 patients studied from 2 to 4 years were 3 ulcerative colitis, 1 peptic ulcer, 1 asthma, and 5 psychoneurotics with a predominance of anxiety. Anaclitic therapy was a last resort. Except for one of the psychoneurotics and the asthmatic, all showed moderate to marked improvement on anaclitic therapy. The peptic ulcer patient is presented in detail to demonstrate the technique.—D. Prager.

5123. Bakker, C. B., & Amini, F. B. Observations on the psychotomimetic effects of sernyl. *Comprehen. Psychiat.*, 1961, 2(5), 269-280.—1 group consisted of 5 psychiatrists, 1 psychologist, and 1 graduate art student. A 2nd group consisted of 25 carefully selected prisoners. Placebo controls were used. Sernyl slowed thinking, changed body image and perceptions of outside world, resulting in stereotyped behavior, and impaired concentration and the ability to react actively to incoming stimuli. With toxic doses, catatonic-like stupor is produced. Direct comparison of model psychoses and spontaneous psychoses is not fruitful, but the use of drugs for investigation of CNS function and its behavioral correlates appears promising.—D. Prager.

5124. Björklund, Stig. (Sidsjön Hosp., Sundsvall, Sweden) Examens cliniques-chimiques de malades traités par la lévomépromazine (nozinan). [Clinical and chemical examinations of patients treated with levomepromazine (nozinan).] *Encephale*,

1962, 51(2), 181-197.—Clinical results are presented on 3 groups of patients: (a) 35 cases which were minutely examined for somatic complications, (b) 34 cases treated continuously for 11 months, and (c) a general group of 704 patients treated during the year. Only 2 cases of granulocytopenia were produced, and no symptoms of severe hepatic lesions were observed. No renal complications were observed. Moderate symptoms of Parkinsonism were observed in 2 cases. (17 ref.)—*W. W. Meissner*.

5125. Brooks, G. W., & Weaver, L. A., Jr. Some relations between psychiatric and psychomotor behavior changes associated with tranquilizing medications. *Comprehen. Psychiat.*, 1961, 2(4), 203-210.—26 severely and chronically disturbed schizophrenic women were placed successively on placebo, an experimental tranquilizer (SU-3822), trifluoperazine, and trifluoperazine plus antiparkinsonism agents. Psychiatric status steadily deteriorated under placebo and SU-3822 but improved with the trifluoperazine and antiparkinsonism medication. Reaction time tests and steadiness tests were sensitive to changes in psychiatric status but did not reflect the effects of the muscular dysfunction. On the other hand, the pursuit rotor, pegboard, and horizontal alternation tests were not sensitive to change in psychiatric status but did indicate effects resulting from muscular dysfunction.—*D. Prager*.

5126. Busfield, B. L. Jr., & Wechsler, H. (Massachusetts Mental Health Cent., Boston) Salivation rate: A physiologic correlate of improvement in hospitalized depressed patients treated with 3 antidepressant medications. *Psychosom. Med.*, 1962, 24(4), 337-342.—68 severely depressed hospitalized psychiatric patients were assessed independently by 2 psychiatrists. Each S was randomly assigned to a 4-8 week treatment of marplan, nardil or tofranil using a double-blind procedure. Those who improved had a higher pretreatment salivation rate, by the cotton dental role technique. Subjective perception of dry mouth does not correlate with treatment outcome.—*W. G. Shipman*.

5127. Dedieu-Anglade, G. Expérimentation du 3-3 pentaméthylène-4-hydroxybutyrate de sodium (S. 186). [Investigation of sodium 3, 3-pentaméthylène-4-hydroxybutyrate (S. 186).] *Encephale*, 1962, 51(2), 149-165.—The physical properties, toxicology, pharmacodynamics, and experimental results of the stimulating effect of S. 186 on the CNS are described. Clinical effectiveness is reviewed and the results of 28 cases (23 improved) are reported. The drug is effective in depressions, producing greater intellectual efficiency, a feeling of physical well-being, and permitting greater emotional control. The drug is classified as a thymoanaleptic, with action similar to that of imipramine. (16 ref.)—*W. W. Meissner*.

5128. Freyhan, F. A. On classifying psycho-tropic pharmaca. *Comprehen. Psychiat.*, 1961, 2(5), 241-247.—Classifications proposed by Delay and Kline are discussed. Delay distinguishes the psycholeptics as including hypnotics, neuroleptics, and tranquilizers. The psycholeptics depress mental activity. The psychoanaleptics which stimulate mental activity include drugs which are antihypnotic such as amphetamines and drugs which elevate and regulate mood level such as imipramine and MAO-inhibitors. Finally, the psychodysleptics are drugs causing devia-

tions of mental activity such as delusional aberrations, dream states, hallucinations, confusion, etc. Kline's classification consists of psychoinhibitors, psycho-activators and psychotomimetics. Freyhan submits that Delay's classification be adapted as the basic model for further consideration.—*D. Prager*.

5129. Lang, A., & Laroche, B. Réflexions sur l'utilisation du traitement au majoétil en milieu psychiatrique musulman. [Reflections on treatment with majoétil in Moslem psychiatry.] *Encephale*, 1962, 51(2), 166-180.—Treatment of 85 male Moslems (18-46 years old), suffering from a variety of neurotic and psychotic syndromes, with thioproperazine resulted in several side-effects, namely acceleration of pulse, hypothermia, hypotension, and hyper-sudation. Detailed observations of 2 cases with fatal outcome are included. Thioproperazine has a marked anti-psychotic activity, which is most effective and rapid deliria and chronic hallucinatory states, and most spectacular in hysteria.—*W. W. Meissner*.

5130. Pauk, Z. D., & Shagass, C. Some test findings associated with susceptibility to psychosis induced by lysergic acid diethylamide. *Comprehen. Psychiat.*, 1961, 2(4), 188-195.—Of 14 psychiatric patients receiving at least 3 doses of LSD, up to 9 micrograms per kilogram per dose, only 7 showed psychosis. Susceptibility to the LSD psychosis seemed to be reflected chiefly in early disturbance of performance in drawing tasks.—*D. Prager*.

5131. Pravdina-Vinarskaia, E. N., & Rudaia, G. B. (Inst. Neurosurgery, USSR Acad. Medical Sciences) Vosstanovitel'noe obuchenie pri narusheniakh gnostiko-prakticheskikh i rechevykh funktsii i "rastormazhivaiushche" lechenie galantaminom. [Rehabilitation training in cases of agnosic, apraxic, and aphasic dysfunctions and "disinhibitory" therapy with galantamine.] *Dokl. Akad. Pedagog. Nauk RSFSR*, 1961, No. 6, 113-116.—19 adult Ss (no age reported) were administered, during rehabilitation training, different doses of galantamine. The effect was a general improvement in Ss' attitudes and dispositions. The drug seems to be acting both on the cortex and on the reticular formation.—*A. Cuk*.

5132. Roulet, Norman; Alvarez, Robert R., Duffy, J. Patrick; Lenkoski, L. Douglas, & Bidder, T. George. (University Hosp., Cleveland, O.) Imipramine in depression: A controlled study. *Amer. J. Psychiat.*, 1962, 119(5), 427-431.—"The antidepressant drug imipramine was evaluated by means of a double blind study. Therapeutic results were assessed on the basis of a rating scale, psychological tests, and clinical course. Differences favoring the drug were found in some of the psychological tests, but in no clinical area were there significant differences between drug and placebo."—*N. H. Pronko*.

5133. Sundararaj, N. (All-India Inst. Mental Health) Some features of drug use among mental patients. *Trans. All-India Inst. Ment. Hlth.*, 1961, 2, 78-83.—A comparative study of a group of drug users with psychiatric symptoms with a group of mental patients not using drugs. Factors of age, economic status, occupation, marital status, etc., were considered. Patients using drugs episodically seemed to be more prone to suicidal attempts. Drug use was more in the married class and in the group of pa-

tients drawn from the illiterate class. The patients in the 4th and 5th decades showed a predilection to drug use. Patients using drugs seemed to be mostly in the labor and miscellaneous groups. Drug use was more common among the nonschizophrenic patients.—*J. DiGiovanni.*

5134. Waldrop, F. N., Robertson, R. H., & Vourlekis, A. A comparison of the therapeutic and toxic effects of thioridazine and chlorpromazine in chronic schizophrenic patients. *Compreh. Psychiat.*, 1961, 2(2), 96-105.—2 groups of 71 females each, similar in age, duration of hospitalization, and symptoms, were treated with mellaril and thorazine for 13 weeks. The actions of the 2 drugs on symptoms and behavior of these patients was very similar. Side effects were also similar except for more severe extrapyramidal symptoms in the group on thorazine. Both groups showed significant improvement in symptoms and ward behavior as rated by psychiatrists and nurses.—*D. Prager.*

5135. Whitman, R. M., Pierce, C. M., Maas, J. W., & Baldridge, B. Drugs and dreams: II. Imipramine and prochlorperazine. *Compreh. Psychiat.*, 1961, 2(4), 219-226.—10 volunteer Ss were used. Imipramine significantly decreased the number of dreams per night and significantly increased the expression of hostility per word of dreams. Compazine increased the expression of heterosexuality and phenobarbital increased the expression of homosexuality in dreams. All 3 drugs increased the appearance of dependency and anxiety in dreams and decreased intimacy.—*D. Prager.*

5136. Wilcott, R. C., Helper, M. M., & Garfield, Sol. L. (Western Reserve U., Cleveland) Some psychophysiological effects of chlorpromazine on emotionally disturbed children. *J. nerv. ment. Dis.*, 1962, 135(3), 233-238.—The effects of chlorpromazine vs. placebo were studied upon autonomic activity and muscle tension of emotionally disturbed children. Results showed that at the resting level, chlorpromazine gave a decrease in autonomic activity (palmar conductance) and a rise in heart rate. Under aroused conditions the drug had no significant effect on either measure, nor did it have any effect on the resting level or reactivity of frontalis EMG.—*N. H. Pronko.*

5137. Woods, Grace E. (Bristol, England) Double-blind trial of carisoprodol. *Develpm. Med. child Neurol.*, 1962, 4(5), 499-506.—Clinical judgments by the physiotherapist, by the speech therapist, and by the class teacher suggest that, in the 19 children so studied, some improvement attributable to the use of carisopodol, was observed.—*T. E. Newland.*

Shock Therapy

PSYCHOTHERAPY

5138. Baron, F. (Harvard U.) Psychotherapy and creativity. In G. Nielson (Ed.), *Proceedings of the XIV International Congress of Applied Psychology. Vol. 4. Clinical psychology* (see 37: 4119). Pp. 26-49.—After discussing the difficulty of doing objective research in psychotherapy and expressing his reluctance to interfere with the process to get information, the author states that the same problem exists in research on creativity. He then refers

briefly to mushrooms and psilocybin as means of freeing oneself from restrictions and becoming creative.—*B. T. Jensen.*

5139. Berna, Jacques. Die Indikation zur Kinderanalyse. [Indications for child analysis.] *Psyche, Stuttgart*, 1962, 16(2), 81-99.—These factors are important in determining the suitability of a child for psychoanalysis: symptom picture, personal and family history, developmental level, relative ego strength, transference potential, test findings, transference potential of parents, attitudes of the analyst, his countertransference control, and a trial analysis.—*E. W. Eng.*

5140. Brown, Charles T. (Western Michigan U.) Introductory study of breathing as index of listening. *Speech Monogr.*, 1962, 29(2), 79-83.—A psychotherapist's respiration responds to respiration changes of his patient. Other studies indicate relations between listening and breathing. The tested hypotheses were (a) a good listener would tend to imitate a speaker's breathing characteristics more than a poor listener and (b) listening breathing would differ in rate, depth, variability, and form from vegetative and speaking breathing. 6 good listeners and 8 poor listeners were selected on the basis of the Educational Testing Service Test of Listening and 2 other tasks. Each of the Ss listened to a speech independently; and pneumographs gave polygraphic recordings of abdominal breathing while listening and, on some Ss, while taking a test. The 1st hypothesis was not supported; the 2nd was.—*D. Lebo.*

5141. Chen, Chu-Chang. (National Taiwan U. Hosp., Taipei, Taiwan) Therapeutic effects of spontaneous patient subgroups formed on a state hospital ward. *Int. J. group Psychother.*, 1962, 12(3), 301-311.—"An investigation of the composition of subgroups and of inter-subgroup relationships was carried out for a period of twenty months on a male closed ward in a state hospital. The geographical locations chosen by the subgroups mirrored, to a large extent, the clinical pictures of their members. The shifting of a patient's location from one area to another could be an important indicator of change in his psychological state, and in most cases reflected 'upward mobility,' i.e., toward subgroups of patients presenting the better clinical picture."—*L. N. Solomon.*

5142. Cohen, Robert A., & Cohen, Mabel Blake. Research in psychotherapy: A preliminary report. *Psychiatry*, 1961, 24(2, Suppl.), 46-61.—"We scrutinized the first ten hours of treatment by breaking the material down into interchanges, and studied them from a number of points of view, including the actual historical material brought forth, the development of the relationship between patient and therapist, the effect of various types of behavior of each upon the other, and the effects of the psychoanalytic approach on the structure and meaning of the therapeutic relationship. . . . [The] level of anxiety in the patient was paralleled by the degree of responsiveness in the therapist. . . . [The] patient's responses to the therapist were meaningfully related to the kind of communication he made, in terms of the degree to which they accepted or attacked his defenses. . . . We were impressed by the great amount of information given by the patient during the early hours, and the striking contrast between this and the amount of

use which could be made of it therapeutically."—C. T. Morgan.

5143. Daniels, Robert S., & Prosen, Harry. (U. Chicago) The contribution of visual observation to the understanding of an interview. *Int. J. group Psychother.*, 1962, 12(2), 230-239.—"Interviews were observed by a small group through a one-way viewing screen without sound. . . . Statements by the observers could be organized in three categories: (a) the use of the physical setting by patients and therapists, (b) the characteristic physical appearance and the behavioral traits of the patients and therapists, and (c) the interpersonal relationship between patients and therapists. . . . This technique is a valuable training and research tool."—L. N. Solomon.

5144. Dibner, Andrew S., Palmer, Robert D., & Cohen, Benjamin. (VA Mental Hygiene Service, Boston, Mass.) Screening for psychotherapy by an open-ended group. *Int. J. group Psychother.*, 1962, 12(3), 373-374.—Patients enter an open-ended group on a trial basis before deciding upon further individual or group therapy. It was found that those who had this initial experience stayed in treatment 50% longer than did control patients.—L. N. Solomon.

5145. Frey, Louise A. Support and the group: Generic treatment form. *Soc. Wk.*, 1962, 7(4), 35-42.—A description of various ways in which patients in group therapy can profitably receive support from the therapist and from the group.—G. Elias.

5146. Garfield, S. L., & Affleck, D. C. (U. Nebraska Coll. Medicine) Therapists' judgments concerning patients considered for psychotherapy. *J. consult. Psychol.*, 1961, 25(6), 505-509.—Therapists agree highly on judgment of prognosis, personal feelings towards patients, and interest for taking patients on for psychotherapy. In listing assets of patients only 5 assets predominate. Patients remaining in therapy were rated as having a better prognosis. Ratings of preference and personal feelings are not related to actual duration of stay.—E. R. Oetting.

5147. Getter, H., & Sundland, D. M. (Columbus Psychiatric Clinic, O.) The Barron Ego Strength scale and psychotherapeutic outcome. *J. consult. Psychol.*, 1962, 26(2), 195.—Es correlates with age and sex but not with improvement, hours in therapy, or acceptance of treatment, for an outpatient psychiatric group. Findings contradict Barron (see 28: 6072).—E. R. Oetting.

5148. Gottesman, L. E. (U. Chicago) The relationship of cognitive variables to therapeutic ability and training of client centered therapists. *J. consult. Psychol.*, 1962, 26(2), 119-125.—2 groups of clinical psychologists (one in therapy training, another training in projective test analysis) categorize client statements on a modification of the Role Construct Repertory Test. Permeability (applying of constructs) and complexity (number of constructs) relate to judgments of therapeutic ability. The use of common constructs was greater in the therapy group, increased with training, and is negatively related to complexity. Agreement on concepts decreased with training.—E. R. Oetting.

5149. Howe, E. S. (U. Maryland School Medicine) Anxiety-arousal and specificity: Rated correlates of the depth of interpretive statements.

J. consult. Psychol., 1962, 26(2), 178-184.—48 psychiatrists rate 62 interpretive responses on 1 of 5 scales: Depth of Interpretation, Specificity, Anxiety-Arousal, and Implausibility are positively interrelated and reliable. Therapeutic Skillfulness is unrelated and not reliable.—E. R. Oetting.

5150. Kahn, Eugene. (Baylor U.) The past is not past. Springfield, Ill.: Charles C Thomas, 1962. 66 p. \$3.75.—20 essays concerning an individual's, particularly a patient's, experiencing of the past. The present and future stand upon an individual's past, and each individual is retrospectively changing some aspects and experiences of his past.—C. T. Morgan.

5151. Konstorum, S. I. Opyt prakticheskoi psikhoterapii. [An account of practical psychotherapy.] Moscow, USSR: State Institute of Psychiatry, 1962. 224 p.—This posthumous edition is devoted to a consideration of general psychotherapy and special topics therein. In the former, therapies discussed are restricted to the suggestive, hypnotic, and rational. The latter includes discussions of psychotherapy in schizophrenia, psychasthenic and hysterical reactions, occupational neuroses, sexual disorders, and alcoholism.—I. D. London.

5152. Kors, Pieter C. The existential moment in psychotherapy. *Psychiatry*, 1961, 24(2), 153-162.—A discussion of some of the differences between Freudian and existential psychiatry.—C. T. Morgan.

5153. Kubie, Lawrence S. Is preventive psychiatry possible? *Daedalus*, 1959, 88(4), 646-668.—The author concludes in the affirmative, but the tasks involved in making preventive psychiatry an actuality are considerable and are not open to any easy solutions. Primary among the difficulties to be encountered are (a) socially entrenched prejudices which feed on the neurotic process and which lead to some aspects of society being highly prized even though they support the neurotic process, (b) the limited availability of sensitive diagnostic and therapeutic techniques which can be applied early and of practitioners to apply them, and (c) the limited knowledge concerning means of reorganizing family structures and educational systems so that they do not reinforce the neurotic process.—K. E. Davis.

5154. LeShan, Lawrence, & LeShan, Eda. Psychotherapy and the patient with a limited life span. *Psychiatry*, 1961, 24(4), 318-323.—Therapy with patients dying with cancer, and the reluctance of therapists to treat such patients, is discussed.—C. T. Morgan.

5155. Lüders, W. Grundaspekte der psychologischen Behandlung. [Basic aspects of psychological treatment.] *Psychol. Rdsch.*, 1962, 13(3), 180-191.—The essential difficulty of psychological treatment lies in the fact that only the client knows the pathogenesis of his behavior. However, learning to understand the client's behavior through his own set of values is still not sufficient in helping him. This can only be achieved if the therapist is also capable of guiding the patient efficiently toward the therapeutic goal. The criterion for psychotherapeutic achievement is the competence of interaction in the social field.—W. J. Koppitz.

5156. Masserman, J. H. (Ed.) Current psychiatric therapies. Volume 2. New York: Grune &

Stratton, 1962, xi, 289 p. \$8.75.—A review of diagnoses, advances, and new schools of psychotherapy is followed by articles on child psychotherapy, brain-damaged children, and the George Junior Republic. Under techniques of psychotherapy are articles on the anaclitic factor, activity in psychotherapy, hypnosis, Adlerian techniques, countertransference, negative therapeutic reaction, the blind, and the management and treatment of the dying patient. The remaining sections are on the treatment of psychoses, legal psychiatry, part-time psychiatric services, full-time hospital therapy, and finally on psychiatry and the world order.—D. Prager.

5157. Nand, D. Satya. The methods of total psychoanalysis. *Pratibha*, 1959, 2(1), 1-4.—Total psychoanalysis uses all the psychological, psychiatric, and psychoanalytic methods of investigation and therapy. It requires the S to carry 3 cards in his pocket—biographical card, experience card, and research card. Total psychoanalysis emphasizes the dysnoia state of anguish. "Total psychoanalysis has the basic radical depth and total psychoanalytic processes of the phylogenetic dimension as well as the entomorphic, ectomorphic and totimorphic psychophysical parallel field states of the ontogenetic dimension. Soul-analysis has also to be studied. It studies all these field states and their content on the basic assumption of religion or religiosity."—U. Pareek.

5158. Opitz, E. Psychotherapie im höheren Lebensalter. [Psychotherapy at advanced age.] *Psychol. Rdsch.*, 1962, 13(4), 241-255.—Specific techniques of treating neurotic difficulties usually centered around apprehension of death are discussed. Death anxiety is seen as masked greed for life; a firm guidance of the therapist is advocated to direct the patient in a critical analysis of his thinking and behavior patterns in order to resolve this anxiety.—W. J. Koppitz.

5159. Rosenbaum, Max, & Hartley, Eugene. (Ass. Group Psychoanalysis) A summary review of current practices of ninety-two group psychotherapists. *Int. group Psychother.*, 1962, 12(2), 194-198.—The results of a questionnaire administered at the 16th Annual Conference of the American Group Psychotherapy Association are presented.—L. N. Solomon.

5160. Sargent, Helen D. Intrapsychic change: Methodological problems in psychotherapy research. *Psychiatry*, 1961, 24(2), 93-108.—The paper discusses problems of: process and outcome, reality, epistemology, calibration of the judge, and reliability and validity. "The research problem lies in developing more psychologically sophisticated concepts of objectivity and of the levels at which controls should be applied in relation to different problems. . . . In psychotherapy research, judgments may be discovered to have increased predictive utility when released from structures imposed by arbitrary unitization, the quest for unidimensionality, and control at the level of observation."—C. T. Morgan.

5161. Tomlinson, T. M., & Hart, J. T., Jr. (U. Wisconsin) A validation study of the Process Scale. *J. consult. Psychol.*, 1962, 26(1), 74-78.—Rating of taped interviews with the Process Scale shows higher scores for successful cases at the beginning and end of therapy. For successful cases the

2nd ½ of the interview tends to rate higher than the 1st ½.—E. R. Oetting.

5162. Waskow, I. E. (U. Maryland School Medicine) Reinforcement in a therapy-like situation through selective responding to feelings or content. *J. consult. Psychol.*, 1962, 26(1), 11-19.—In 3 groups of Ss the therapist selectively reinforced content, feeling, and feeling-content responses with psychology students as Ss. The content group shows major change with the 1st ½ of the 1st interview; others show no clear effects.—E. R. Oetting.

5163. Winder, C. L., Ahmad, F. Z., Bandura, A., & Rau, L. C. (Stanford U.) Dependency of patients, psychotherapists' responses, and aspects of psychotherapy. *J. consult. Psychol.*, 1962, 26(2), 129-134.—Therapists' behavior is evaluated with parents of emotional or adjustment problem children. Where expressions of dependency are approached, patient remains in treatment and frequency of dependency expression is sustained or increases. If avoided, frequency decreases and the patient terminates. The form of expression by terminators and remainers may differ. Expressions of hostility also vary with therapist approach or avoidance.—E. R. Oetting.

Therapeutic Processes

5164. Cain, Albert C., & Maupin, Barbara M. (U. Michigan Medical Cent.) Interpretation within the metaphor. *Bull. Menninger Clin.*, 1961, 25(6), 307-311.—Some limits, complications, and countertransference potentials of the therapeutic technique of making conscious metaphoric use of the psychotic child's regressed language are indicated.—W. A. Varvel.

5165. Carson, R. C., & Heine, R. W., (Duke U.) Similarity and success in therapeutic dyads. *J. consult. Psychol.*, 1962, 26(1), 38-43.—Extreme similarity or dissimilarity on patient-therapist MMPI profile shape impedes therapy. A theoretical discussion is given.—E. R. Oetting.

5166. Deane, William N., & Ansbacher, Heinz L. Attendant-patient commonality as a psychotherapeutic factor. *J. indiv. Psychol.*, 1962, 18(2), 157-167.—The commonality of background and language and his close associations with patients contribute materially to the therapeutic value of the attendant. Suggestions for implementing the latter's role are offered.—A. R. Howard.

5167. Frank, G. H., & Sweetland, A. (U. Miami) A study of the process of psychotherapy: The verbal interaction. *J. consult. Psychol.*, 1962, 26(2), 135-138.—Clarification of feeling responses forcing insight responses by the therapist led to marked increase in understanding responses and insight responses. Interpretation increased understanding and insight and decreased statements about problems; the reverse was true of direct questions. ". . . there is a consistent relationship in the sequence of client-therapist statements."—E. R. Oetting.

5168. Howe, E. S., & Pope, B. (U. Maryland School Medicine) An empirical scale of therapist verbal activity level in the initial interview. *J. consult. Psychol.*, 1961, 25(6), 510-520.—2 parallel scales for assessing the activity level of discrete therapist verbal responses are developed and evaluated with a number of different types of raters and of

materials. Theoretical implications of the differences found are discussed. The median of 112 reliability coefficients is .50.—E. R. Oetting.

5169. Howe, E. S., & Pope, B. (U. Maryland School Medicine) **Therapist verbal activity level and diagnostic utility of patient verbal responses.** *J. consult. Psychol.*, 1962, 26(2), 149-155.—Ratings are made of the diagnostic utility of statements of patients in therapy with 4 different therapists. The rating is significantly related to the number of clauses in the response. Activity level of the therapist may be related to number of clauses. The Rogerian interview was rated less reliably than the non-Rogerian interview.—E. R. Oetting.

5170. Link, S. Gordden. (Washington, D. C.) **Influence of cultural factors on process and product of therapy.** *J. Amer. Soc. Psychosom. Dent. Med.*, 1962, 9(4), 92-106.—A brief analysis of the literature, of a questionnaire response, and of actual clinical experience shows the greatest number of successful results to occur in cases where there were similarities between patient and therapist in social and cultural factors.—J. H. Manhold, Jr.

5171. Sechrest, Lee. (Northwestern U.) **Stimulus equivalents of the psychotherapist.** *J. indiv. Psychol.*, 1962, 18(2), 172-176.—Role Construct Test data from 35 psychotherapy patients do not support the Freudian view of transference. It is more probable that the therapist will be likened to the family physician and minister than to some family member.—A. R. Howard.

5172. Shatan, Chaim F., Brody, Benjamin, & Ghent, Emanuel R. (Coll. City New York) **Countertransference: Its reflection in the process of peer-group supervision.** *Int. J. group Psychother.*, 1962, 12(3), 335-346.—It is hypothesized that, unconsciously, the therapist maneuvers his patients into roles which best fit his own needs and that he integrates his defenses against anxiety with complementary or corresponding defenses in his patients. It is suggested that peer-group supervision may make an important contribution to the student's awareness in this domain.—L. N. Solomon.

5173. Strupp, H. H. (U. North Carolina) **Some recent research on the psychotherapist's contribution to the therapeutic process.** In G. Nielson (Ed.), *Proceedings of the XIV International Congress of Applied Psychology. Vol. 4. Clinical Psychology* (see 37: 4119). Pp. 89-98.—The article presents some examples of research and illustrates influence through communication.—B. T. Jensen.

5174. Weigert, Edith. **Die Rolle der Sympathie in der Psychotherapie.** [The role of sympathy in psychotherapy.] *Psyche, Stuttgart*, 1962, 16(3), 209-220.—The creative understanding of the patient develops from the therapist's sympathy, a more developed form of empathy. In sympathy there is a concern for the other as an individual that extends beyond the emotional contagiousness of primitive empathy. Genuine sympathy enables dissolution of the patient's masks as the therapist accompanies the patient in his struggle to accept his life as it must be for him.—E. W. Eng.

Group Therapy

5175. Anker, J. M., & Walsh, R. P. (VA Hosp., Perry Point) **Group psychotherapy, a special ac-**

tivity program, and group structure in the treatment of chronic schizophrenics. *J. consult. Psychol.*, 1961, 25(6), 476-481.—A special activity group involving the production of plays led to significant changes on the MACC Behavioural Adjustment Scale. Group psychotherapy showed minor positive results and group structure was not related. Measures of group cohesion and social choice show no change.—E. R. Oetting.

5176. Bassin, Alexander, & Smith, Alexander B. (Yeshiva U.) **Verbal participation and improvement in group therapy.** *Int. J. group Psychother.*, 1962, 12(3), 369-373.—No significant relationship was found between amount of talking in group therapy sessions and extent of change (or "improvement") on 2 evaluation instruments.—L. N. Solomon.

5177. Berger, Milton M. (American Group Psychotherapy Ass.) **An overview of group psychotherapy: Its past, present and future development.** *Int. J. group Psychother.*, 1962, 12(3), 287-294.—A brief review of the past and present concerns of group psychotherapists and some suggestions for future activities of the members of the American Group Psychotherapy Association.—L. N. Solomon.

5178. Berzon, Betty. (Western Behavioral Sciences Inst., La Jolla, Calif.) **Residual parental threat and selective interaction in group psychotherapy.** *Int. J. group Psychother.*, 1962, 12(3), 347-354.—The prediction that individuals would initiate interaction in group therapy with other group members on the basis of perceived similarity to their more threatening parent is not supported by the data of this study.—L. N. Solomon.

5179. Bloch, C. (72 Ave. Louis Lepoutre, Brussels, Belgium) **Psychothérapie par groupes de discussion chez des malades mentaux hospitalisés.** [Psychotherapy through group discussion with hospitalized mental patients.] *Acta neurol. psychiat. Belg.*, 1962, 62, 264-278.—This paper discusses the relevance, problems, and efficacy of group psychotherapy.—V. Sanua.

5180. Block, S. L. **Multi-leadership as a teaching and therapeutic tool in group psychotherapy.** *Comprehen. Psychiat.*, 1961, 2(4), 211-218.—The chief disadvantage arises from the competitiveness of the 2 leaders. The advantages are a decrease in anxiety of trainee therapists, enhancement of perception of group events, closer approximation of the 2-parent family model, demonstrates to patients constructive resolution of differences between leaders, and aids the trainee in resolving his countertransference problems.—D. Prager.

5181. Boas, Conrad van Emde. (Marriage Guidance Clinic, Amsterdam, Holland) **Intensive group psychotherapy with married couples.** *Int. J. group Psychother.*, 1962, 12(2), 142-153.—This report of intensive, analytically oriented group psychotherapy with 7 couples over more than 2 years, without impossibly complicated transference reactions occurring, demonstrates that the contraindications to simultaneous treatment of husband and wife, although fully justified in individual psychoanalysis, cannot be applied to analytic group psychotherapy.—L. N. Solomon.

5182. Bock, J. Carson. (Workmens Compensation Board Hosp., Downsview, Canada) **Self-orient-**

tation to others during non-directive group psychotherapy. *Med. Serv. J.*, 1961, 17(2), 111-117.—This study attempts to measure both the direction and the quality of verbal interaction among psychoneurotics undergoing group therapy in an attempt to discover whether differences and changes in either are related to an index of improvement. 2 experiments were carried out. The findings suggest support for the ideas: (a) that neuroticism reflects a deficiency in warm human relationships and (b) that improvement in mental health goes hand in hand with increased interest in others.—*Author abstract.*

5183. Bugental, J. F. T. (Psychological Service Ass., Los Angeles, Calif.) **Five paradigms for group psychotherapy.** *Psychol. Rep.*, 1962, 10, 607-610.—In an attempt to clarify terminology, 5 types of group psychotherapy are described: process-centered, activity-projects, interpersonal discussion, expressive-projective, and analytic. Typical activities, therapist functions, patient's role, and values of each are discussed.—*B. J. House.*

5184. Flint, Arden A., Jr., & MacLennan, Beryce W. (National Inst. Mental Health) **Some dynamic factors in marital group psychotherapy.** *Int. J. group Psychother.*, 1962, 12(3), 355-361.—An analysis of 6 groups composed of married couples reveals that the presence of the marital partner significantly alters the group dynamics, focus of therapy, transferences, resistance, and outcome. Types of patients who have responded well to marital group therapy are listed and a particular types of marriage found not to be amenable to this type of therapy is described.—*L. N. Solomon.*

5185. Handlon, Joseph H., & Parloff, Morris B. (National Inst. Ment. Health) **The treatment of patient and family as a group: Is it group psychotherapy?** *Int. J. group Psychother.*, 1962, 12(2), 132-141.—The family therapy group does not meet some of the conditions of conventional group therapy which are presumed to be important contributors to the latter's therapeutic efficacy. Whether the failure to meet all the conditions of the conventional therapy group limits the therapeutic usefulness of the family group is left as an open question.—*L. N. Solomon.*

5186. Hulse, Wilfred C. (Mt. Sinai Hospital, N. Y.) **Communalization as an active psychotherapeutic group process.** *Int. J. group Psychother.*, 1962, 12(2), 225-229.—An example of the process of "communalization" is presented in which the therapist allows a conflict to be worked through in the group which has important therapeutic meaning for a majority of the group members.—*L. N. Solomon.*

5187. Jackson, James. (Ass. Medical Group Psychoanalysts) **A family group therapy technique for a stalemate in individual treatment.** *Int. J. group Psychother.*, 1962, 12(2), 164-170.—"A frequent reason for a therapeutic impasse can be found in the anchorage of an individual's neurosis in a complementary or marriage neurosis. A case is reported in which the primary patient's marriage partner was introduced into the individual psychotherapy session" with seemingly beneficial results.—*L. N. Solomon.*

5188. Leichter, Elsa. (Jewish Family Service, NYC) **Group psychotherapy of married couples' groups: Some characteristic treatment dynamics.** *Int. J. group Psychother.*, 1962, 12(2), 154-163.—The dynamic value of various reactions of the spouse to

the mate's treatment experience in a married couples group is discussed. Topics center on the partner as alter or auxiliary ego, reactions to change in mate, and the diminishing of symbiotic marital ties.—*L. N. Solomon.*

5189. Lindt, Hendrik, & Pennal, Hugh A. (U. Texas, Galveston) **On the defensive quality of groups: A commentary on the use of the group as a tool of control reality.** *Int. J. group Psychother.*, 1962, 12(2), 171-179.—Belonging to a group tends to reinforce the individual's mechanism of defense against anxiety, which, in turn, facilitates psychiatric rehabilitation. 3 life situations in which one needs a group in order to function and grow are: (a) in relation to separation anxiety, (b) when there is a quest for identity, and (c) after an impasse has been reached by the individual.—*L. N. Solomon.*

5190. McFarland, Robert L., Nelson, Charles L., & Rossi, Ascanio M. (VA Research Hosp., Chicago) **Prediction of participation in group psychotherapy from measures of intelligence and verbal behavior.** *Psychol. Rep.*, 1962, 11(1), 291-298.—The development of "a practical short screening battery for selection of patients suitable for group psychotherapy" is described. Intercorrelations were obtained among intelligence scores, verbal fluency, a new projective test, 3 tests involving other language functions, and scores on B. C. Finney's Interaction Scale. "Intelligence scores per se were the best predictors of participation in therapy as measured by the Finney scores. . . . Combining such scores on a multiple-correlation regression line with S's score on a new brief analogy test increased the general efficacy of our predictors."—*B. J. House.*

5191. Murthy, H. N. **Group therapy with schizophrenics.** *Pratibha*, 1959, 2(1), 14-19.—An experiment with group therapy shows the usefulness of sociometric measures, observational studies, and content analysis. Cultural background of individuals and its understanding is very important.—*U. Pareek.*

5192. Rome, Howard P. (Mayo Clinic, Rochester, Minn.) **Group psychotherapy: A twenty-year retrospect.** *Int. J. group Psychother.*, 1962, 12(3), 295-300.—A review of the development of group psychotherapy over the past 20 years, with attention to the independent course of several parallel streams of thought.—*L. N. Solomon.*

5193. Rosenthal, Leslie, & Schamess, Gerald. (Jewish Board Guardians) **The group psychotherapy literature: 1961.** *Int. J. group Psychother.*, 1962, 12(2), 240-259.—A summarized review of the literature. (155-item bibliogr.)—*L. N. Solomon.*

5194. Stock, Dorothy, & Lieberman, Morton A. (U. Chicago) **Methodological issues in the assessment of total-group phenomena in group therapy.** *Int. J. group Psychother.*, 1962, 12(3), 312-325.—The existence of shared preconscious fantasies, which are the property of the total group, is hypothesized and these are conceptualized in "focal conflict" terms. The "group focal conflict" is a construct used to conceptualize the events of a particular therapy session in terms of a preconscious conflict between 2 opposing motives, together with various attempts to find a solution to the conflict. Methodological problems concerning procedures, agreement among independent analyzers, and the validity of formulations are discussed.—*L. N. Solomon.*

5195. **Strean, Herbert S.** (State U. New York) **On introducing the new member.** *Int. J. group Psychother.*, 1962, 12(3), 362-368.—Through the use of clinical illustrations, a review is made of the multiple transference phenomena that were stimulated by the introduction of a new member into a group at different stages in the group's existence and development. Focus is on an examination of the various stratagems utilized in introducing the new member and an evaluation of their relative merits.—*L. N. Solomon.*

5196. **Winic, Charles, & Holt, Herbert.** **Seating position as nonverbal communication in group analysis.** *Psychiatry*, 1961, 24(2), 171-182.—"Seating arrangements, as one dimension of group activity, can be productively observed and utilized, both as a means of therapy and as a subject for research."—*C. T. Morgan.*

5197. **Wolf, Alexander, & Schwartz, Emmanuel K.** (NYC) **Psychoanalysis in groups.** New York: Grune & Stratton, 1962. ix, 326 p. \$8.00.—"The authors attempt to make explicit the concepts and procedures of psychoanalysis developed in the course of working with hundreds of patients of all types covering most of the syndromes, including neurosis, psychosis, and character disorders, in private practice and institutions." The utilization of free association, dreams, and transference are prescribed as the primary therapeutic instruments. Of the great interest is the authors' treatment of the highly controversial subjects of the "alternate group," "permissive groups," and "leaderless groups." The chapters read as follows: "Basic Design," "Structure," "Size," "Other Variables," "The Alternate Session," "Acting Out," "Dreams," "Working Through," "Routine Individual Sessions," "Misuse of the Group," "Values," "An Application," "Synthesis," and "The Future." (149 ref.)—*N. De Palma.*

Special Therapies

5198. **Anzieu, Didier.** **Quelques problèmes posés par la formation dite en profondeur.** [Some problems laid by depth analysis training.] *Psychol. Franc.*, 1962, 7(2), 85-93.—A discussion is given of problems encountered in the application of various methods of group diagnostic work and psychodrama leading to sociopersonal improvement. The "Bethel-methods" developed by the National Training Laboratory are contrasted with those of traditional psychoanalysis.—*C. J. Adkins.*

5199. **Babcock, Patricia; Gross, Dellvina, & Gohl, Azela.** (Anoka State Hosp., Minn.) **Occupational therapy for disturbed adolescents.** *Amer. J. occup. Ther.*, 1962, 16(4), 176-181.—Occupational therapy offers a great deal in the way of psychological support for the disturbed adolescent. It provides a safe and accepting environment in which the occupational therapist can supply understanding, the opportunity for creative effort in which the child may become self-confident, and a sense self-worth and accomplishment. In addition occupational therapy provides vocational and avocational exploratory experiences and an excellent situation for the observation of the patient's behavior in an effectively controlled environment.—*M. A. Seidenfeld.*

5200. **Barrett, Beatrice H.** (Harvard Medical School, Cambridge, Mass.) **Reduction in rate of**

multiple tics by free operant conditioning methods. *J. nerv. ment. Dis.*, 1962, 135(3), 187-195.—A 38-year-old veteran patient with extensive multiple tics of 14 years duration was placed in an operant conditioning situation using a tape loop of white noise as a tic-produced aversive stimulus. Tic-free periods of at least 1.5 seconds duration interrupted the noise which did not recur until the next tic. As a control, periods of continuous music and continuous noise were used. Results showed that this patient's tics "could be reduced in rate by self control, by tic-produced white noise, and by continuous music."—*N. H. Pronko.*

5201. **Conte, William R., & Shimota, Helen E.** (Dept. Institutions, Olympia, Wash.) **The relationship between psychiatry and occupational therapy.** *Amer. J. occup. Ther.*, 1962, 16(3), 119-123.—The outcome of a nationwide opinion survey relative to the degree of effectiveness of occupational therapy as a treatment procedure. The article indicates that considerable importance is attached to this field of professional service, but that psychiatrists and psychiatric hospital administrators tend to value it less than do the professionals who are more intimately involved with occupational therapy and its modalities. It appears to be generally conceded that occupational therapy contributes to improved relationships between therapist and the patient and to the development of group activities leading to socialization. Dissatisfaction is expressed with respect to the relationship between occupational therapists and psychiatric consultants and the lack of on-the-job learning opportunities. Poor communication in inter-professional relationships is considered a significant factor in the current situation.—*M. A. Seidenfeld.*

5202. **Gilliland, Esther G.** **Progress in music therapy.** *Rehabilit. Lit.*, 1962, 23(10), 298-306, 316.—A concise, documented history of the development of music therapy as a profession is given, followed by a brief discussion of the educational and musical prerequisites for a music therapist. Literature relating to the following areas is reviewed: (a) effective use of music in rehabilitation programs, (b) the physiological, psychological, and philosophical effects of music on the whole organism, (c) coordination of music therapy with other types of treatment, (d) uses of music in various types of therapy, and (e) uses of music with various types of patients. (45 ref.)—*W. D. Kerr.*

5203. **Hendrickson, Donna.** (Illinois State Psychiatric Inst., Chicago) **Personality variables: Significant departures of occupational therapists from popular norms.** *Amer. J. occup. Ther.*, 1962, 16(3), 127-130.—Cattell's 16 Personality Factor Test was administered to a small sample of occupational therapists residing in the Chicago area. When compared with the norms for the college population it was found that on 9 of the 16 factors the occupational therapists differed significantly from the norms. The findings indicated that as a group, occupational therapists specializing in psychiatry were warm, friendly, intelligent, aggressive, practical, tough, unpretentious, highly flexible, and broad-minded.—*M. A. Seidenfeld.*

5204. **Luthe, W.** (Medical Centre, 5300 Cote Des Neiges, Montreal, Canada) **Method, research and application of autogenic training.** *Amer. J. clin. Hypn.*, 1962, 5(1), 17-23.—The effects of autogenic

training are diametrically opposed to the effects evoked by stress. The psychophysiologic antagonism between autogenic training and stress indicates the therapeutic range of the method which originated from the work of Oskar Vogt.—*M. V. Kline.*

5205. Merian, Doris. *Phantasiegeschichten in der Kindertherapie.* [Phantasy stories in child therapy.] *Psyche, Stuttgart*, 1962, 16(2), 111-126.—Phantasy helps the child realize his feelings, free himself from feelings of inadequacy, and master anxiety. Usually the child is able to talk about a problem only after he has already mastered it in himself. The phantasy story, initiated and/or encouraged by the therapist, enables him to do this. "Interpretation," in the strict sense of the word, is inappropriate in work with children's narrative phantasies.—*E. W. Eng.*

5206. Perlowitz, H. Some aspects of the psychodynamics of social dancing in relationship to sublimation and regressive behavior. *Psychiat. Quart. Suppl.*, 1961, 35(1), 100-113.—Dancing represents a method of nonverbal abreaction in which each partner acts as a nonverbal analyst substituting moral and amoral needs and at times engaging amoral needs for moral resolution. As the rapport of the dance partners increases a vacillation of transference and countertransference occurs which establishes in each partner a gradual diminution of anxiety against sexual thoughts, impulses, and feelings. Dancing then becomes a sublimating concept, abreacting repressed fears and guilt and resolving the striving toward amoral behavior. Social dancing is a means of adaptational integration, particularly effective for withdrawn Ss. Dancing is thus invaluable in the treatment of the neurotic and psychotic.—*D. Prager.*

5207. Reza, Telma. *Behandlung eines sechs jährigen Kindes mit schizophrener Psychose.* [Treatment of a six year old child with schizophrenia.] *Psyche, Stuttgart*, 1962, 16(3), 197-208.—Description of the psychoanalytic play therapy of a 6-year-old boy diagnosed as schizophrenic. The treatment lasted 13 months with 90 sessions. At termination "the reactions of the patient in everyday life" were "normal and have continued to be so." During therapeutic play Sechehaye's principles of symbolic wish fulfillment were followed.—*E. W. Eng.*

5208. Wadsworth, W. V., Wells, B. W. P., & Scott, R. F. (Cheadle Royal Hosp., Cheshire, England) *The organization of a sheltered workshop.* *J. ment. Sci.*, 1962, 108(Whole No. 457), 780-785.—In planning an industrial therapy unit as adjunctive to the psychotherapeutic program of a hospital, attention must be paid not only to the therapeutic needs of the patients as schizophrenic or other, but also to the physical and other demands of various jobs to be attempted. Mental state and environmental demand must be balanced.—*W. L. Wilkins.*

HYPNOSIS

5209. Ås, Arvid. (U. Oslo, Norway) *A note on distractibility and hypnosis.* *Amer. J. clin. Hypn.*, 1962, 5(2), 135-137.—A note on the mechanism of attention focus and its relationship to hypnosis.—*M. V. Kline.*

5210. Ås, Arvid. *The recovery of forgotten language knowledge through hypnotic age regres-*

sion: A case report. *Amer. J. clin. Hypn.*, 1962, 5(1), 24-29.—Hypnotic recovery of a forgotten language through the use of age regression is discussed in 1 case. Experimental analysis revealed sufficient positive evidence to warrant further studies.—*M. V. Kline.*

5211. Ås, Arvid, & Lauer, Lillian W. (Stanford U.) *A factor-analytic study of hypnotizability and related personal experiences.* *Int. J. clin. exp. Hypn.*, 1962, 10(3), 169-181.—To throw further light on the exclusivity of "primary suggestibility" as reported by other investigators, a factor analysis was performed in a sample of 102 female college students on the basis of the intercorrelations of 23 items of personal experiences earlier shown to be related to hypnotizability, and 19 items from 2 hypnosis scales. No simple factor structure emerged. 2 factors were interpreted: the 1st as a hypnotic factor with special emphasis on the capability to sustain the effect of suggestion over time, and the 2nd as a combination of psychological changeableness and social influenceability. A brief discussion was given of the composite picture of hypnotic susceptibility emerging from the fact that many hypnotic items loaded on both factors.—*C. S. Moss.*

5212. Barber, T. X. (Medfield State Hosp., Mass.) *Hypnotic age regression: A critical review.* *Psychosom. Med.*, 1962, 24(3), 286-299.—A review of the relevant clinical and experimental studies regarding the reports that during hypnotic age regression, Ss manifest some infantile reflex responses and some overt behavioral responses that are not within the range of knowledge of infant or child behavior available, under normal conditions, to the adult. It is concluded that further experiments are needed because control Ss have not been selected on the same basis as have the hypnotized Ss. (69 ref.)—*W. G. Shipman.*

5213. Barber, Theodore X. (Medfield State Hosp., Mass.) *Toward a theory of "hypnotic" behavior: The "hypnotically induced dream."* *J. nerv. ment. Dis.*, 1962, 135(3), 206-221.—An experiment with 8 hypnotized Ss on the nature of dreams under hypnosis suggests that (a) hypnosis does not enhance the ability to interpret dreams, (2) the hypnotic dream is not a duplicate of the spontaneous night dream and (c) "it appears possible that 'dreams' induced by suggestions given to 'deeply hypnotized' Ss may be difficult if not impossible to differentiate from the imaginative productions of non-hypnotized controls who are instructed and appropriately motivated to imagine vividly selected scenes or situations or who are instructed to make up dream-like material."—*N. H. Pronko.*

5214. Boucher, R. G., & Hilgard, E. R. (Stanford U.) *Volunteer bias in hypnotic experimentation.* *Amer. J. clin. Hypn.*, 1962, 5(1), 49-51.—Ss, both male and female, who volunteered for experiments on hypnosis on the basis of a notice in the student newspaper scored significantly higher than Ss from an introductory psychology class who fulfilled part of the class requirement by participating. No sex differences were found. Because of the volunteer bias, as well as other factors in S selection, test norms should be constructed for difference S groups, such as patients coming for treatment.—*M. V. Kline.*

5215. Cheek, D. B. (2000 Van Ness, San Francisco, Calif.) Ideomotor questioning for investigation of subconscious "pain" and target organ vulnerability. *Amer. J. clin. Hypn.*, 1962, 5(1), 30-41.—Some techniques of ideomotor questioning and their values for communication with levels of awareness approximating those where perception and attitude govern physiologic adaptations are discussed.—*M. V. Kline.*
5216. Cheek, D. B. (Children's Hosp., San Francisco, Calif.) Importance of recognizing that surgical patients behave as though hypnotized. *Amer. J. clin. Hypn.*, 1962, 4(4), 227-235.—Until all physicians know the available ways of discovering and correcting the potentially detrimental and even lethal subconscious attitudes of surgical patients, it is possible to bypass some of them by learning some of the characteristics of subconscious thought, and respecting the capacity of the anesthetized patient to hear.—*M. V. Kline.*
5217. Cheek, David B. (2000 Van Ness Ave., San Francisco, Calif.) Some applications of hypnosis and ideomotor questioning methods for analysis and therapy in medicine. *Amer. J. clin. Hypn.*, 1962, 5(2), 92-104.—Utilizing ideomotor activity and hypnosis in combination, it becomes easier to scan accurately and safely, large areas of life experience within the brief periods of time available to the clinician.—*M. V. Kline.*
5218. Crasilneck, Harold B., & Hall, James A. (Dallas, Tex.) The use of hypnosis with unconscious patients. *Int. J. clin. exp. Hypn.*, 1962, 10(3), 141-144.—8 of 10 patients dying of cancer were found to continue a simple motor response to a hypnotic command, even though they revealed no other evidence of interaction with the environment and were considered unconscious by their physicians. Certain theoretical considerations are mentioned.—*C. S. Moss.*
5219. Das, J. P. (Utkal U., Cuttack, India) Learning under conditions of hypnotically induced anxiety and nonanxiety. *Int. J. clin. exp. Hypn.*, 1962, 10(3), 163-168.—The hypothesis that anxiety may serve as a drive in learning situations was tested. Easy and difficult lists of trisyllabic nonsense syllables were learned by 6 somnambulistic Ss under conditions of hypnotically induced high and low anxiety. Level of hypnotically induced anxiety was not found to affect either recall scores nor number of trials to criterion.—*C. S. Moss.*
5220. Dittborn, J. M., & Aristequieta, A. (U. Chile, Santiago) Expectation and spontaneous posthypnotic amnesia: An experimental note. *Amer. J. clin. Hypn.*, 1962, 4(4), 268-269.—The findings, for which time values and electroencephalographic recordings were fixed variables, suggest that only a literal expectation could abolish—and then only partially—a posthypnotic amnesia. Also, they indicate that posthypnotic amnesia as a spontaneous manifestation is a genuine phenomenon which warrants further investigation.—*M. V. Kline.*
5221. Edmonston, William E., Jr. (Washington U. School Medicine, St. Louis) Hypnotic age-regression: An evaluation of role-taking theory. *Amer. J. clin. Hypn.*, 1962, 5(1), 3-7.—Role-taking theory in relation to hypnotic behavior is critically reviewed and found to be an inadequate model for the nature of hypnosis and its effects.—*M. V. Kline.*
5222. Eisele, V. G., & Higgins, J. J. (East St. Louis, Mo.) Hypnosis in educational and moral problems. *Amer. J. clin. Hypn.*, 1962, 4(4), 259-263.—A student counselor, a minister, or a marriage counselor, if properly trained in hypnosis and clinical psychology and working in cooperation with and under the guidance of a physician, can benefit a wide variety of patients.—*M. V. Kline.*
5223. Erickson, Elizabeth M. (32 W. Cypress St., Phoenix 3, Ariz.) Observations concerning alterations in hypnosis of visual perceptions. *Amer. J. clin. Hypn.*, 1962, 5(2), 131-134.—A subjective account and critical comment on hypnosis and visual perception.—*M. V. Kline.*
5224. Giles, Eugene. (U. Idaho) A cross-validation study of the Pascal technique of hypnotic induction. *Int. J. clin. exp. Hypn.*, 1962, 10(2), 101-108.—A cross-validation of reported high successes of hypnotic induction and statements that success was independent of the operator when using Pascal's technique showed that: (a) an experienced-operator group clearly excelled a training group, and (b) the experienced group almost exactly replicated percentage-wise the successes claimed by Pascal and Salzberg.—*C. S. Moss.*
5225. Goldman, Bert A. (Mary Washington Coll.) Hypnosis: Its present legal status in the United States. *Amer. Psychologist*, 1962, 17(10), 715-717.—The "purpose of this paper is to provide a synopsis of the legal position of hypnosis as it stands today within each of the 50 United States and the District of Columbia." 44% of the states currently have at least one law specifically regulating some kind of involvement with hypnosis. A table is presented specifying 7 types of statutes pertaining to hypnosis and indicating which type has been passed by a particular state.—*S. J. Lachman.*
5226. Heron, W. T. (U. Minnesota) A confusion of verbs: To use and to need. *Amer. J. clin. Hypn.*, 1962, 4(4), 211-214.—What goes under the heading of psychodynamics has been greatly overplayed. This overemphasis has been the result of a slavish following of Freud—sometimes with a very poor understanding of what Freud said. Hypnosis may be very useful as an adjunct in changing behavior.—*M. V. Kline.*
5227. Hilgard, Josephine R., & Hilgard, Ernest R. (Stanford U.) Developmental-interactive aspects of hypnosis: Some illustrative cases. *Genet. Psychol. Monogr.*, 1962, 66(1), 143-178.—9 cases are presented, selected from a sample of 220 university students tested for hypnotic susceptibility and interviewed following the experience with attempted hypnotic induction. Emphasis was placed in the interviews upon childhood experiences as developmental antecedents of hypnotic susceptibility. The theory being explored is that these developmental factors lead to a readiness to experience hypnosis when the interaction with the hypnotist occurs. A representative cluster of highly hypnotizable and less hypnotizable Ss is illustrated by 4 cases, a high and a low female subject and a high and a low male S. 2 cases show selective responsiveness within hypnosis, one passing motor items but failing amnesia, the other being weak on motor items but passing amnesia. Childhood background appears to be related to this

selective responsiveness. The 3 final cases show that Ss with some pathological trends may also be highly susceptible. It is indicated that hypnosis is an unusually fertile area in which to test psychoanalytic propositions with a normal population, propositions such as those bearing on ego structure and function, on transference, and on regression.—*Author abstract.*

5228. Klemperer, Edith. (315 E. 77th St., New York) **Projective phenomena in hypnoanalysis.** *Int. J. clin. exp. Hypn.*, 1962, 10(3), 127-133.—During hypnoanalysis patients who have been age-regressed may perceive themselves as experiencing childhood experiences and also as simultaneously watching these experiences from a distance. This 2nd projected personality may be in the guise of an adult, adolescent, child, or even an incorporeal being. In some patients it may occur with regularity, in others not at all. Representative case histories and possible dynamic mechanisms are discussed.—C. S. Moss.

5229. Kuhner, Arthur. **Hypnosis without hypnosis.** *Int. J. clin. exp. Hypn.*, 1962, 10(2), 93-99.—The traditional concept of hypnosis that seeks a "sleep" state through employment of formal induction techniques seriously limits its general clinical applicability. It fails to fit the special needs of the patient. An approach designed to counteract this shortcoming manipulates the interpersonal relationship factor. Case illustrations from dental practice support the viewpoint that the proper relationship is akin to the hypnotic one and comparable results obtain without resort to ritualistic induction methods.—C. S. Moss.

5230. Le Baron, George I. (USAF Hosp., Seattle, Wash.) **Ideomotor signalling in brief psychotherapy.** *Amer. J. clin. Hypn.*, 1962, 5(2), 81-91.—This paper reports a hypnotic technique applicable within the framework of brief psychotherapy, based on psychodynamics and utilizing a limited dissociation to focus ego operations on unconscious processes.—M. V. Kline.

5231. Lerner, M. (Araoz 2689, Buenos Aires, Argentina) **Comparative aspects of human and animal hypnosis.** *Amer. J. clin. Hypn.*, 1962, 5(1), 57-60.—A descriptive analysis of the comparative aspects of human and "animal" hypnosis.—M. V. Kline.

5232. Levitsky, Abraham. (St. Louis State Hosp., Mo.) **Guilt, self-criticism and hypnotic induction.** *Amer. J. clin. Hypn.*, 1962, 5(2), 127-130.—The dynamics of guilt and self-criticism as ego mechanisms are related to hypnotic induction and behavior.—M. V. Kline.

5233. Levitt, Eugene E., Lubin, Bernard, & Brady, John Paul. (Indiana U. Medical Cent.) **On the use of TAT Card 12M as an indicator of attitude toward hypnosis.** *Int. J. clin. exp. Hypn.*, 1962, 10(3), 145-150.—This investigation indicates that responses to TAT Card 12M do not predict attitude toward hypnosis in female Ss, though such predictiveness has been reported for male respondents. The basis for this differential predictiveness may be that the latter give a significantly greater proportion of themes involving hypnosis. An explanatory hypothesis, based on perceptual theory and the stimulus properties of the card, is advanced.—C. S. Moss.

5234. Mellenbruch, P. L. (U. Kentucky) **The validity of a personality inventory tested by hypnosis.** *Amer. J. clin. Hypn.*, 1962, 5(2), 111-114.—Hypnosis can be used as a basis for evaluating the validity of a personality inventory and clarifying the dynamics of test responses.—M. V. Kline.

5235. Pattie, F. A., & Griffith, R. (U. Kentucky, Lexington) **The non-hypnotizability of Korsakoff patients.** *Amer. J. clin. Hypn.*, 1962, 5(1), 61-62.—The failure to induce hypnosis in 6 or in any number of Korsakoff patients does not prove that no Korsakoff patient can be hypnotized. But it is highly unlikely that patients with such a severe impairment of memory for current happenings will ever be able to enter the hypnotic trance.—M. V. Kline.

5236. Pattie, F. A., & Watkins, J. R. (U. Kentucky, Lexington) **Hypnosis and contact lenses: Fear alleviation and facilitation of initial fitting.** *Amer. J. clin. Hypn.*, 1962, 5(1), 52-56.—The use of hypnosis in the fitting of contact lenses is described for a number of patients with fears in this connection.—M. V. Kline.

5237. Pulver, S. E. (111 N. 49th St., Philadelphia, Pa.) **Uncovering the traumatic event as a hypnotherapeutic technique.** *Amer. J. clin. Hypn.*, 1962, 5(1), 42-46.—An evaluation of the dynamics of hypnotic abreaction of traumatic events and its relationship to hypnotherapy.—M. V. Kline.

5238. Rosenhan, David, & London, Perry. (Educational Testing Service) **Hypnosis: Expectation, susceptibility, and performance.** *J. abnorm. soc. Psychol.*, 1963, 66(1), 77-81.—78 male undergraduates performed on a hand dynamometer, a weight endurance task, and a tremor task, prior to knowing that the experiment dealt with hypnosis. They were subsequently asked to volunteer for a hypnosis experiment. Of the 68 volunteers 16 were classified as susceptible to hypnosis and 16 relatively unsusceptible on the basis of their performance on the Group Hypnotic Susceptibility Scale. During the next session, all were administered the physical performance tests in the un hypnotized and hypnotized states. The results for the dynamometer and endurance tasks suggested that, if anything, differences between susceptible Ss were more marked before they knew that the experiment dealt with hypnosis, becoming less evident during the postknowledge conditions. For the tremor test, only slight differences emerged between the susceptible and unsusceptible groups on the preknowledge condition, but these grew increasingly larger during the postknowledge conditions, favoring the susceptible group. Indeed, hypnosis seemed to markedly improve the performance of susceptible Ss, while having little effect on unsusceptible ones.—*Journal abstract.*

5239. Schneider, Norman. (Los Angeles, Calif.) **Hypnotism and you: An essay on the theory and practice of the hypnotic art.** New York: Exposition, 1962. 77 p. \$2.50.—A brief theoretical and speculative essay on the nature of hypnosis and its relationship to certain other subjective experiences particularly those emanating from psychopharmacological action. Written by a layman, this book is apparently intended for the general public.—M. V. Kline.

5240. Shor, Ronald E. (Harvard U.) **Physiological effects of painful stimulation during hyp-**

notic analgesia under conditions designed to minimize anxiety. *Int. J. clin. exp. Hypn.*, 1962, 10(3), 183-202.—A test of the physiological effects of painful stimulation during hypnotic analgesia was conducted under conditions designed to minimize anxiety. No significant differences were obtained between the experimental conditions. The interpretation was advanced that, inasmuch as the subjective experience of pain is eliminated during hypnotic analgesia, those physiological reactions do not occur which would otherwise ordinarily result from the stressful or threatening qualities of the painful stimulation. It was further advanced that anything else which minimizes the incidental anxiety component of the total pain experience can have an effect similar to that of hypnotic analgesia.—C. S. Moss.

5241. Spankus, Willard H., & Freeman, Linda G. Hypnosis in cerebral palsy. *Int. J. clin. exp. Hypn.*, 1962, 10(3), 135-139.—Hypnosis was used with 19 cerebral palsy patients to determine its value in the treatment of this condition. 4 patients demonstrated definite benefit; however, in general, the results were not remarkable. Interpersonal relationships developed during therapy were probably as important in the improvement of the patient as was the hypnotic state itself.—C. S. Moss.

5242. Strosberg, I. M., & Vics, I. I. (262 S. Main Ave., Albany, N. Y.) Physiologic changes in the eye during hypnosis. *Amer. J. clin. Hypn.*, 1962, 4(4), 264-267.—The reduction of the blood supply in the vascular anastomosis, the greater reluctance of the arcades, the change in the curvature of the cornea, and the engorging of the vessels on the sclera all indicate that physiologic changes take place in the eye during hypnosis. These changes may quite possibly have counterparts in subepithelial areas elsewhere in the body.—M. V. Kline.

5243. Valett, Robert E. (U. Canterbury, New Zealand) Psychological training in hypnosis in New Zealand. *Int. J. clin. exp. Hypn.*, 1962, 10(2), 119-121.—Brief description of a recently developed university training course in hypnosis.—C. S. Moss.

5244. Webb, Robert A. (Alabama State Hosp.) The postural sway measurement of suggestibility: A methodological and reliability study. *Int. J. clin. exp. Hypn.*, 1962, 10(3), 155-161.—2 disadvantages of the postural sway suggestibility measure are ordinal scaling and nonnormal distribution of scores. Advanced as a partial solution to these problems was the method of measuring the degree of opposite responses while considering zero as just another scale value. This method produces normally distributed data drawn from an interval scale; the test-retest reliability coefficient was .76.—C. S. Moss.

5245. Webster, Raymond B. (Martin Marietta Corp.) The effects of hypnosis on performance on the H-T-P and MPS. *Int. J. clin. exp. Hypn.*, 1962, 10(3), 151-153.—Impressionistic analysis supported the view that hypnosis Ss provide richer protocols in the House-Tree-Person projective technique than in the waking state. A quantitative analysis of subtest and total scores on the Minnesota Personality Scale in the 2 states was insignificant.—C. S. Moss.

5246. Weitzenhoffer, Andre M. (Stanford U.) Estimation of hypnotic susceptibility in a group situation. *Amer. J. clin. Hypn.*, 1962, 5(2), 115-126.—A method is described for evaluating group

hypnotic susceptibility on a standardized basis.—M. V. Kline.

5247. Wiseman, Richard J., & Reyher, Joseph. (Michigan State U.) A procedure utilizing dreams for deepening the hypnotic trance. *Amer. J. clin. Hypn.*, 1962, 5(2), 105-110.—A technique is reported which utilizes the sleep-dream cycle to facilitate a deepening of the hypnotic trance.—M. V. Kline.

5248. Woolington, J. M., & Markwell, Earl D., Jr. (U. Tulsa) The influence of hypnosis on self-attitudes. *Int. J. clin. exp. Hypn.*, 1962, 10(2), 109-113.—A study of the self-attitudes of Ss, measured on the Gough Adjective Check List, as they were affected by hypnosis. No significant alterations occurred as a result of hypnosis, regardless of depth.—C. S. Moss.

5249. Yanovski, Alexander G. (5501 Greene St., Philadelphia, Pa.) The feasibility of alteration of cardiovascular manifestations in hypnosis. *Amer. J. clin. Hypn.*, 1962, 5(1), 8-16.—An approach, using hypnosis, for inhibiting cardiovascular responses to psychic stimuli or interrupting cardiovascular disturbances of psychosomatic origin was described. Methodological considerations with respect to choice of Ss, criteria of effectiveness, and other aspects of experimental design were presented as were the hypnotic techniques employed.—M. V. Kline.

DREAMS

5250. Berger, R. J., Olley, P., & Oswald, I. (U. Edinburgh, England) The EEG, eye-movements and dreams of the blind. *Quart. J. exp. Psychol.*, 1962, 14(3), 183-186.—It was found that characteristic frontal EEG waves significantly often precede the rapid eye movements of dreaming. The rapid eye movements were absent during dream periods of 3 men with life-long blindness, and of 2 men, 30 and 40 years blind, respectively, but were present during dream periods in 3 men blind only 3, 10, and 15 years, respectively.—*Journal abstract.*

5251. Fromm, E. (U. Chicago) Let's keep our concepts straight. *Percept. mot. Skills*, 1962, 15(1), 217-218.—In criticism of an article by Roth, this author contends that visual imagery in dreams is a subjective phenomenon, not an objective stimulus perceived correctly or incorrectly. It cannot be used as evidence of faulty sensory perception, nor as the basis for drawing conclusions about the relation of perception and motility.—W. H. Guertin.

5252. Jones, R. M. (Brandeis U.) On the metaphor of the dream censor. *Percept. mot. Skills*, 1962, 15(1), 45-46.—Dreams are discussed in relation to perception and Freud's "censor." New concepts and approaches to dream analysis are urged.—W. H. Guertin.

5253. Kahn, Edwin; Dement, William; Fisher, Charles, & Barmack, Joseph E. (City Coll. New York) Incidence of color in immediately recalled dreams. *Science*, 1962, 137(Whole No. 3535), 1054-1055.—With careful interrogation close to the time of dreaming, color was found to be present in 82.7% of the dreams. This figure is substantially higher than figures reported by previous investigators using questionnaire and other methods.—*Journal abstract.*

5254. Roth, N. More on the metaphor of the dream censor. *Percept. mot. Skills*, 1962, 15(1),

82.—A reply to comments by Jones (see 37: 5252) on an earlier paper (see 37: 3394) discusses further dreams as perceptions and the place of Freud's "censor."—*W. H. Guertin*.

5255. Rubiner, William. Concerning dream life. *Amer. Imago*, 1961, 18(4), 318-329.—This translation from the original German of an article published in 1882 shows something of the intellectual atmosphere in which Freud worked. In many respects, the author appears to anticipate Freud but concludes "Dreams are really shadows, empty, meaningless, small air bubbles, imagination, images without content or value, to which only superstitious and dull brains attach serious significance."—*W. A. Varvel*.

5256. Ward, Clyde H. Some further thoughts on the examination dream. *Psychiatry*, 1961, 24(4), 324-336.—After a brief review of literature, and a formulation of the language of misbehaving in terms of guilt, 8 examples of examination dreams are presented.—*C. T. Morgan*.

CASE HISTORIES

5257. Aboulker, P., & Chertok, L. (Hopital Cochin, Paris, France) Emotional factors in stress incontinence. *Psychosom. Med.*, 1962, 24(5), 507-510.—After pointing out that there is not a single reference to this problem in the literature, the authors describe a case where surgery did not help and the history indicated a very unhappy childhood. Supportive psychotherapy and hypnosis removed the symptom. The patient has been functioning adequately now for 3 years.—*W. G. Shipman*.

5258. Bhaskaran, K. Borderline schizophrenia. *Pratibha*, 1959, 2(1), 8-13.—A case of borderline schizophrenia is described, with results of psychiatric examination and modified MMPI.—*U. Pareek*.

5259. Brody, Morris W. The psychiatric case conference. *Psychiatry*, 1961, 24(4), 361-366.—"The clinical case conference is one of the most important methods for the teaching and learning of psychiatry. It is a form of study in which, at one time or another, each participant serves as preceptor or student." Some prescriptions for the handling of the case conference are given.—*C. T. Morgan*.

5260. Kaplan, S. M., & Hetrick, E. S. (Cincinnati General Hosp.) Thyrotoxicosis, traumatic neurosis, and the dangerous environment. *Psychosom. Med.*, 1962, 24(3), 240-248.—A case is reported of a 28 year old man who experienced both thyrotoxicosis and traumatic neurosis soon after he had been in a bus accident. The difficulties in differentiating between some of his symptoms of these 2 disorders suggested a relationship between them. Several hypotheses are presented concerning the psychophysiological mechanisms of normal and abnormal thyroid function.—*W. G. Shipman*.

5261. Parsons, Anne. A schizophrenic episode in a Neapolitan slum. *Psychiatry*, 1961, 24(2), 109-121.—A "case history of a young psychotic woman hospitalized in Naples, Italy," viewed from the standpoint of an anthropologist.—*C. T. Morgan*.

5262. Sacerdoti. Étude pluridimensionnelle d'un adolescent sacrilège: Actions apparemment obsessionnelles, structure paranoïaque. [A pluridimensional study of an adolescent sacrilege: Apparently obsessive actions, paranoid structure.] *Encephale*,

1962, 51(2), 198-201.—Case presentation of a 16-year-old boy who committed repeated sacrilegious acts of nocturnal profanation of churches, ciboria, and consecrated hosts. The diagnostic problem is discussed.—*W. W. Meissner*.

5263. Schrandt, Carmen. Angsthysterie bei einem zehnjährigen Mädchen. [Anxiety hysteria in a 10-year-old girl.] *Psyche, Stuttgart*, 1962, 16(2), 100-110.—Psychoanalysis of a 10-year-old girl with intense father identification and penis introject. The latter was experienced anal-sadistically until a male exhibitionist disturbed the structure, giving rise to an attack of death anxiety. In defense against object loss she displaced the introject outwards in the image of a bad wolf, at the same time seeking to protect herself against the loss of the maternal object by constantly having a female companion.—*E. W. Eng*.

5264. Slavson, S. R. (Children's Village, Dobbs Ferry, N. Y.) Patterns of acting out of a transference neurosis by an adolescent boy. *Int. J. group Psychother.*, 1962, 12(2), 211-224.—A case history of a 14½-year-old boy.—*L. N. Solomon*.

PSYCHIATRIC SERVICES

5265. Szasz, Thomas S. (State U. New York, Upstate Medical Cent., Syracuse) Mind tapping: Psychiatric subversion of constitutional rights. *Amer. J. Psychiat.*, 1962, 119(4), 323-327.—The argument is developed that "the recent practice of pretrial psychiatric examination of defendants, on the order of the court and against the wishes of the accused, promises to effectively nullify some of our most important constitutional rights—namely, the right to a speedy trial and the right, in the words of Louis D. Brandeis, 'to be let alone.'"—*N. H. Pronko*.

5266. Whittington, H. G. Evaluation of the treatment program in a college psychiatric clinic. *Comprehen. Psychiat.*, 1961, 2(6), 329-337.—Using 158 Ss, there was 54% improvement for males and 67% improvement for females. For more than ½ the students seen, psychotherapy was necessary after completion of their collegiate education. It is by no means true that emotional problems in college are transitory upsets in essentially normal people. The initial experience of psychotherapy in college is the first step in coping with longstanding neurotic problems.—*D. Prager*.

5267. Wijsenbeck, Henricus. (Geha Psychiatric Hosp. Petah Tikva) Psychiatric and social work in a rehabilitation hospital. *Dap. refuim*, 1961 (Suppl.), 150-159.—"The new approach in psychiatry is existentialist, social, and anthropological based on the premise—now universally accepted—that man is inseparable from the world surrounding him." The work of an experimental rehabilitation center, founded in 1957 by the Sick Fund in Israel and intended for chronic psychiatric patients, is described. The main idea is to establish an open door hostel, run by its inhabitants and without its own medical staff, which could serve as a bridge between hospital and normal life. It must lead gradually to normal life and work outside. Psychotherapy is based on group therapy and rehabilitation treatment. 20 out of 28 discharged patients returned to normal life. (French summary)—*H. Ormian*.

Institutional Care

5268. Gilliland, Gwyneth Witney, & Sommer, Robert. A sociometric study of admission wards in a mental hospital. *Psychiatry*, 1961, 24(4), 367-376.—"While depressives tend to choose other depressives as friends . . . they also form a substantial number of relationships with paranoid patients. Schizophrenics appear to be attracted to alcoholics, although they also choose friends among other schizophrenics and paranoids. Paranoids prefer to choose among the alcoholics and depressives in establishing relationships." Alcoholics tend to choose alcoholics, and choose other types of friends only when alcoholics are not present.—C. T. Morgan.

5269. Hagen, Elizabeth, & Wolff, Luverne. Nursing leadership behavior in general hospitals. New York: Teachers College Columbia Univ., Institute of Research and Service in Nursing Education, 1961, viii, 198 p.—Report of a study which investigated: (a) What specific behaviors by nursing administrators, supervisors, and head nurses are perceived as effective or ineffective in achieving the goals of respective nursing service administrations? (b) To what extent are factors of size of the hospital, urban-ruralness of the hospital, experience and education of the person holding the leadership position, and the organizational pattern within the hospital related to the perception of effective and ineffective leadership behavior? (c) What kinds of leadership are associated with a favorable psychological climate among staff nurses? Data were collected in 9 large and 6 small private hospitals in Connecticut, Maryland, New Jersey, New York, and Pennsylvania. Implications for staff nurses, supervisors, administrators, and future research are discussed.—C. W. Page.

5270. Kitchener, Howard; Sweet, Blanche, & Citrin, Eve. Problems in the treatment of impulse disorder in children in a residential setting. *Psychiatry*, 1961, 24(4), 347-356.—"The ideas presented in this paper are based on the findings from an experiment in the treatment of aggressive acting-out boys. There were six children in the study, which was of 5 years' duration. . . [Very] intensive treatment efforts were possible in the milieu and in psychotherapy. . . Explicitly, this paper is concerned with the technical issues entering into the management of aggressive behavior and the choice of interpretation."—C. T. Morgan.

5271. Lehrman, N. S. Follow-up of brief and prolonged psychiatric hospitalization. *Comprehen. Psychiat.*, 1961, 2(4), 227-240.—Data presented from 3 hospitals in different states seem to indicate that prolonged hospitalization in itself may be harmful to psychiatric patients and the longer they are exposed to the hospital the more adversely they sometimes seem to be affected. All 3 groups seemed to show poorer results than Bleuler obtained 65 years ago. The presence of inpatient psychotherapy had, if anything, a negative effect on outcome. It might be in order to consider ending longterm psychotherapeutic hospitalization as well as attempting to shorten psychiatric hospitalization in general. It is emphasized that this study is not exhaustive.—D. Prager.

5272. Pfautz, Harold W., & Wilder Gita Z. (Brown U.) The ecology of a mental hospital.

J. Hlth. hum. Behav., 1962, 3(2), 67-72.—An ecological study of personnel in a small private hospital revealed relationships between physical and psychological distance. An "Index of Dissimilarity" provided an objective measure which revealed a host of social psychological implications: For example, communication and function had to bridge status barriers. Patients seemed to be drawn from preferred neighborhoods. There was a numerical predominance of the patron group. In addition, the index of dissimilarity was greatest between the professional staff and the day patients, whereas the nonprofessional staff were much "closer" to the patients. It was concluded that the social isolation of a mental hospital can be as unfortunate as its traditional geographical isolation.—L. A. Ostlund.

5273. Scheff, T. J. (U. Wisconsin) Differential displacement of treatment goals in a mental hospital. *Admin. Sci. Quart.*, 1962, 7(2), 208-217.—The displacement of treatment goals in a mental hospital is described as it varies with different wards and different shifts. The degree of displacement is related to characteristics of the wards and shifts. Hypotheses are developed about the determinants of goal displacement in social groups. 3 determinants are discussed: characteristics of the goals themselves, amount of regulation of staff behavior by outside groups, and the availability of role imagery to structure staff-inmate contacts.—V. S. Sexton.

5274. Sivadon, P. (Hôpital Brugmann, Brussels) Le problème de l'espace à l'hôpital psychiatrique. [The problem of space in psychiatric hospitals.] *Acta neurol. psychiat. Belg.*, 1962, 62, 243-239.—Studies have shown the essential part played by space in the structuration of personality. The author emphasizes the effect of space on mental patients which might be responsible for agitations, phobias, and even regressing tendencies. He draws practical conclusions from these findings as to the space arrangements in mental hospitals.—V. Sanua.

5275. Stanton, Alfred H. Milieu therapy and the development of insight. *Psychiatry*, 1961, 24 (2, Suppl.), 19-29.—A discussion of the problems of creating and managing a therapeutic hospital environment.—C. T. Morgan.

5276. Surber, Grace P. (New Hampshire State Hosp., Concord) The exit interview. *Ment. Hosp.*, 1962, 13(9), 466-467.—41 consecutive discharges from a state mental hospital were seen by a psychologist for a semistructured 10-item interview. Help gained from attendants and other patients and from transfer to open wards figured prominently in the responses.—L. Gurel.

5277. Szasz, Thomas S. (State U. New York, Syracuse) Open doors or civil rights for mental patients. *J. indiv. Psychol.*, 1962, 18(2), 168-171.—Unlocking doors is insufficient. We must no longer avoid facing some of the larger issues, e.g., care of the mentally ill is not primarily a medical affair, civil commitment should be abolished, therapeutic and custodial functions must be separated. The hospitalized mental patient is society's scapegoat against whom discrimination is practiced as well as upheld by law.—A. R. Howard.

5278. Tanaka, Henry. Group living on a psychiatric ward. *Soc. Wk.*, 1962, 7(4), 51-58.—A

test of the theory that much of the psychiatric patient's illness is traceable to insufficient motivation for the individual to fulfill the demands of roles given to him by society. Hospitalized mental patients were organized into formal groups that conducted meetings, held orientation sessions, arranged improvement and recreation committees, etc. This organized the patients into active societies which motivated them to improve. Results were good.—G. Elias.

Community Services

5279. Crockett, Richard W. (Ingrebourne Centre, St. George's Hosp., Hornchurch, Essex, England) Initiation of the therapeutic community approach to treatment in a neurosis center. *Int. J. group Psychother.*, 1962, 12(2), 180-193.—A descriptive account of the introduction of the therapeutic community approach in a neurosis center is presented. Procedure included a change of the authority structure from a vertical to a horizontal one and the facilitation of maximum intercommunication through group discussion and the delegation of authority.—L. N. Solomon.

5280. Hoenig, J., & Srinivasan, Uma. Aspects of the mental health service: Past and present. *Pratibha*, 1959, 2(2), 13-25.—Analysis of the admission figures for 1953 of the mental hospital in Bangalore shows that admission rates and length of stay depend on such factors as distance of residence from the hospital and type of residence. It is better to have mobile peripheral psychiatric units.—U. Pareek.

5281. Mandelbrote, B., & Folkard, S. Some problems and needs of schizophrenics in relation to a developing psychiatric community service. *Comprehen. Psychiat.*, 1961, 2(6), 317-328.—In a follow-up study of 171 schizophrenics living in the community, 96 appeared to be well and only 3 seemed severely ill. 146 were fully welcomed by their families. 24 of 60 male patients were unemployed. 46 had financial problems. The patients seemed to be more aware of their personal and social problems than of problems related to their work and families. The help most sought was for medical and psychiatric outpatient assistance in obtaining work and for social clubs. Schizophrenics require long term support if they are to manage adequately in the community.—D. Prager.

5282. Rao, P. Madhu; Lalitamba, A. S., Dash, S., & Surya, N. C. The Child Guidance Clinic at All-India Institute of Mental Health. *Pratibha*, 1959, 2(2), 65-70.—An account of the workings of the clinic and an analysis of the population attending the clinic are given.—U. Pareek.

Case Work

5283. Shentoub, Vica. Fonction du test projectif dans un travail d'équipe. [Function of the projective test in clinical teamwork.] *Psychol. Franc.*, 1962, 7(2), 126-133.—A discussion and an illustrative case are presented showing the effects of cooperative work by a team representing psychiatry, psychology, and psychotherapy. Emphasis is on the need for mutual understanding in classification and terminology. Results with the TAT are compared with findings after extensive psychotherapy.—C. J. Adkins.

COUNSELING & GUIDANCE

5284. Anderson, R. P., & Anderson, G. V. (Texas Technological Coll.) Development of an instrument for measuring rapport. *Personnel Guid. J.*, 1962, 41(1), 18-24.—The Interview Rating Scale is described as a means of providing an operational definition of ideal rapport or effective communication in counseling interviews. Research has supported the effectiveness of the scale as a measure of rapport.—S. Kavruck.

5285. Chenault, JoAnn, & Seegars, James E., Jr. The interpersonal diagnosis of principals and counselors. *Personnel Guid. J.*, 1962, 41(2), 118-122.—Too little emphasis has been placed on personal factors in conflicts arising among administrative and guidance personnel. Measures of the interpersonal relationships of specific subgroups within guidance programs with identification of personality variables which could influence interpersonal problems in this area, appeared useful. Counselors and principals were found to be essentially dominant persons. Principals leaned toward the competitive side of the continuum and counselors toward the tolerant side. Principals preferred counselors to be firmer and more aggressive, even though this is seen as conflicting with the counseling ideal.—S. Kavruck.

5286. Cohn, Benjamin, & Sniffen, A. Mead. A school report on group counseling. *Personnel Guid. J.*, 1962, 41(2), 133-138.—A project concerned with underachieving 7th-grade boys who demonstrated acting-out behavior, supports the following recommendations: Teachers' attitudes with respect to these pupils should lean more toward a sincere concern for their welfare. Teachers should offer and even create as many opportunities for these pupils as possible. A school administration should consider an ungraded approach for these pupils. Such pupils should be included in group projects outside of their "chosen" group relationships. The reading specialist should provide individual reading sessions which could lead to discussion of personal feelings and attitudes. The school should refrain from use of preconceived labels for such pupils.—S. Kavruck.

5287. Goodstein, Leonard D. (U. Iowa) Problems in counseling older disabled persons. *J. Rehabil.*, 1962, 28(4), 24-25.—The counseling of the older client may be somewhat more complicated than with younger individuals. It can be made effective, however, if there is an adequate understanding of the problems of the aging and the transference-countertransference factors which play a highly significant role in determining the attitudes of counselor and client.—M. A. Seidenfeld.

5288. Grossman, Alvin. (California State Dept. Education, Sacramento) A new approach to guidance research using an electronic computer. *Calif. J. educ. Res.*, 1962, 13(4), 170-173.—Recommended, in a general way, is the use of operations research techniques in the development of optimum methods for decision making ("problems of grand strategy") and of optimum methods for sustaining a program or operation of a program ("such as assignments of special staff, registration activities, and optimal counseling loads").—T. E. Newland.

5289. Heilbrun, A. B., Jr., & Sullivan, D. J. The prediction of counseling readiness. *Personnel Guid. J.*, 1962, 41(2), 112-117.—The study attempted

to develop empirical scales to predict the readiness of college students for personal adjustment counseling. Adjectives, differentially endorsed by clients who terminated prematurely and those who stayed in personal counseling, were included in a male and female form of the Counseling Readiness Scale (CRS). College norms were developed. The male CRS was shown to distinguish between male vocational-educational counseling clients who failed to appear for interview and those who had more than the usual number of interviews. The female CRS showed no significant difference in predicting directions.—S. Kavruck.

5290. Klink, Thomas W. (Menninger, Found.) **Some categories of religious data significant for the clinician.** *J. pastoral Care*, 1962, 16(2), 72-80.—A summary of recent empirical studies under the headings: (a) Religion as an Aspect of the Social/Cultural Matrix for Personality; (b) Religion as an Expression of the Self-Concept; and (c) Religion as Source for Secondary Process Forms, for Socialized Expression of Primary Process, Repressed Material Plus Attendant Emotional Energy.—O. Strunk, Jr.

5291. Kulshreshtha, S. K. **They also look to us for guidance.** *Shiksha*, 1962, 14(3), 103-116.—A case of counseling an adolescent boy having emotional difficulties is described in detail from the beginning to the successful termination of counseling.—U. Pareek.

5292. Rottschaefer, R. H., & Renzaglia, G. A. (Southern Illinois U.) **The relationship of dependent-like verbal behaviors to counselor style and induced set.** *J. consult. Psychol.*, 1962, 26(2), 172-177.—College students evaluated for frequency of dependent statements made in a 1st interview. Reflective counselors obtain fewer dependent statements than leading counselors. Ss given a set to expect a leading counselor also make more dependent statements. There was no interaction between set and counselor type.—E. R. Oetting.

5293. Seidenfeld, Morton A. (Office Vocational Rehabilitation, Washington, D. C.) **The need-oriented profession of rehabilitation counseling: Implications for selection, training and services.** *J. Rehabil.*, 1962, 28(4), 11-13.—A discussion of some of the fundamental needs in the selection, training, and utilization of the rehabilitation of the physically and mentally disabled.—M. A. Seidenfeld.

5294. Shimberg, Benjamin, & Katz, Martin R. (Educational Testing Service, Princeton, N. J.) **Evaluation of a guidance text.** *Personnel Guid. J.*, 1962, 41(2), 126-132.—The evaluation study indicates that group guidance courses using Katz's *You: Today and Tomorrow* (1959) may result in pupils' increased self-understanding and greater awareness of factors to consider in educational and occupational planning. It is cautioned, however, that no basis exists for concluding that such courses substitute for individual counseling.—S. Kavruck.

MARRIAGE & FAMILY PROBLEMS

5295. Arnold, Arthur. (U. North Carolina) **The implications of two-person and three-person relationships for family psychotherapy.** *J. Hlth. hum. Behav.*, 1962, 3(2), 94-97.—It is pointed out that in practice, psychotherapists seldom work directly with

the family as the treatment unit in psychotherapy. This is attributed to the sociological formulation that "relatedness is essentially dyadic, and that triadic turmoil, a shifting reactive pattern of dyadic alliances, is intrinsic to a threesome. Such phenomena touch upon the relatedness needs of therapist as well as patient, and require specific understanding for their utilization in a therapeutic regimen."—L. A. Ostlund.

5296. Biermann, Gerd. **Die Familien-Neurose in ihrer Projektion im Familien-Zeichen-Test.** [Family neurosis as projected in the Family Drawing Test.] *Psyche, Stuttgart*, 1962, 16(2), 127-141.—A common form of family neurosis today centers around the inadequate father whose defenses reflect the character of his own neurotic development. 4 cases of disturbed children from such neurotic families are viewed in the context of their drawings made to the following instructions: (a) "draw a family"; (b) "imagine your family as an animal family and draw them that way"; (c) "a magician comes and puts your family under a spell. You can draw them any way you want to."—E. W. Eng.

5297. Bricklin, B., & Gottlieb, S. G. **The prediction of some aspects of marital compatibility by means of the Rorschach test.** *Psychiat. Quart. Suppl.*, 1961, 35(2), 281-303.—8 couples were studied in 16 sessions of group psychotherapy. 3 facets of the Rorschach movement response were used to compute a Marital Compatibility Prognostic Score. The smaller the difference in numbers of M responses between a husband and wife, the fewer the nonconcordances in M qualities; and the fewer the Sex Confused and Distorted M, the greater the probability that compatibility will improve as communication between husband and wife increases. However, not all married couples benefit from increased communication. Further experimental work is called for in this area.—D. Prager.

5298. Jackson, Don D., & Weakland, John H. **Conjoint family therapy: Some considerations on theory, technique, and results.** *Psychiatry*, 1961, 24(2, Suppl.), 30-45.—A discussion of the theory and of the results of conjoint family therapy with 18 families.—C. T. Morgan.

5299. Mitchell, Howard E., Bullard, James W., & Mudd, Emily H. (U. Pennsylvania) **Areas of marital conflict in successfully and unsuccessfully functioning families.** *J. Hlth. hum. Behav.*, 1962, 3(2), 88-93.—Data from 200 cases of marriages in conflict and 100 successful marriages were used. Though many observations and much data were gathered on the latter group, the findings were based solely upon the Marriage Adjustment Schedule 1-A. "It was found that both groups rank their problem areas in the same order: the economic problems rank highest and religious and educational problems lowest. The data also indicated that husbands and wives in each group, although they had been questioned quite separately, agreed in general about the problem areas and their order of frequency." Moreover, it was found that even happily married couples admit to problems. Cultural implications include: the materialistic pressures on family living; the transitional role of husband and wife in the American home; and the attitudes, values, and goals currently prevalent for young people seeking mates and for couples already married in the United States.—L. A. Ostlund.

5300. Smith, L. J. Home dynamics study: A search for dimensions of the family climate. *Charact. Potential*, 1962, 1(1), 45-48.—A questionnaire containing items related to 63 personality and situational variables was administered to over 400 parents. The parents independently rated the perceived influence of the 63 factors on themselves and their mate as they were in the process of teaching one child a character attitude. Each of these factors was correlated with every other factor and these correlations subjected to cluster analysis. Several dynamics were discovered which are believed to be operating in favorable and unfavorable family climates for effective character education of children. A dynamic is defined as the interaction of 2 or more personality or situational variables which exert a force in the behavioral field. Action studies validated the findings and revealed that families who worked on one specific factor in a dynamic were more successful than those who worked on the whole dynamic.—*W. T. Penrod*.

MENTAL HEALTH & REHABILITATION

5301. Beley, A., & Faure, H. Enquête nationale d'hygiène mentale portant sur le devenir des modes d'assistance en neuropsychiatrie infanto-juvenile. [A national health investigation dealing with the methods of help in child and adolescent psychiatry.] *Hyg. ment.*, 1962, 51(3), 129-139.—The results of a questionnaire survey of French pediatricians and child psychiatrists sponsored by the French League of Mental Health are presented. The peculiar nature of childhood and adolescent problems and special needs for dealing with them are stressed. The practical problems in this area need better conception and formulation.—*W. W. Meissner*.

5302. Bonner, Hubert. (Ohio Wesleyan U.) Idealization and mental health. *J. indiv. Psychol.*, 1962, 18(2), 136-146.—"The psychologically healthy person . . . perceives himself as an active, self-affirming being who . . . has faith in achieving his ends,, if only by successive approximations. . . . shows the courage to envisage and to anticipate a challenging, and perchance a disappointing future."—*A. R. Howard*.

5303. Dunn, Halbert L. High level wellness. Arlington, Va.: R. W. Beaty, 1961. 244 p. \$4.50 (cloth); \$1.95 (paper).—29 short talks on various aspects of well-being, originally prepared for use on the radio.—*C. T. Morgan*.

5304. Ellis, Helen H. (U. New Mexico) The patient on leave: A qualified success story. *Ment. Hosp.*, 1962, 13(9), 491-493.—A 20% sample (N = 112) of patients on convalescent leave from New Mexico State Hospital was followed up in the community. The data "paints a grim picture . . . [and] point up the fact that the status of the convalescent mental patient is considerably less happy than we would like to think."—*L. Gurel*.

5305. Nikelly, Arthur G. (U. Illinois) Social interest: A paradigm for mental health education. *J. indiv. Psychol.*, 1962, 18(2), 147-150.—Education for mental health has failed mainly as a result of its emphasis upon psychoanalytic principles. It will succeed when it is aligned with the more meaningful concept of "social interest."—*A. R. Howard*.

5306. Rosenthal, A. M. Five-year follow-up study of the patients admitted to the rehabilitation center of the hospital of the University of Pennsylvania. *Amer. J. phys. Med.*, 1962, 41, 198-211.—The dependency and employment status of those with frequently occurring disabilities, hemiplegia, amputation, paraplegia, rheumatoid arthritis, residual poliomyelitis, quadruplegia, and residual multiple sclerosis, were appraised on admission, on discharge, and on follow-up. With the exception of those with multiple sclerosis, a reasonably high percentage achieved independence but only sizeable fraction of amputees and polios hold jobs.—*H. J. P. Schubert*.

5307. Stafford-Clark, David; Mallett, Bernard L., & Willis, James H. P. Frontiers of research in mental health. *Trans. All-India Inst. Ment. Hlth.*, 1961, 2, 37-61.—The contribution of modern psychiatric research to the restoration of the individual to reasonable happiness and well-being can be reviewed under the study of: (a) his basic constitution and personality, (b) his physical interaction with his environment, and (c) the mental stresses to which the pattern of his life submits him. Interest in the significance of abnormal patterns of electrical activity in the brain in relationship to patterns of adult behavior, and particularly those which seem to arise on a constitutional basis, has led to findings in which disordered behavior is in many instances directly correlated with abnormalities in the EEG record.—*J. DiGiovanni*.

5308. Ullman, Montague. Behavioral changes in patients following strokes. Springfield, Ill.: Charles C Thomas, 1962. viii, 103 p. \$5.25.—Psychiatry can be useful in understanding the impact and effect of a stroke upon the patient and in plotting subsequent treatment and rehabilitation plans. The text largely consists of the presentation of 64 cases that have suffered cerebrovascular accidents. The variability of reaction to stroke is dependent not solely upon the type, location, or extent of the damage but upon the premorbid personality and the current life situation. Patients can either integrate the stroke experience at a realistic level, submit in a passive manner, or may deny the fact and implication of the illness. (17-item bibliogr.)—*D. A. Santora*.

ABNORMAL PSYCHOLOGY

5309. Huxley, A. Visionary experience. In G. Nielson (Ed.), *Proceedings of the XIV International Congress of Applied Psychology. Vol. 4. Clinical psychology* (see 37: 4119). Pp. 11-25.—After discussing ways of gaining access to the visionary world, the article describes means of inducing access and the nature of visionary experience. Concluding sections deal with visionary experiences and religion and folklore and with visionary arts.—*B. T. Jensen*.

5310. Inhelder, B. (U. Geneva) A contribution of the genetic method to the study of various phenomena in the psychopathology of thinking. In G. Nielson (Ed.), *Proceedings of the XIV International Congress of Applied Psychology. Vol. 4. Clinical psychology* (see 37: 4119). Pp. 154-166.—Reference is made to current and published research to argue that the genesis of pathological thinking should be studied as well as comparing it with normal adult thinking.—*B. T. Jensen*.

5311. Lindemann, E. (Massachusetts General Hosp., Boston) Preventive intervention in situational crises. In G. Nielson (Ed.), *Proceedings of the XIV International Congress of Applied Psychology. Vol. 4. Clinical psychology* (see 37: 4119). Pp. 69-88.—Reaction to bereavement is discussed as are "grief work" and abnormal reactions. Several different kinds of instances of intervention are presented as the author urges interprofessional cooperation. (19 ref.)—B. T. Jensen.

5312. Østergaard, L. (Rigshospitalet, Copenhagen, Denmark) On "concreteness" in abnormal thinking. In G. Nielson (Ed.), *Proceedings of the XIV International Congress of Applied Psychology. Vol. 4. Clinical psychology* (see 37: 4119). Pp. 199-211.—". . . a frame of reference borrowed from developmental psychology may be more suitable to a differentiated description of regressive thinking than is the dichotomy of concrete-abstract." A 3-level model is proposed.—B. T. Jensen.

5313. Weil, A. P. Psychopathic personality and organic behavior disorders: Differential diagnostic and prognostic considerations. *Comprehens. Psychiat.*, 1961, 2(2), 83-95.—"This paper surveys early exogenous damage to personality development—the development of psychopathic personality and organic behavior disorders—in the light of differential diagnosis and prognostic considerations." Similar clinical pictures must be very carefully observed to make differential diagnoses. Organic damage may be superimposed upon a schizoid constitution or a psychopathic disorder. In prognosis the significant factor is the child's striving toward mastery and enjoyment of achievement, i.e., the capacity to neutralize.—D. Prager.

PHYSICAL HANDICAPS

5314. Jordan, Thomas E. (Tulane U.) Research on the handicapped child and the family. *Merrill-Palmer Quart.*, 1962, 8(4), 243-260.—Research on handicapped children has developed to current interest in the effects of disease in children on the family unit. Constructs such as crisis, attitudes, bereavement, independence, etc. have been used in conceptualizing recent work. (114 ref.)—E. L. Robinson.

5315. Seifert, Karl Heinz. (Im Schulzengarten 2, Neckargemünd) Kompensatorische Leistungsmöglichkeiten Mindersinniger im Bereich der Haptik. [Compensatory achievement potential of handicapped persons in the field of haptics.] *Z. exp. angew. Psychol.*, 1962, 9(1), 54-103.—The observation that sensorially handicapped persons excel in the haptic perceptual field was tested experimentally with blind, deaf-dumb, and normal children. Macromorphic discriminations (surface-texture, thickness, etc.) could be made with greater certainty by handicapped persons. Macromorphic discriminations (object recognition, form perception) were only better under special conditions. Blind persons showed superior distinction of familiar objects, but this advantage did not extend to unfamiliar ones. Deaf-dumb persons had difficulty in identifying unfamiliar objects because their objective world was limited by the language handicap. Teaching practices with handicapped persons based on the results of these experiments are discussed. (49 ref.)—W. J. Koppitz.

5316. Silverstein, A. B. (Pacific State Hosp.) Comment on Levi's "Orthopedic Disability as a Factor in Human-Figure Perception." *J. consult. Psychol.*, 1962, 26(1), 9-10.—"Levi's specific hypotheses . . . do not constitute a decisive test of her general hypothesis." Levi presents in rebuttal "a complete list of mean choices for all three experimental groups."—E. R. Oetting.

Blindness

5317. Cole, Malvin; Schutta, Henry S., & Warrington, Elizabeth K. (National Hosp., London, England) Visual disorientation in homonymous half-fields. *Neurology*, 1962, 12(4), 257-263.—3 cases were studied to obtain information on (a) "the relationship between the visual disorientation and the visual field defect" and (b) "the contribution to defective localization made by difficulties in using the upper limbs. . . . Two patients with unilateral visual disorientation associated with hemiambyopia were studied by means of light of variable intensities. It was found that the hemiambyopia was not the basis for the disorientation. A control patient with a bi-temporal field defect and no disorientation gave further evidence for this viewpoint. The disability appears to be one of vision and not one of reaching."—R. Gunter.

5318. Dinnerstein, A. J., & Wolfe, M. (New York Medical Coll.) Tactile slit scanning of letters. *Percept. mot. Skills*, 1962, 15(1), 135-138.—4 Ss were each given 20 practice sessions on a task requiring tactile recognition of letters. The letters could be explored only through a narrow slit (slit scanning). Speed and accuracy on this task proved as adequate as previously reported speed and accuracy in tactile discrimination of the whole letter. The results are relevant to the problem of designing reading machines for the blind.—W. H. Guertin.

5319. Fujiwara, Takako. [A study on language of the blind.] *Psychol. Blind, Tokyo*, 1961, 5, 1-9.

5320. Hara, Hiroshi. [Magnifying of life-space of a child after eye-opening operation.] *Psychol. Blind, Tokyo*, 1960, 4, 14-20.

5321. Imamura, Kenichiro, & Tada, Sayoko. [Heterosexual interest of blind children.] *Psychol. Blind, Tokyo*, 1960, 4, 27-30.

5322. Kato, Yasuaki, & Tanaka, Hideo. [Influence of visual factors on tactual-kinesthetic form discrimination.] *Psychol. Blind, Tokyo*, 1960, 4, 1-3.

5323. Kusaiima, Tokisuke. [Language life and guidance of personality of the blind.] *Psychol. Blind, Tokyo*, 1961, 5, 53-60.

5324. Lukoff, I. F., & Whiteman, M. Intervening variables and adjustment: An empirical demonstration. *Soc. Wk.*, 1962, 7(4), 92-101.—A general principle (intervening variable) can be utilized to develop valuable individual predictions. From the principle that a blind person's feelings of independence will be related to the amount of support given him by society, individual predictions were derived and proven.—G. Elias.

5325. Machida, Kakuko. [Blind children and mass communication.] *Psychol. Blind, Tokyo*, 1960, 4, 30-44.

5326. Matsubara, Toshimi. [A survey of economic environment of pupils in schools for the blind.] *Psychol. Blind, Tokyo*, 1961, 5, 37-41.

5327. Matsubara, Toshimi. [A survey of administration of intelligence test to pupils in schools for the blind.] *Psychol. Blind, Tokyo*, 1961, 5, 47-52.

5328. Muranaka, Yoshio. [On administration of personality test to blind children.] *Psychol. Blind, Tokyo*, 1961, 5, 29-36.

5329. Muranaka, Yoshio. [On administration of personality tests in schools for the blind.] *Psychol. Blind, Tokyo*, 1960, 4, 44-50.

5330. Narita, Haruko. [A study on speed of Braille-writing.] *Psychol. Blind, Tokyo*, 1961, 5, 9-15.

5331. Sato, Yasumasa. [Review of psychological studies of the blind in Europe.] *Psychol. Blind, Tokyo*, 1960, 4, 61-69.

5332. Stopper, A. Aspetti dell'adattamento emotivo e sociale di un gruppo di ciechi in età evolutiva. [Aspects of emotional and social adjustment in a group of blind subjects in the development age.] *Riv. Psicol. soc.*, 1962, 29(1), 93-99.—The greater degree of maladjustment in the blind may be attributed to the immediate environment rather than the physical loss in itself.—L. L'Abate.

5333. Tagaya, Masao. [A case study of a feeble-minded blind child.] *Psychol. Blind, Tokyo*, 1961, 5, 47-52.

5334. Wantabe, Hachiro. [Educational achievement of pupils in schools for the blind: III. Concerning mis-answers.] *Psychol. Blind, Tokyo*, 1960, 4, 51-60.

5335. Yamamoto, Takeji. [Educational achievement of English of blind children.] *Psychol. Blind, Tokyo*, 1961, 5, 16-28.

Deafness

5336. Boskis, R. M. (Ed.) Izuchenie i obuchenie detei s nedostatkami slukha. [The study and teaching of children with hearing defects.] *Izv. Akad. Pedag. Nauk RSFSR*, 1961, No. 117, 134 p.—These transactions of the Institute of Defectology are devoted to reporting the results of research on the teaching and training of hard-of-hearing children. "Several principles of diagnosis of anomalous development" are discussed as are problems connected with the teaching of grammar, orthography, and speech formation. There is included a special report on pronunciation in deaf-mutes.—I. D. London.

5337. Dirks, Donald, & Carhart, Raymond. (Northwestern U.) A survey of reactions from users of binaural and monaural hearing aids. *J. speech hear. Discord.*, 1962, 27(4), 311-322.—206 users of binaural instruments, 211 monaural-aid users and 155 nonusers were studied by questionnaire. Normal hearers reported a substantially greater success in listening under each of 26 different environmental conditions. Both groups of hearing-aid users reported relatively poor performance in conditions with strong background noise. Users of binaural aids expressed strong beliefs in their superiority.—M. F. Palmer.

5338. Elliott, L. L., & Kraus, R. M. Followup of stapes mobilization patients. *USAF SAM tech.*

docum. Rep., 1962, No. 62-75. 6 p.—Questionnaires were sent to 93 patients who had undergone stapes mobilization operations. About 1 year after surgery 50% of the cases maintained at least a 25% improvement in hearing. Over 1/2 of the ears maintained a 25% improvement for 3 years or longer. Preoperation hearing level, amount of improvement immediately following surgery, and sex were unrelated to percent of hearing improvement. Patients over 40 years of age maintained proportionately greater improvement in hearing for at least 3 years. The operation tended to be more successful when surgery was required on only 1 ear than when it was required on both ears.—M. C. Payne, Jr.

5339. Farrimond, Thomas. (Liverpool, England) A test of the ability to lip-read—use visible cues of speech. *Amer. J. Psychol.*, 1962, 75(3), 477-481.—The present test was constructed for measuring "normal" adults. Test material includes a ciné-film of 2 parts: (a) lists of numbers spoken by a young woman with 6-second pauses, and (b) scenes of approximately 6 seconds with a woman speaking a short sentence after each. The product-moment correlation between the 2 parts of the test is +0.74.—R. D. Nance.

5340. Geist, Harold. (Gallaudet Coll.) Occupational interest profiles of the deaf. *Personnel Guid. J.*, 1962, 51(1), 50-55.—Results obtained with 931 employed male deaf using the Geist Picture Interest Inventory indicate that the interests of the deaf seem to be no different from those of the hearing in similar occupations.—S. Kavruk.

5341. Hinchcliffe, Ronald. (U. Iowa) The anatomical locus of presbycusis. *J. speech hear. Discord.*, 1962, 27(4), 301-310.—Review of the literature on presbycusis. An analysis of the known audiological measures that show changes with age indicates that the known histologic changes can account for the observed audiological changes. It seems likely that changes in the brain are primary for the over-all audiological picture of presbycusis.—M. F. Palmer.

5342. Jerger, J. Comparative evaluation of some auditory measures. *USAF SAM Rep.*, 1962, No. 62-26. 14 p.—A battery of auditory tests (air conduction audiogram, bone conduction audiogram, Spondee threshold, PB lists, Békésy tracings, Tone Decay test, and SISI test) were given once to 30 normal Ss and twice to 27 Ss with sensori-neural hearing loss. Test retest reliability coefficients and standard errors of measurement were computed for each test. The TDT test and amplitude of Békésy tracing for a continuous tone failed to differentiate effectively between normals and sensori-neurals.—M. C. Payne, Jr.

5343. Myklebust, H. R., Neyhus, A., & Mulholland, A. M. (Northwestern U.) Guidance and counseling for the deaf. *Amer. Ann. Deaf*, 1962, 107(4), 370-415.—The types of guidance problems encountered are described briefly. 8 types of information to be ascertained and evaluated are identified as: sensory abilities, intelligence, social maturity, personality, motor ability, communication abilities, interest patterns, and aptitudes. 5 case histories are presented. A list of devices which may be considered to measure the "aptitudes" is presented and characterized as to appropriate age levels and the abilities pur-

portedly measured. A related bibliography on guidance is included. (170 ref.)—*T. E. Newland.*

5344. **Studebaker, Gerald A.** (U. Oklahoma Medical Cent.) **Placement of vibrator in bone-conduction testing.** *J. speech hear. Res.*, 1962, 5(4), 321-331.—13 women and 7 men who were experienced Ss were used to compare forehead, vertex, and mastoid sites of placement of the bone-conduction vibrator in terms of threshold of audibility, intersubject and intrasubject variability, and the independence of the threshold from pathological changes in the middle ear. Lowest thresholds were obtained at mastoid position. Those measured at forehead exhibited significantly less intersubject variability than those measured from mastoid. There were no significant differences in intrasubject variability at the 3 positions. Thresholds measured from forehead were significantly less affected by middle-ear pathologies than thresholds measured from mastoid.—*M. F. Palmer.*

5345. **Zerlin, Stanley.** (Auditory Research Lab., VA, Washington) **A new approach to hearing-aid selection.** *J. speech hear. Res.*, 1962, 5(4), 370-376.—21 adult Ss with varying degrees of sensorineural involvement were studied. 6 different hearing aids were equated for gain and were presented, 2 at a time, with an input of running speech in the presence of noise. The pairs of hearing-aid outputs were simultaneously recorded onto a dual-channel tape, and the procedure repeated for all possible combinations of pairs of aids. Hearing-impaired Ss then made paired comparison choices on each set of 2 aids and ultimately generated a rank-ordered preference series. Intelligibility score results did not differentiate among the aids. Preference scores based on the paired comparison yielded clear-cut discriminations.—*M. F. Palmer.*

SPEECH DEFECTS

5346. **Albrecht, Margaret.** **A suggested neurological theory that justifies speech therapy for the adult aphasic.** *J. Rehabil.*, 1962, 28(4), 20-22.—Using Hebb's theories of learning and neural functioning and Penfield's suggestion of a central integrating system related to the reticular formation of the brain stem have led the author of this article to apply these concepts to speech therapy in adult aphasics.—*M. A. Seidenfeld.*

5347. **Arnold, G. E.** (New York Eye & Ear Infirmary) **Congenital language disability as a study model of evolution in communication.** *Lang. Speech*, 1961, 4(2), 113-132.—"The relation between various forms of congenital language disability and laterality are reviewed . . . the problem of cerebral dominance in man and its influence on linguistic activity is considered. The relevance of results with delayed auditory feed-back to such problems is discussed and the theory is presented that language disorders are the result of deficient homeostasis."—*A. E. Horowitz.*

5348. **Bankson, Nicholas W., & Byrne, Margaret C.** (Prairie Village Public Schools, Kan.) **The relationship between missing teeth and selected consonant sounds.** *J. speech hear. Discord.*, 1962, 27(4), 341-348.—304 children from a group of 444 from 18 classes of kindergarten and 1st grade were tested on a 40-item articulation test based on Tempelin's data and retested 4 months later. The original

group was divided into those with correct sound production and teeth intact, and those with incorrect production and teeth intact. A significant relationship was found between production of the initial, medial, and final /s/, and presence or absence of teeth among children who had used the sound correctly on a pretest.—*M. F. Palmer.*

5349. **Cheveleva, N. A.** (Inst. Defectology, RSFSR Acad. Pedagogical Sciences) **O zaniatiakh po ispravleniiu zaikanii v protsesse ruchnogo truda.** [Correction of stuttering by means of manual work.] *Dokl. Akad. Pedag. Nauk RSFSR*, 1961, No. 6, 117-120.—Preschool children were trained in speech while performing different manual tasks. It was found that the work which accompanied the speech ("I cut . . .") had the most facilitating effect, less, when it referred to a past action, and the least when it referred to a future action.—*A. Cuk.*

5350. **Fillenbaum, S., Jones, L. V., & Wepman, J. M.** (U. North Carolina) **Some linguistic features of speech from aphasic patients.** *Lang. Speech*, 1961, 4(2), 91-108.—"The free speech of each of 12 adult aphasic patients was examined with reference particularly to (1) the distribution of words according to grammatical function, and (2) sequential dependencies in form-class usage, and (3) stereotypy in vocabulary. The majority of the aphasic records departed considerably from normal usage (as defined by analysis of 12 control records) with similarity among some patients in the pattern of divergence. The measures used appear to be of particular value in revealing (i) semantic difficulties in word selection and (ii) difficulties in the sequencing of speech that occur along with syntactic losses."—*A. E. Horowitz.*

5351. **Freud, Esti D.** (New York Hosp.) **Functions and dysfunctions of the ventricular folds.** *J. speech hear. Disord.*, 1962, 27(4), 334-340.—The laryngeal structures originally did not entail vocal performance but were mainly a protective sphincter mechanism for the respiratory system. It is suggested that the vocal function is to signal the female. In the author's opinion psycho-sexual trauma produce considerable midline activity of the ventricular folds. When the ventricular folds are in various states of convergence, the voice produced is symptomatic for an insecure, anxious, or even neurotic personality.—*M. F. Palmer.*

5352. **Irwin, Ruth Beckey.** (Ohio State U.) **Speech therapy and children's linguistic skills.** *J. speech hear. Res.*, 1962, 5(4), 377-381.—111 2nd-grade children from 12 schools in the Columbus Public Schools, Columbus, Ohio, with normal hearing and no physical abnormalities were divided into 3 groups: articulatory problems receiving speech therapy, articulatory problems not receiving speech therapy, and children with normal speech. Articulatory adequacy, reading readiness, word recognition, and word meaning were measured for these Ss. Results of the study provided no evidence for any definite conclusions.—*M. F. Palmer.*

5353. **Martin, Richard.** (U. Minnesota) **Stuttering and perseveration in children.** *J. speech hear. Res.*, 1962, 5(4), 332-339.—Performance on 4 motor perseveration tests was measured for 52 physically "normal" stutterers and 109 nonstutterers between the ages of 8 and 13, with IQ scores between 80 and 130. There were 39 male and 13 female

stutterers, 56 male and 53 female nonstutterers. No significant differences in preservative behavior were found between stutterers and nonstutterers as a group or in any of various combinations of age and sex.—*M. F. Palmer.*

5354. **Palmer, John M.** (U. Washington) **Tongue thrusting: A clinical hypothesis.** *J. speech hear. Disord.*, 1962, 27(4), 323-333.—A review of the clinical picture of tongue thrust and consideration of the present status of knowledge in terms of symptomatology, etiology, and therapy. The hypotheses are essentially untested, and certainly the etiological theories are untested. Objective evidence is needed.—*M. F. Palmer.*

5355. **Quarrington, Bruce, Conway, Jerome, & Siegel, Nathan.** (U. Toronto, Canada) **An experimental study of some properties of stuttered words.** *J. speech hear. Res.*, 1962, 5(4), 387-394.—27 adult stutterers (of whom 6 were females) under treatment or investigation attending the speech clinic of the Toronto Psychiatric Hospital were studied for role of grammatical function, word position, and initial phoneme in the elicitation of stuttering. Initial and terminal word positions seemed to be significant in the elicitation of stuttering. A gradient of stuttering was found, among 4 grammatical categories, which differed from gradients described in earlier investigations.—*M. F. Palmer.*

5356. **Rochford, Gerard, & Williams, Moyra.** (Littlemore Hosp., Oxford, England) **Studies in the development and breakdown of the use of names: I. The relationship between nominal dysphasia and the acquisition of vocabulary in childhood.** *J. Neurol. Neurosurg. Psychiat.*, 1962, 25(3), 222-227.—"Thirty-two adults suffering from nominal dysphasia of different degrees of severity and 120 children aged 2 to 12 years were asked to name three common objects and four of their parts. Naming these seven items showed a highly consistent order of difficulty in both groups of subjects. There was also a close parallel between the degree of difficulty presented by a name and the age at which it was acquired. Prompting by 'cues' was given for all items which could not be named. In both children and dysphasic adults, the number of cues needed to elicit a correct response increased with the difficulty of the item but the type of cue most effective was not the same in both groups below the age of 9 years."—*M. L. Simmel.*

5357. **Rochford, Gerard, & Williams, Moyra.** (Littlemore Hosp., Oxford, England) **Studies in the development and breakdown of the use of names: II. Experimental production of naming disorders in normal people.** *J. Neurol. Neurosurg. Psychiat.*, 1962, 25(3), 228-233.—"Three studies are described in which attempts were made to produce paraphasic errors in normal subjects. The conditions studied involved lowered states of awareness following ECI, the introduction of time stress, and the introduction of verbal distraction. It was found that all three conditions produced naming difficulties in subjects with otherwise 'normal' speech, and that both the errors and the patterns of breakdown were strikingly similar to those seen in organic dysphasia. A further experiment was conducted to investigate the effect of frequency of word usage on ease of naming in both normal and dysphasic subjects. Some rela-

tionship between these two factors was found but it was suggested that other variables should also be investigated."—*M. L. Simmel.*

5358. **Schuell, Hildred, Jenkins, James J., & Carroll, John B.** (U. Minnesota) **A factor analysis of the Minnesota Test for Differential Diagnosis of Aphasia.** *J. speech hear. Res.*, 1962, 5(4), 349-369.—A nonselected sample of 157 aphasic Ss on 69 tests, comprising 679 items for auditory comprehension, visual and reading performances, speech and language performances, visuomotor and writing performances, numerical relations, arithmetic processes, and body images were studied by factor analysis. There is a dimension of general language deficit in aphasia that is not modality specific. There is no support for the hypothesis of a sensory motor, a receptive-expressive, or an input-output dichotomy in aphasia.—*M. F. Palmer.*

5359. **Soderbert, George A.** (Illinois State Normal U.) **Phonetic influences upon stuttering.** *J. speech hear. Res.*, 1962, 5(4), 315-320.—15 stutterers were rated on a 7-point severity scale. 10 males and 5 females, 12-41 years of age, read to 2 listeners, the E, and an unfamiliar male listener, who was always a person with some knowledge of stuttering. 3 lists of phrases were systematically varied from S to S. Each list contained 15 5-syllable phrases totalling 50 words. In List 1 all initial sounds were vowels, in List 2 all were voiced consonants, and in List 3 all were voiceless consonants. There was no evidence of differences among vowels, voiced consonants, and voiceless consonants with respect to mean frequency or mean duration of stuttering instances.—*M. F. Palmer.*

NEUROLOGICAL DISORDERS

5360. **Batten, Frederick E.** **Ataxia in childhood.** *Developm. Med. child Neurol. Suppl.*, 1962, No. 5, 13-25.—Of historical interest is the republication, in commemoration of Batten, of his 1902 (*Lancet*) article. He proposed 3 diagnostic categories: those instances noticed from earliest life (congenital cerebellar ataxia), those appearing suddenly during or after some acute illness (acute ataxia, encephalitis cerebelli), and those appearing gradually in a child who had appeared healthy (progressive cerebellar ataxia). Prognosis was believed bad in the last group.—*T. E. Newland.*

5361. **Bergstedt, Martin; Johansson, Sverker, & Muller, Ragner.** (Medical School, Umea, Sweden) **Hereditary spastic ataxia with central retinal degeneration and vestibular impairment.** *Neurology*, 1962, 12, 124-132.—"Spastic ataxia and central retinal degeneration, affecting four members of a family, is described in this paper. In the later generations, there was also severely impaired vestibular function. . . . The main features were spastic ataxia, central retinal degeneration and impairment of the vestibular function. . . . Stiffness and unsteadiness of gait were the first symptoms; later, clumsiness of the arms and dysarthria appeared. The motor disturbances were characterized by ataxia of a cerebellar type and spasticity. Visual deterioration, including impairment of the visual acuity and color vision, developed some years after onset and progressed rapidly. Gradually, degenerative changes appeared in the retinae in the form of atrophic patches and displacement of pigment. The lesions were confined to the macular region in

two cases but appeared also in the retinal periphery in one." Spontaneous or positional nystagmus was absent, and no mental deterioration was observed.—*R. Gunter.*

5362. Garelli, Maritha. Les enfants infirmes moteurs cérébraux: Problèmes psychologiques et perspectives de recherche. [Children with cerebral motor conditions: Psychological problems and research perspectives.] *Psychol. Franc.*, 1962, 7(2), 102-110.—Difficulties of measuring the intelligence of motor defective children using existing tests are analyzed; problems relating to perceptual difficulties and emotional problems are discussed. Some suggestions for a thorough longitudinal research program are offered.—*C. J. Adkins.*

5363. Ingvar, David H., & Nyman, G. Eberhard. (U. Lund, Sweden) Epilepsia arithmetica: A new psychologic trigger mechanism in a case of epilepsy. *Neurology*, 1962, 12(4), 282-287.—A case report of a 19-year-old woman whose performance of arithmetic problem solving acted as a trigger mechanism for minor epileptic seizures.—*R. Gunter.*

5364. Lasater, Gene M. Reading epilepsy. *Arch. Neurol., Chicago*, 1962, 6(6), 492-495.—4 cases are presented where major motor seizures occurred during, and only during a period of sustained reading. A review of these 4 cases, together with the 20 reported to date in the literature, indicate that (a) treatment with anticonvulsant medication is usually unnecessary since patients learn to avoid seizures by terminating their reading as soon as involuntary jaw movements begin to occur frequently, and (b) the exact conditions necessary for the precipitation of seizures during reading are "at this time unknown," although the reported incidence of 2 cases in 1 family suggests that a genetic factor may be involved.—*H. D. Arbitman.*

5365. Mani, K. S. The problem of epilepsy: Part III. *Pratibha*, 1959, 2(2), 33-44.—The treatment of epilepsy can be approached from the point of view of medical treatment, surgery, and as a social problem. The various drugs and surgical treatments are discussed. Suggestions are offered to deal with epilepsy as a social problem.—*U. Pareek.*

5366. Mavor, Huntington, & Libman, Israel. (McGill U., Montreal) Motor nerve conduction velocity measurement as a diagnostic tool. *Neurology*, 1962, 12(11), 733-744.—A description of the authors' experiences with a simple method for measuring conduction velocities of peripheral motor nerves, and a report of the following data on normal Ss: conduction velocity of 9 ulnar nerves in 7 Ss ranged from 56.0 to 62.7 meters per second; range of terminal conduction time on stimulation at the wrist was 2.3 to 3.4 meters per second.—*R. Gunter.*

5367. Mueller, A. D. Pain study of paraplegic patients. *Arch. Neurol., Chicago*, 1962, 7(4), 355-358.—Previous studies indicate that the more stable personality should react more favorably than the unstable in elimination of intractable pain by a chordotomy. The Rorschach was administered to patients in both the experimental and the control groups. Harrower-Erickson's "neurotic" Rorschach scale yielded a mean weighted score of 9.5 for the control group; the hypothesis was that patients with scores at or below 9.5 are good prospects for relief of pain by means of chordotomy, while those with scores above

9.5 are not. Predictions based on these figures were made, and predictions compared with postoperative results show a prediction percent of 85.7. "This is 35.7% better than . . . chance."—*H. D. Arbitman.*

5368. Scheibel, Arnold; Markham, Charles, & Koegler, Ronald. (U. California Medical Center, Los Angeles) Neural correlates of vestibuloocular reflex. *Neurology*, 1961, 11(12), 1055-1065.—"The high incidence of vestibuloocular abnormalities in schizophrenic children suggested the advisability of searching the brain stem and subcortex for regions modulating nystagmus responses." The work was done on 70 adult cats; 35 acute preparations produced useful information. The following findings were reported. "Consistent, apparently inhibitory responses were obtained from the [brain-stem reticular core] . . . and its rostral projections through the zona incerta and lateral hypothalamus. . . . they were due to nonreciprocally increased tension in all extraocular muscles. . . . Stimulation of the nucleus of Darkschewitsch . . . [produced] a true inhibition of all extraocular muscles with relaxation of the eyeball in the socket. . . . Stimulation of the entire central core of thalamic reticular nuclei . . . produced augmentation of nystagmus. A small dorsolateral island just medial to the lateral geniculate had similar effects. Stimulation of the entire head and body of the caudate increased the amplitude of nystagmus . . . surrounding white matter of internal capsule and corona was generally inhibitory. Physiologic and behavioral consequences of stimulation and/or ablation of these areas were considered. . . . Two separate groups of effects were noted [as effects of caudate stimulation]. . . . Both sets of phenomena were reminiscent of certain patterns shown by schizophrenic children."—*R. Gunter.*

5369. Stevens, Janice R. (U. Oregon) Endogenous conditioning to abnormal cerebral electrical transients in man. *Science*, 1962, 137(Whole No. 3534), 974-976.—10 Ss with epilepsy were trained to press a lever to avoid a mildly painful shock each time paroxysmal epileptiform activity occurred in their own electroencephalogram. All Ss learned to avoid the shock as long as they could hear the electroencephalogram and respond to the characteristic change in sound accompanying each spike-wave burst. When the audio component of the electroencephalogram was eliminated, only 1 S was able to respond to the purely subjective effect of his own paroxysmal activity.—*Journal abstract.*

5370. Talland, George A. (Harvard Medical School, Cambridge, Mass.) Cognitive function in Parkinson's disease. *J. nerv. ment. Dis.*, 1962, 135(3), 196-205.—A group of 45 Parkinsonian patients studied for the disease's effect on cognitive functions showed no definite signs of impairment by comparison with a control group.—*N. H. Pronko.*

5371. Vinoda, K. S. (All-India Inst. Mental Health) The Bender-Gestalt performance of epileptics. *Trans. All-India Inst. Ment. Hlth.*, 1961, 2, 62-69.—The aim of the study was to determine how far Bender-Gestalt reproductions: (a) differentiate epileptics from normals, (b) are related to EEG abnormalities, and (c) are related to the severity of illness. The Bender-Gestalt Test was administered to a group of 50 epileptics and a matched control group of 25 normals. Significant differences were obtained

between the 2 groups in speed of performance and accuracy of reproduction of Bender-Gestalt figures. The study demonstrated the usefulness of the test with epileptics.—J. DiGiovanni.

Brain Damage

5372. Arutiunova, A. S., & Blinkov, S. M. (Burdenko Inst. Neurosurgery, USSR Acad. Medical Sciences) **Latentnyi period dvigatel'noi reaktsii pri gemianopsii.** [Motor RT in cases of hemianopia.] *Zh. vyssh. nervn. Deiatel.*, 1962, 12(3), 432-436.—Ss were 3 patients with tumors in the posterior part of the right cerebral hemisphere, and consequent complete left side hemianopia. Reaction time (RT) to visual and auditory stimuli was recorded separately for the right and left hand. The RT for the left hand was longer than the RT for the right hand, from 4.2 to 6.5 msec. for the visual stimulus, and from 8.3 to 10.2 msec. for the auditory stimulus.—A. Cuk.

5373. Benton, Arthur L., & Fogel, Max, L. **Three-dimensional constructional praxis: A clinical test.** *Arch. Neurol., Chicago*, 1962, 7(4), 347-354.—Constructional praxis is a broad concept applied to activities which require a patient to assemble, join, or articulate parts to form a single unitary structure in 2 or 3 spatial dimensions. Ss were 100 patients with disease or injury involving the cerebral hemispheres, and 100 patients with a variety of somatic disturbances but no evidence or history of cerebral disease or injury. The test battery included 3 3-dimensional constructional praxis tasks; the Visual Retention Test; and the Comprehension, Arithmetic, Similarities, and Digit Span subtests of the WAIS. A "significant proportion" of patients with cerebral disease performed defectively on the 3-dimensional constructional praxis test, their constructions differing qualitatively as well as quantitatively from those of control patients.—H. D. Arbitman.

5374. Bruell, J. H., & Albee, G. W. (Western Reserve U.) **Higher intellectual functions in a patient with hemispherectomy for tumors.** *J. consult. Psychol.*, 1962, 26(1), 90-98.—Wechsler, Rorschach, Draw-a-Person, and behavioral observation are presented with drawings and protocol. "The case confirms earlier findings of a remarkable, but by no means complete, preservation of higher mental functions following cerebral hemispherectomy."—E. R. Otting.

5375. Dureau, F. (Hôpital Ste. Anne, Paris, France) **Troubles mentaux dans les lésions de l'hypophyse et de l'hypothalamus: I. Les syndromes endocriniens hypophysaires.** [Mental disturbances associated with lesions of the hypophysis and hypothalamus: I. Endocrine syndromes of the hypophysis.] *Encephale*, 1962, 51(3), 263-294.—The literature dealing with psychopathology resulting from pituitary dysfunction is reviewed. Acromegaly is often accompanied by personality changes (apathy, character changes which are more often depressive than euphoric) but psychosis is not more frequent. Gigantism is sometimes accompanied by apathy and disturbed social relations; impairment of intelligence is disputed. Cushing's syndrome is frequently associated with depression and suicidal tendencies, but clinical reactions can be quite varied. Hypopituitarism is associated with a particular mental condition marked by apathy, indifference, and depression. Acute

psychotic reactions are delusional and often linked with hypoglycemia." (138 ref.)—W. W. Meissner.

5376. Ettlinger, G., & Hurwitz, L. (National Hosp., London, England) **Dyslexia and its associated disturbances.** *Neurology*, 1962, 12(7), 477-480.—"A disorder of reading, it is agreed, may be the major consequence of involvement of the cerebral cortex from injury or disease. Such a defect has then sometimes been termed 'pure word blindness.' This designation suggests that letters can still be read whenever words cannot, and that no other disturbance is contributing to the defect of reading. Neither implication accords with the evidence." The authors describe 3 patients of which 2 have "visual symbolic dyslexia associated with other defects" while the 3rd patient suffers from "perceptual disorganization... without a genuine symbolic dyslexia." The authors chose these cases because "they illustrate that, with a disorder of reading, there may be severe and varying associated disturbances in the presence or absence of a genuine symbolic loss," and therefore conclude that "dyslexia may occur as a selective symbolic defect which may be recognized whatever the accompanying associated disturbances."—R. Gunter.

5377. Fogel, M. L. (U. Iowa) **The Gerstmann syndrome and the parietal symptom-complex.** *Psychol. Rec.*, 1962, 12, 85-99.—Assessment of 100 patients with cerebral damage was determined on the Gerstmann index and 15 other tests. With age and education held constant the intercorrelations among these performances were obtained. Results indicated that a single common factor can account for the observed intercorrelations pertinent to Gerstmann syndrome, per se, that this factor cannot account for all the observed intercorrelations of the total "parietal symptom-complex," as defined in this study, and "that the general factor found in the Gerstmann syndrome is not confined to these deficits, but extends to a number of other 'parietal' performances."—R. J. Seidel.

5378. Geschwind, Norman, & Kaplan, Edith. (Massachusetts Inst. Technology) **A human cerebral disconnection syndrome.** *Neurology*, 1962, 12(10), 675-685.—Discussion of the symptomatology of a patient who behaves as if there were 2 independently functioning half-brains, and comparison with some of Sperry's findings on animals with sections of the corpus callosum.—R. Gunter.

5379. Gochman, Stanley I., & Grubler, Eva R. (Rutgers) **A study of brain damage in a suburban population.** *Psychol. Rep.*, 1962, 10, 828.—Of 47 children referred to a mental hygiene clinic because of psychological difficulties, 67% were judged to be brain-damaged on the basis of interview behavior and a psychological test battery.—B. J. House.

5380. Grubler, Eva R., & Gochman, Stanley I. (Somerset County Guidance Cent.) **Statistical observations regarding the clinical diagnosis of brain damage.** *Psychol. Rep.*, 1962, 11(1), 221-222.—Results of neurological, EEG, and psychiatric examinations are reported for a sample of 25 children judged to be brain-damaged on the basis of a psychological test battery.—B. J. House.

5381. Kiev, Ari; Chapman, Loring F., Guthrie, Thomas, C., & Wolff, Harold G. (New York City Hosp.) **The highest integrative functions and diffuse cerebral atrophy.** *Neurology*, 1962, 12(6), 385-393.—A pneumoencephalographic study of 20

adult Ss with diffuse loss of tissue from cerebral hemispheres. "In 19 subjects with diffuse loss of cerebral tissue due to slowly progressive degenerative disease and in one with loss due to birth injury, impairment of the highest integrative functions was assessed and related to the extent of cerebral tissue loss. . . . In these subjects, impairment was found in all categories of the highest integrative functions previously found to be impaired in subjects with focal loss of tissue from the cerebral hemispheres. . . . (learning, memory, categorization, and so on). . . . It is concluded that the degree of impairment of the highest integrative functions is directly related to the total number of inadequately functioning cortical neurons."—*R. Gunter.*

5382. Rowley, V. N. (State U. Iowa) **Analysis of the WISC performance of brain damaged and emotionally disturbed children.** *J. consult. Psychol.*, 1961, 25(6), 553.—With matched emotionally disturbed and brain damaged children, there was no significant difference between verbal or performance IQs or subtest scores, nor were differences between scores significant.—*E. R. Oetting.*

5383. Schein, J. D. (Gallaudet Coll.) **Cross-validation of the Continuous Performance Test for brain damage.** *J. consult. Psychol.*, 1962, 26(2), 115-118.—Patients with cortical brain damage and psychotics score lower than neurotic, neuropsychiatric, or hospitalized patients. Those with subcortical damage do not differ. Intelligence is correlated .26, age is not related, and medication has no effect. Diffuse EEG is lower than focal, borderline, or normal.—*E. R. Oetting.*

5384. Serafetinides, Eustace A., & Falconer, Murray A. (Guy's-Maudsley Neurosurgical Unit, London, England) **Some observations on memory impairment after temporal lobectomy for epilepsy.** *J. Neurol. Neurosurg. Psychiat.*, 1962, 25(3), 251-255.—Clinical assessment of 34 patients after a non-dominant temporal lobectomy revealed recent memory impairment in 7 patients 2-9 yrs. post-operative; the defect was neither disabling nor substantiated on psychometric tests. 6 of these 7 patients also had a post-operative EEC spike focus in the nonoperated temporal lobe, and a higher incidence of persistent epilepsy. "It is argued that the presence of spike-discharging focus at the opposite sphenoidal electrode indicates a dysfunction of that temporal lobe, if not a lesion. Therefore such cases can be considered as showing bilateral temporal lobe disturbances which are responsible for the memory defect." (2 tables, 16 ref.)—*M. L. Simmel.*

5385. Spivack, G. (Devereux Found. Inst. Research & Training Devon, Penn.) **A note on generality of discrimination deficiency in life-long brain damage.** *Amer. J. ment. Defic.*, 1962, 67(3), 473-474.—Data on the relationship between performances of brain damaged children on a visual and auditory discrimination task are reported. Results are presented which support the notion that there is a general discriminatory deficiency in life-long brain damaged individuals.—*V. S. Sexton.*

5386. Teuber, H.-L., & Rudel, R. G. (Massachusetts Inst. Technology) **Effects of brain injury in children and adults.** In G. Nielson (Ed.), *Proceedings of the XIV International Congress of Applied Psychology*. Vol. 4. *Clinical psychology* (see 37:

4119). Pp. 113-139.—4 groups of Ss (adults with gunshot wounds, persons with certain brain disease, children, and monkeys) were examined. Recent results are summarized. (39 ref.)—*B. T. Jensen.*

5387. Tikhomirov, O. K. (Dept Psychology, Moscow State U., USSR) **Issledovanie optimal'nykh sposobov proverki gipotez v norme i patologii. Soobshchenie III. Narushenie osiazatel'nogo uznaniia slozhnykh izobrazhenii.** [Study of optimal methods for checking hypotheses in normal and abnormal cases. Communication III. Disturbance of tactile recognition of complex images.] *Dokl. Akad. Pedag. Nauk RSFSR*, 1961, No. 6, 65-68.—1 female S suffering from a local injury in the left frontal lobe was asked to recognize by touch 2 checkers representing the letters N and P on a checkerboard of 25 cells. The probability of recognition was $\frac{1}{2}$. 2 experiments were carried out and the results show that a great amount of "superfluous information" was necessary for the search and was not improved even with training.—*A. Cuk.*

5388. Warrington, Elizabeth K. (National Hosp., Queen's Square, London, England) **The completion of visual forms across hemianopic field defects.** *J. Neurol. Neurosurg. Psychiat.*, 1962, 25(3), 208-215.—"Single geometrical forms were presented by means of a tachistoscope to a series of patients with homonymous hemianopia in such a way that only half of each form fell within the intact half field of vision. The results showed that some patients reported seeing only those sections of the forms that were objectively visible, and in this way resembled normal control subjects, but others reported seeing complete forms although it was not possible for them actually to have done so. This tendency to 'complete' forms across homonymous hemianopic field defects was found to be strongly associated with the presence of a parietal lobe lesion of either hemisphere, as well as with the symptom of unawareness of field defect. Some possible explanations of the phenomenon of 'completion' are discussed, and attention is drawn to its localizing value for parietal lobe disease." Appendix with individual case summaries.—*M. L. Simmel.*

5389. Watkins, E. S., & Oppenheimer, D. R. (Radcliffe Infirmary, Oxford, England) **Mental disturbances after thalamolysis.** *J. Neurol. Neurosurg. Psychiat.*, 1962, 25(3), 243-250.—"This report concerns two patients, in both of whom the placing of a lesion in the left thalamus, for the purpose of controlling Parkinsonian tremor and rigidity, resulted in a severe and protracted psychic disturbance, characterized by confusion, amnesia, confabulation, and euphoria. One of these patients died, from other causes, nine months after operation. A detailed anatomical and histological examination was carried out on the brain, primarily in order to define the nature and extent of the lesion."—*M. L. Simmel.*

5390. Williams, H. L., Giesecking, C. F., & Lubin, A. (Walter Reed Army Inst. Research) **Interaction of brain injury with peripheral vision and set.** *J. consult. Psychol.*, 1961, 25(6), 543-548.—On the block design rotation test, brain injured show less decrease in rotation when instructed to attend to tilt. Restriction in peripheral vision decreases rotation for brain injured and increases for both normal and dull normal controls. ". . . relevant peripheral cues cause perceptual distortion."—*E. R. Oetting.*

Cerebral Palsy

5391. Allen, Robert M., & Jefferson, Thomas W. (U. Miami, Fla.) **Psychological evaluation of the cerebral palsied person: Intellectual, personality, and vocational applications.** Springfield, Ill.: Charles C Thomas, 1962. xiii, 86 p. \$5.00.—A detailed evaluation of testing techniques for the cerebral palsied individual based on the assumption that he must be evaluated in terms of the nonhandicapped. Tests on intellectual, personality, and vocational assessment are reviewed. Intelligence tests are considered from the standpoint of whether they are directly administrable or whether they depend upon an informant. The need for understanding sensorimotor limitations is stressed. A brief illustrative account of research findings with the various personality tests is given. The role of self-concept in vocational choice and problems with vocation are also noted. (126 ref.) —B. S. Aaronson.

5392. Ferrari, Joan Ann. **Intensive stereognostic training: Effect on spastic cerebral palsied adults.** *Amer. J. occup. Ther.*, 1962, 16(3), 141-142.—The spastic cerebral palsied often suffers loss of the ability to perceive form tactually without the aid of vision. In this study, 5 males and 3 females (ages 16-31) compared 2 dissimilar forms, using first the uninvolved hand and later the involved hand (in 19 training sessions of 20 minutes duration during a 3-5 week period). It was found that large objects worked better than smaller ones in bringing about some degree of improvement in stereognosis.—M. A. Seidenfeld.

5393. Mednick, S. A., & Wild, C. (U. Michigan) **Stimulus generalization in brain damaged children.** *J. consult. Psychol.*, 1961, 25(6), 525-527.—Cerebral palsied children, capable of a visual motor reaction time task, showed less stimulus generalization to inappropriate lights than normals.—E. R. Oetting.

MENTAL RETARDATION

5394. Barrett, Beatrice H., & Lindsley, O. R. (Harvard Medical School) **Deficits in acquisition of operant discrimination and differentiation shown by institutionalized retarded children.** *Amer. J. ment. Defic.*, 1962, 67(3), 424-436.—Some findings from the first year of a continuing laboratory investigation of the operant behavior of a representative group of institutionalized children are described. The research focused on the location and automatic measurement of clinically and educationally relevant behavior deficits in a controlled experimental environment. The method of simultaneous and independent measurement of response differentiation and stimulus discrimination was sensitive to a variety of reliable individual response patterns, including a wide range of deficits. Most of the latter were revealed only through repeated, continuously recorded, controlled observations over many experimental sessions. Individual variability, both between sessions and within sessions, is extreme enough in some cases to demand prolonged study. The authors feel that the nature and amount of individual variability emerges as an important and basic datum rather than as statistical "noise" or therapeutic failure.—V. S. Sexton.

5395. Berkson, G., & Cantor, G. N. (Emory U.) **A note on method in comparisons of learning in normals and the mentally retarded.** *Amer. J. ment.*

Defic., 1962, 67(3), 475-477.—Some of the empirical and logical issues involved in reaching conclusions about how normals and retardates differ with respect to performance curve parameters are analyzed.—V. S. Sexton.

5396. Charles, D. C., & McGrath, Kay. (Iowa State U.) **The relationship of peer and staff ratings to release from institutionalization.** *Amer. J. ment. Defic.*, 1962, 67(3), 414-417.—164 children and adolescents who had earlier been the Ss of a study of sociometric and staff rating relationship in an institution for the mentally deficient were followed up to determine whether social ratings are useful predictors of release and of adjustment after release. It was found that (a) there were significant differences between retained and released groups, (b) the type of rating (staff or peer) was significant, and (c) staff rankings were higher for released than for retained groups and thus were better predictors of release than peer ratings. Peer ratings were not found useful enough in prediction of release or success of adjustment to warrant their use for that purpose.—V. S. Sexton.

5397. Cruz, Caridad E., & Barnett, Nadine. (Indiana U. School Medicine, Indianapolis) **Mental retardation in pseudo-pseudohypoparathyroidism: Case reports of siblings and review of literature.** *Amer. J. ment. Defic.*, 1962, 67(3), 381-395.—A description is presented of 10 generations of the family of 2 sisters with pseudo-pseudohypoparathyroidism. Strong incidence of mental retardation, of mental retardation combined with physical defects characteristic of pseudo-pseudohypoparathyroidism, of psychiatric difficulties, and of other neurological or developmental defects, was found. Most of the families of 49 other patients reported in the literature are positive for defects, whether physical or mental, which are similar to the patients', or are incomplete variations of the pseudo-pseudohypoparathyroidism syndrome. A genetic origin of the syndrome is suggested from the present study and from other reports in the literature.—V. S. Sexton.

5398. Curzon, Winifred M. (London, England) **Training of mentally handicapped children in day training centers.** *Develpm. Med. child Neurol.*, 1962, 4(5), 537-541.—The methods employed are described briefly, the need for better trained personnel is indicated, the importance of coordination of efforts between the teachers and those in industrial centers is stressed, and special problems are discussed.—T. E. Newland.

5399. De La Cruz, F. F., & La Veck, G. D. (Rainier School, Buckley, Wash.) **Tuberous sclerosis: A review and report of eight cases.** *Amer. J. ment. Defic.*, 1962, 67(3), 369-380.—A review is presented of tuberous sclerosis, with its multiple-system involvement, which is characterized in its classic form by adenoma sebaceum, calcific cerebral depositions, epilepsy, and mental retardation. It is emphasized that, in view of its genetic implications and for more realistic planning of the patient's future, an early and accurate diagnosis is mandatory. Normal intellectual endowment and asymptomatic cases are mentioned. 8 cases are presented. It is felt that this condition is not as rare as previous reports maintained.—V. S. Sexton.

5400. Dentler, R. A., & Mackler B. (U. Kansas) **The Porteus Maze Test as a predictor of functioning abilities of retarded children.** *J. consult. Psychol.*, 1962, 26(1), 50-55.—The Porteus Maze predicts (a) ability of the child to identify landmarks and paths on a map; (b) language ability; and (c) social maturity, as measured by activities based on the Vineland Social Maturity Scale. Clinical use of discrepancies is discussed.—E. R. Oetting.

5401. Garell, Dale. (U. Colorado Medical Cent.) **Metabolic defects associated with mental retardation.** *Amer. J. Dis. Children*, 1962, 104(4), 401-418.—A review of medical, genetic, and biochemical knowledge of inborn errors of metabolism that may result in mental retardation. (114 ref.)—A. B. Warren.

5402. Gibbs, E. L., & Gibbs, F. A. (U. Illinois) **Extreme spindles: Correlation of electroencephalographic sleep pattern with mental retardation.** *Science*, 1962, 138 (Whole No. 3545), 1106-1107.—An electroencephalographic abnormality is described which is relatively common among children below 12 years of age who are mentally retarded. This pattern consists of exaggerated sleep spindles, which are of higher voltage and more continuously present than in normal persons, and it correlates specifically with mental retardation and not with epilepsy or cerebral palsy.—*Journal abstract.*

5403. Girardeau, F. L. (Parsons State Hosp., Kan.) **The effect of secondary reinforcement on the operant behavior of mental defectives.** *Amer. J. ment. Defic.*, 1962, 67(3), 441-449.—This study aimed to demonstrate secondary reinforcement and to study the effects of intermittent and continuous presentation of both primary and secondary reinforcing stimuli on the establishment of secondary reinforcement. Operant levels were obtained for 4 groups of male defectives (IQ range 12-48) and then different secondary reinforcement training treatments were administered. No evidence for the establishment of secondary reinforcement was obtained. No significant relationships were found between operant level rate and MA, CA, IQ, diagnostic category, and presence or absence of medication.—V. S. Sexton.

5404. Goda, Sidney, & Griffith, Belver C. (American Psychological Ass.) **Spoken language of adolescent retardates and its relation to intelligence, age, and anxiety.** *Child Developm.*, 1962, 33(3), 489-498.—"The present study offered descriptive data on the spoken language of high-grade adolescent retardates and examined the interrelations of sentence usage measures, developmental measures, sex, race, and anxiety. Correlations were obtained among all measures, and the results were factor analyzed. Of the 3 rotated factors, one was closely identified with MA and IQ; another with tense variety, CA, sex, and manifest anxiety; and a third with the sentence usage measures, particularly sentence complexity."—W. J. Meyer.

5405. Goda, S., & Rigrodsky, S. (Burke Rehabilitation Found., White Plains, N. Y.) **Auditory Training procedures of certain mentally retarded children.** *Train. Sch. Bull.*, 1962, 59(3), 81-88.—The erratic hearing behavior which may be found in mentally retarded children is described. Several investigators have observed similar reactions among the brain-injured. Hearing responses are affected by

environment and materials to which they are responding. With care for these 2 factors hearing responses can be improved. While the child usually uses both vision and hearing in responding to verbal symbols, there are periods where he uses his hearing exclusively. Careful attention should be paid to the maximum stage the child can reach when relying on his hearing exclusively. Attention should be directed to the length of the spoken sentence, the rate of speech, the kinds of sentences, and syntactical arrangements of words.—V. S. Sexton.

5406. Green, Calvin, & Zigler, Edward. (Yale U.) **Social deprivation and the performance of retarded and normal children on a satiation type task.** *Child Developm.*, 1962, 33(3), 499-508.—Groups of normal, retarded-noninstitutionalized, and retarded-institutionalized children played a simple monotonous game until satiated. $\frac{1}{2}$ the Ss in each group played the 2 highly similar parts of the game in a support to nonsupport reinforcement sequence. The sequence was reversed for the remaining $\frac{1}{2}$ of the Ss. Performance of the normal and retarded-noninstitutionalized Ss were quite similar but differed from that of the retarded-institutionalized Ss. A motivational hypothesis, emphasizing social deprivation, was used to explain the results.—W. J. Meyer.

5407. Guskin, S. (George Peabody Coll. Teachers) **The influence of labelling upon the perception of subnormality in mentally defective children.** *Amer. J. ment. Defic.*, 1962, 67(3), 402-406.—42 college students saw films of a girl and boy, each about 10 years old, with IQs of about 50. Each student rated each child twice, first without sound and then with verbal cues, on a series of 5 alternative adjective choices. $\frac{1}{2}$ of the student-judges were told that both children were mentally retarded, and the other $\frac{1}{2}$ were controls and were told only that these were school children. 5 of the adjective choices were combined into a single index of "perceived subnormality." It was discovered that whereas the label had no discernible effect at all upon the judgment of one child, the other child was reliably judged as more subnormal when he had been labelled retarded. On the basis of certain apparent characteristics of the children it was suggested that perhaps labelling a child as mentally subnormal can influence his perceived subnormality only when 2 conditions are met: (a) the child himself presents relevant cues to his subnormality, and (b) these cues are ambiguous in their implications.—V. S. Sexton.

5408. Hetherington, E. M., & Banta, Thomas J. (U. Wisconsin) **Incidental and intentional learning in normal and mentally retarded children.** *J. comp. physiol. Psychol.*, 1962, 55(3), 402-404.—Organic retardates, familial retardates, and normal children of the same mental age received several learning and retention tasks. Organic retardates learned less incidentally than the other groups. No differences were found on a recall test 48 hr. later, but they reappeared on a recognition test. No other differences were found, and no significant correlations were found between incidental and intentional learning or retention.—W. A. Wilson, Jr.

5409. House, Betty, & Zeaman, David. (Mansfield State Training School) **Reversal and non-reversal shifts in discrimination learning in re-**

retardates. *J. exp. Psychol.*, 1962, 63(5), 444-451.—“Mentally defective children were trained on a discrimination problem with either color relevant and form irrelevant, or the opposite. One group had the irrelevant cue varied randomly during training; the other had a constant irrelevant cue. Following training, Ss learned either a simple reversal, a new problem with stimuli from the same relevant dimension (intradimensional shift), or a new problem with stimuli from the irrelevant training dimension (extradimensional shift). Extradimensional shift was significantly more difficult than either reversal of intradimensional shift. Reversal and intradimensional shift performance did not differ. The results were interpreted as consistent with observing response theory, but suggestive of changes for a verbal mediation theory.” (18 ref.)—*J. Arbit.*

5410. Hollis, J. H. (Parsons State Hosp., Kan.) **Solution of bent-wire problems by severely retarded children.** *Amer. J. ment. Dec.*, 1962, 67(3), 463-472.—13 severely retarded institutionalized children were tested on a series of 40 bent-wire detour problems for a total of 480 trials. The retardates as a group performed at a level below that of the normal 2-year-old child. The performance for the group of retardates approximated that of monkeys—that is, a relatively slow and gradual approach to the solution of the bent-wire problems. Pattern-related factors that seem to contribute to the relative difficulty of patterns were observed to be the same for all species and ages. Subjective observations or accessory behavioral changes in the retardates were discussed.—*V. S. Sexton.*

5411. Jones, R. Wayne, & Ellis, Norman R. (Louisiana State U.) **Inhibitory potential in rotary pursuit acquisition by normal and defective subjects.** *J. exp. Psychol.*, 1962, 63(6), 534-537.—“The present experiment compared normals and defectives under conditions of massed and distributed practice on the rotary pursuit task. Over-all, normal Ss showed a larger build-up of inhibition than the defectives although this effect could not be demonstrated independently of performance level and distribution of practice. There were sex differences in both pretest and and posttest performance. There were some characteristics of posttest performance which could be ascribed to the development of a ‘permanent’ inhibition effect.”—*J. Arbit.*

5412. Kern, W. H., & Pfaeffle, H. (U. Wisconsin) **A comparison of social adjustment of mentally retarded children in various educational settings.** *Amer. J. ment. Defic.*, 1962, 67(3), 407-413.—The social adjustment of mentally retarded children in 3 educational settings was compared: special classes, special school, and regular classes. 93 Ss, 31 in each setting, were studied by means of the Social Adjustment section of the California Test of Personality, Elementary Form. 1 of 2 examiners read the test questions to each S individually and scored the test objectively by key. The special school children showed the best over-all social adjustment. The regular class retardates showed the poorest over-all adjustment. The special class children held an intermediate position on social adjustment. There was no statistically significant difference between the mean scores of the special class and special school pupils on any of the 6 sub-tests. The scores of the

special school children were, however, slightly higher. The greatest differences were found in school relations in which the special class and special school groups showed significantly superior adjustment over the regular school retardates.—*V. S. Sexton.*

5413. Linde, T. (207 E. Buffalo St., Milwaukee, Wis.) **Techniques for establishing motivation through operant conditioning.** *Amer. J. ment. Defic.*, 1962, 67(3), 437-440.—Motivating the retarded in workshops requires teaching the notion that a specific behavior, work, will be rewarded. Several methods for establishing motivation through operant conditioning are discussed.—*V. S. Sexton.*

5414. Macmillan, M. B. (Mental Hygiene Authority, Victoria, Australia) **Adjustment and process: A neglected feature of follow-up studies of retarded people.** *Amer. J. ment. Defic.*, 1962, 67(3), 418-423.—Consistency in parental trial-leave contacts seemed to have a highly significant association with the present status of the group of mentally retarded boys in this study. This may have its determinants in parental attitudes toward the retarded child, in general, and particularly at the time of placement in an institution. If this is so, later adjustment should be viewed as the end point of a process rather than as the result of relatively fixed specific characteristics of either parent or child.—*V. S. Sexton.*

5415. O'Connor, N., & Hermelin, Beate. (Maudsley Hosp., U. London, England) **Recall in normals and subnormals of like mental age.** *J. abnorm. soc. Psychol.*, 1963, 66(1), 81-84.—Normal children and young adult imbeciles were matched for mental age and were given sets of 6 pairs of words to learn by association. The words were recorded on tape, and presented to subgroups at a sound intensity of 90 db. or 55 db. Each subgroup was further subdivided— $\frac{1}{2}$ the Ss being given 10 and $\frac{1}{2}$ given 20 repetitions. 1 minute, 2 days, and 1 month later they heard the stimulus word of each pair and were asked to give the appropriate response word. It was shown that there was no difference in learning or memory scores between normals and imbeciles. Frequency of presentation affected immediate recall scores of both groups, with intensity level contributing to a lesser degree. Memory over longer time intervals was determined by the amount initially learned, rather than by the conditions under which such learning had occurred.—*Journal abstract.*

5416. Olshansky, S., & Sternfeld, L. (Children's Developmental Clinic, Cambridge, Mass.) **Attitudes of some pediatricians toward the institutionalization of mentally retarded children.** *Train. Sch. Bull.*, 1962, 59(3), 67-73.—Little evidence was found to support the views that pediatricians favor early institutionalization. Few pediatricians considered the decision to institutionalize as belonging to the parents. The majority of the pediatricians interviewed for this study saw few children in the course of their daily practices whom they identified as mentally retarded.—*V. S. Sexton.*

5417. Reger, Roger, & Dawson, Antoinette. (Wayne County Training School, Mich.) **The hyperactive educable mentally retarded child.** *Amer. J. occup. Ther.*, 1962, 16(4), 182-184.—The goal of the occupational therapist in treating the hyperactive child is to reduce his hyperactivity by providing him

with therapeutically acceptable uses for his energies so that he does not come into conflict with his environment. He is taught self-control and encouraged to engage in activities that are generally more controlled by using a system of rewards and punishments stemming from the interactional process and his own better management of his self-needs.—*M. A. Seidenfeld.*

5418. Shimizu, M. (Kyoto U.) [An experimental study of the developmental process of conceptualization.] *Jap. J. Psychol.*, 1962, 33(2), 71-83.—An investigation of Vinacke's hypothesis, which assumes a parallel relationship between intelligence and conceptual ability found that there was an increase in responses of the conceptual type as a function of increasing MA in mentally retarded Ss. However, there were no differences between normal Ss of a previous study and the retarded Ss of the present study with regard to this finding—both showed an increase in conceptual responses with increase in MA. However, differences in qualitative characteristics were noted between these groups, with the retarded Ss manifesting a more primitive mental apparatus.—*A. Barclay.*

5419. Silverstein, A. B., & Mohan, P. J. (Pacific State Hosp., Pomona, Calif.) Performance of mentally retarded adults on the Color Form Sorting Test. *Amer. J. ment. Defic.*, 1962, 67(3), 458-462.—50 mentally retarded adults took the Color Form Sorting Test from the Goldstein-Scheerer battery which was scored by a system designed for this study. Patterning, verbalization, shifting, and color vs. form were found not to be significantly related to age, sex, intelligence, diagnosis, or length of hospitalization. These findings were contrasted and compared with those of other studies. Retardates appear to differ from normals in several aspects of performance, but differences among retardates have not been clearly demonstrated.—*V. S. Sexton.*

5420. Silverstein, A. B., Shotwell, Anna M., & Fisher, G. M. (Pacific State Hosp., Pomona, Calif.) Cultural factors in the intellectual functioning of the mentally retarded. *Amer. J. ment. Defic.*, 1962, 67(3), 396-401.—The performance of 53 Mexican mental retardates on the WAIS was compared with that of 251 controls. The mean Performance IQ of the Mexicans was significantly higher than that of the controls. The Mexicans and the controls did not differ significantly on the Verbal or Full Scale IQs. The discrepancy between the mean Verbal and Performance IQs was completely negligible for the controls, whereas for the Mexican patients, this discrepancy was highly significant in favor of the Performance IQ. On the Verbal Scale, the controls obtained significantly higher mean scores than the Mexicans on Information and Vocabulary. On the performance subtests, the Mexican patients obtained significantly higher mean scores than the controls on Digit Symbol, Block Design, and Object Assembly. The Mexican patients and the controls did not differ significantly on Cohen's Verbal Comprehension and Memory factors, but the mean score of the Mexican patients on the Perceptual Organization factor was significantly higher than that of the controls. The relatively small differences between the 2 groups suggest that clinical psychologists should be careful in making allowances for cultural factors in the intel-

lectual functioning of the mentally retarded.—*V. S. Sexton.*

5421. Throne, Frances M., Schulman, J. L., & Kaspar, J. C. Reliability and stability of the Wechsler Intelligence Scale for Children for a group of mentally retarded boys. *Amer. J. ment. Defic.*, 1962, 67(3), 455-457.—3-4 mo. after the original test the same examiner retested on the WISC 39 mentally retarded boys, ages 11-0 to 14-11, with original WISC IQs in the retarded range. The correlation coefficients indicate that the Verbal, Performance, and Full Scale IQ scores are reliable. The reliability of the Comprehension, Arithmetic, Picture Completion, Block Design and Coding subtests was adequate; but the reliability of the remaining subtests was somewhat less than adequate. The means of the Verbal, Performance, and Full Scale IQ scores showed no significant gains (or losses) between the 1st and 2nd administrations—a further indication of the stability of the WISC for this population.—*V. S. Sexton.*

5422. Verghese, A., & Murti Rao, D. L. N. (All-India Inst. Mental Health) Mongolism: A review of some aspects. *Trans. All-India Inst. Ment. Hlth.*, 1961, 2, 20-36.—The purpose is to describe findings in 18 cases of mongoloids, who attended the outpatient department of the Mental Hospital, Bangalore, from January 1957 to January 1961. The average maternal age at the time of the birth of the mongoloid child was 34 in contrast to 24 in the control group. Average age difference between the mongoloid and the immediately elder child was 7 years; it was 4 years in the control group. Main biochemical abnormalities noted were: decrease in serum calcium with slight increase in serum phosphorus; decrease in the serum albumin fraction and an increase in all fractions of globulin, more in the gamma globulin fraction; and decrease in the urinary excretion of 17-ketosteroids.—*J. DiGiovanni.*

5423. Wallin, J. E. W. (Lyndalia, Del.) New frontiers in the social perspective of the mentally retarded. *Train. Sch. Bull.*, 1962, 59(3), 89-104.—Society's changing attitudes toward the mentally deficient are described together with a review of changing practices and procedures in the treatment and care of them.—*V. S. Sexton.*

5424. Wolfensberger, W. (Maudsley Hosp., London, England) Age variations in Vineland SQ scores for the four levels of adaptive behavior of the 1959 AAMD behavioral classification. *Amer. J. ment. Defic.*, 1962, 67(3), 452-454.—A table was devised presenting Vineland SQ scores for all age groups and corresponding to the 4 levels of adaptive behavior as defined by the American Association on Mental Deficiency in 1959. The SQ scores for the various levels varied by as many as 61 points between age groups. The necessity for converting scores into levels or into standard scores for comparison purposes is indicated.—*V. S. Sexton.*

5425. Wolfensberger, W. (Maudsley Hosp., London, England) The correlation between PPVT and achievement scores among retardates: A further study. *Amer. J. ment. Defic.*, 1962, 67(3), 450-451.—Contrary to research conducted by D. L. Kimbrell (1960), the Peabody Picture Vocabulary Test

was found to correlate significantly with achievement in a retarded group. Possible reasons for Kimbrell's findings are adduced.—*V. S. Sexton.*

5426. Zeaman, David, & House, Betty J. (U. Connecticut) **Mongoloid MA is proportional to logCA.** *Child Developm.*, 1962, 33(3), 481-488.—Changes in MA and IQ of a group of institutionalized mongoloid retardates were related to CA by cross-sectional and semilongitudinal methods. IQ declined a few points a year when the children were young and gradually stabilized as they became adults. MA was proportional to logCA. It was suggested that the ratio MA/logCA might be a useful measure of relative intelligence of mongoloids because of its constancy.—*Author abstract.*

BEHAVIOR PROBLEMS

5427. Grimm, Elaine. (Dept. Obstet., New York Hosp.) **Psychological investigation of habitual abortion.** *Psychosom. Med.*, 1962, 24(4), 369-378.—"A set of personality characteristics, as reflected on the Wechsler-Bellevue, Rorschach, and TAT, was found to discriminate significantly between (1) 70 habitual aborters and 35 non-aborters, (2) habitual aborters with and without a known organic basis, and (3) habitual aborters before and after psychotherapy." They were more emotionally labile and socially conforming, holding in their angry reactions to frustrations. (26 ref.)—*W. G. Shipman.*

5428. Nylander, Ingvar. "Thinner" addiction in children and adolescents. *Acta paedopsychiat.*, Basel, 1962, 29(9), 273-283.—The use of paint thinner among children has been epidemic in Stockholm for about 10 years. The psychopathological phenomena are in some cases similar to those of alcohol abuse. It is not certain whether this abuse leads to permanent somatic damage. There is evidence that the liver and haemopoietic system can be damaged.—*G. Rubin-Rabson.*

Alcoholism

5429. de Saugy, Daisy. (Policlinique Universitaire de Psychiatrie, Genève, Switzerland) **L'alcoolique et sa femme: Étude psychosociale et statistique sur les conditions de leur développement individuel et de leur vie en commune.** [The alcoholic and his wife: A psychosocial and statistical study of the conditions of their individual development and of their life together.] *Hyg. ment.*, 1962, 51(3), 81-128.—The wife of the male alcoholic frequently manifests important neurotic traits. There is no single type, but the traits most commonly mentioned in the literature are dependence, frigidity, sado-masochistic tendencies, the need to find fault, and a hesitant and fluctuating attitude. The cure of the husband's alcoholism often produces a disruption in the wife which takes the form of regressive or anxiety states, even psychosis. Statistical evaluations are presented of various factors in the alcoholic's family background and marital adjustment.—*W. W. Meissner.*

5430. Shaffer, John W., Hanlon, Thomas E., Wolf, Sidney; Foxwell, Nancy H., & Kurland, Albert A. (Spring Grove State Hosp., Baltimore, Md.) **Nialamide in the treatment of alcoholism.** *J. nerv. ment. Dis.*, 1962, 135(3), 222-232.—"In a

double-blind study of the effectiveness of nialamide in the treatment of hospitalized convalescing alcoholics, patients were randomly assigned to two groups, one of which received 200 mg. of nialamide daily and the other, an inert placebo. Patients were evaluated both before and after treatment on over 50 criterion measures including clinical ratings, blood and liver function studies, electroencephalograms and objective psychological tests. With regard to means, differences between the two groups following treatment were not significant. There was some evidence, however, that nialamide may produce individual difference in response along one or more dimensions."—*N. H. Pronko.*

5431. Smart, Reginald G. (Alcoholism & Drug Addiction Research Foundation, Toronto) **Alcoholism, birth order, and family size.** *J. abnorm. soc. Psychol.*, 1963, 66(1), 17-23.—On the basis of Schachter's findings relating affiliation during anxiety to birth order it was predicted that later borns and persons from large families should be overrepresented among alcoholics and that the number of alcoholics within each family size should increase with increasing birth order. First borns were expected to have significantly more therapeutic contacts than later borns. It was pointed out that Schachter's analyses, based on Bakan's data, lacked, among other things, a correction for family size. When this correction was employed with birth order and family size data from a sample of 242 treated alcoholics, the only hypothesis supported was that relating to an overrepresentation of persons from large families.—*Journal abstract.*

Sex Deviation

5432. Bychowski, Gustav. **Das Ich und das Objekt des Homosexuellen.** [The ego and the object of the homosexual.] *Psyche, Stuttgart*, 1961, 15(7), 465-474.—Homosexual activity may be regarded as a form of sudden drive discharge based on a release of internal images. The homosexual ego is usually capable of rapidly changing role positions in its discharge of fixated early drive formations. There is 1 constant feature of all possible homosexual combinations and constellations: projection of the self-image onto the homosexual object. This is a German translation of the original English version (see *Int. J. Psycho-Anal.*, 1961, 42, 255-259).—*E. W. Eng.*

5433. Cabeen, Charles W., & Coleman, James C. (Metropolitan State Hosp., Norwalk, Calif.) **The selection of sex-offender patients for group psychotherapy.** *Int. J. group Psychother.*, 1962, 12(3), 326-334.—An attempt was made to evaluate 5 factors commonly assumed to be of importance in the selection of sex-offender patients for group psychotherapy: age, intelligence, diagnosis, type of sex offense, and number of arrests. Only "diagnosis" showed a significant relationship to the outcome of therapy; patients diagnosed as neurotics tended to show improvement more often than those diagnosed as psychopathic personality.—*L. N. Solomon.*

5434. Caprio, Frank S. **Female homosexuality: A psychodynamic study of Lesbianism.** New York: Grove, 1962. x, 334 p. \$.75 (paper).—A paperback edition of a book originally published in 1954.—*C. T. Morgan.*

5435. Fitch, J. H. (H. M. Prison, Bristol, England) **Men convicted of sexual offences against children: A descriptive follow-up study.** *Brit. J. Criminol.*, 1962, 3(1), 18-37.—139 men were used in this investigation. 77 of these men were convicted of heterosexual offenses, and 62 were convicted of homosexual offenses. The aim of the investigation was to find what objective differences existed between these 2 groups, and what differences existed between those subsequently convicted of further sexual offenses and those not so reconvicted. It was found that: (a) there was no significant difference between the homosexual and heterosexual offenders in respect to age at time of offense, age at first conviction for sexual offense, and intelligence; (b) there were major differences in respect to employment level, marital status, sentence decreed, and pattern of previous and subsequent convictions; (c) sexual recidivists were predominantly homosexual offenders, single men, and had a history of previous convictions for sexual offenses. Psychologically, sexual offenders were tentatively classified as "Immature," "Frustrated," "Sociopathic," "Pathological," and "Miscellaneous."—*M. P. Argyropoulos.*

5436. Hooker, E. (U. California, Los Angeles) **The homosexual community.** In G. Nielson, *Proceedings of the XIV International Congress of Applied Psychology. Vol. 2. Personality research* (see 37: 4117). Pp. 40-59.—Features of a homosexual community in a large urban setting are described.—*B. T. Jensen.*

5437. Karon, B. P., & Rosberg, J. (Princeton U.) **The homosexual urges in schizophrenia.** *Psychoanal. psychoanal. Rev.*, 1958, 45(4), 50-56.—In our experience, edipal interpretations of the homosexual urges produce no noticeable change in schizophrenic patients. The deepest root of the homosexual urges in such patients is the wish for a resolution of the original mother-child relationship through the fantasy of becoming one's own mother, through the fantasy that one's sexual identity accounts for the mother's rejection, through the fantasy of finding a same-sexed substitute mother, and in male patients, the penis-breast equation and the fantasy of draining which may lead to a castration wish underlying castration fear. When these factors are not taken into account, the homosexual urges block the progress of the therapy; when these factors are dealt with, the homosexual urges are no more of a therapeutic problem than any of the other symptoms of schizophrenia.—*Author abstract.*

5438. Rhinehart, J. W. **Genesis of overt incest.** *Comprehen. Psychiat.*, 1961, 2(6), 338-349.—Incidence of overt incest is less than one per million in English-speaking countries. Father-daughter or father-stepdaughter is most common and mother-son is least common. Some feel the incest taboo is needed to control the adults rather than the children. 4 cases of overt incest are described to illustrate its determination by the interlocking psychodynamics of the participants with a past and present setting of interaction in multiple generations, socioeconomic status, broader cultural conflict, and overall immature personality make-up.—*D. Prager.*

5439. Stekel, Wilhelm. **Auto-eroticism: A psychiatric study of onanism and neurosis.** New York: Grove, 1961. vii, 289 p. \$2.95(paper).—A

paperback edition of a book first published in 1950.—*C. T. Morgan.*

Drug Addiction

Suicide (& Homicide)

5440. Bruhn, John G. (U. Edinburgh, Scotland) **Broken homes among attempted suicides and psychiatric out-patients: A comparative study.** *J. ment. Sci.*, 1962, 108(Whole No. 457), 772-779.—Absence or loss of one or both parents by death or by separation due to marital disharmony characterized 42% of a group of 91 attempted suicides. Unemployment of the breadwinner, residential mobility, and marital disharmony were typical among attempted suicides from broken homes.—*W. L. Wilkins.*

5441. Farberow, Norman L., & Shneidman, Edwin S. (Eds.) (Suicide Prevention Cent., Los Angeles, Calif.) **The cry for help.** New York: McGraw-Hill, 1961. xvi, 398 p. \$9.95.—Farberow, Shneidman, Robert E. Litman, Norman D. Tabachnick, Calista V. Leonard, and Theodore J. Curphey discuss "The Suicide Prevention Center," "Statistical Comparisons Between Attempted and Committed Suicides," "Emergency Evaluation of Self-Destructive Potentiality," "The Assessment of Self-Destructive Potentiality," "Suicide Among Schizophrenic Mental Hospital Patients," various aspects of suicidal death, and "A Survey of Agencies for the Prevention of Suicide." The case history of a 23-year-old, white, Methodist, single college student is presented and discussed from various points of view: psychoanalytic (S. Furtman & H. Hendin), Jungian (B. Klopfer), Adlerian (L. Ansbacher), Sullivanian (M. R. Green), Horney (L. E. De Rosis), personal construct (G. A. Kelly), and Rogerian (S. Diamond). Each presents the theoretical framework and therapeutic implications. (Psychological, sociological, medico-legal, and religious-philosophical bibliographies: 1897-1957)—*L. W. Brandt.*

5442. Hankoff, L. D. **An epidemic of attempted suicide.** *Comprehen. Psychiat.*, 1961, 2(5), 294-298. A higher rate of attempted suicides was observed for 2 of 12 mo. of observation of an isolated command of United States Marine Corps troops. The men shared a distaste for their immediate environment and a desire to be out of it. The act of attempting suicide occurred in those previously having a potential for acting out. The cultural setting then superimposed the behavioral content on the form provided by the personality structure.—*D. Prager.*

5443. Sathyavathi, K., & Murti Rao, D. L. N. (All-India Inst. Mental Health) **A study of suicide in Bangalore.** *Trans. All-India Inst. Ment. Hlth.*, 1961, 2, 1-19.—A high rate of suicide in any country or area is taken as evidence of social disorganization. Suicide is considered the end result of certain forms of mental stresses. This study obtained all available information on successful suicides in the city of Bangalore and compared these data with those of other countries. In Western countries, male suicides are 3-4 times that of females. In India, suicide is more frequent among women under the age of 30 and more frequent among men who are over 30 years. Drowning is the most common method employed (38.2%). The reasons given for suicide are illness and economic factors.—*J. DiGiovanni.*

CRIME & DELINQUENCY

5444. Allchin, W. H. (Portman Clinic, London, England) **Some positive aspects of delinquent behavior.** *Brit. J. Criminol.*, 1962, 3(1), 38-46.—Delinquent behavior is viewed as (a) striving towards ego development, (b) endeavoring to deal with a loss of feeling of reality and identity, and (c) avoidance of an experience of weakness and dependency. Thus, overt aggression being a positive effort for communication and self-assertion can be transformed into a positive stimulus towards reform and health. Individual treatment, as well as social and political changes are suggested.—*M. P. Argyropoulos.*

5445. Bluestone, Harvey, & McGahee, Carl L. (New York) **Reaction to extreme stress: Impending death by execution.** *Amer. J. Psychiat.*, 1962, 119(5), 393-396.—18 men and 1 woman in the Sing Sing death house awaiting execution were studied for a year or 2 prior to their death. Certain common features in their backgrounds were noted as well as the use of defense mechanisms of denial, projection, and obsessive rumination with which they warded off extreme anxiety and depression that would have otherwise overwhelmed the prisoners.—*N. H. Pronko.*

5446. Craddick, R. A. (New Mexico State U.) **Draw-A-Person characteristics of psychopathic prisoners and college students.** *Percept. mot. Skills*, 1962, 15(1), 11-13.—Drawings of a man by 20 male psychopathic prisoners and 20 male college students were compared in terms of characteristic features which Machover (1949) suggested were indicative of psychopaths. None of these features differentiated between the 2 groups with the exception of shading. Here the differentiation was in an opposite direction to that suggested by Machover, since more of the students exhibited shading in their drawings than did the psychopaths.—*W. H. Guertin.*

5447. Dinitz, S., Scarpitti, F. R., & Reckless, W. C. **Delinquency vulnerability: A cross group and longitudinal analysis.** *Amer. sociol. Rev.*, 1962, 27(4), 515-517.—Comparison is made between a group of 70 white boys, currently 16 years old, who had been part of a cohort of 101 12-year-olds nominated by their teachers as headed for trouble with the law, and 103 same-aged boys out of an original cohort of 125 boys nominated by their teachers as likely to stay out of trouble with the law. The former "bad" or "vulnerable" boys at 16 had had more frequent contact with the court in the preceding 4 years, scored higher on a delinquency checklist measuring frequency of delinquent acts, and higher on the California Personality Inventory De scale assessing degree of poor socialization. The De scale scores at 16 correlated +.78 with the scores obtained 4 years earlier in the vulnerable sample, but only +.15 in the "good boy" sample. The vulnerable boys also had more friends who had been in trouble with the law.—*L. Berkowitz.*

5448. Epstein, Norman, & Slavson, S. R. (Children's Village, Dobbs Ferry, N. Y.) **"Break-through" in group treatment of hardened delinquent adolescent boys.** *Int. J. group Psychother.*, 1962, 12(2), 199-210.—A procedure for reaching fairly hardened, delinquent adolescent boys in a residential treatment program through a modified form

of analytic group psychotherapy is presented, focusing specifically upon the reversal from projection of blame upon the environment to self-understanding and self-confrontation.—*L. N. Solomon.*

5449. Fitch, J. H. (H. M. Prison, Bristol, England) **Two personality variables and their distribution in a criminal population: An empirical study.** *Brit. J. soc. clin. Psychol.*, 1962, 1(3), 161-167.—From studies of several hundreds of prisoners it was shown that performance on the E scale of the Maudsley Personality Inventory is related to age and, on the N scale, to the felt-anxiety of the reward situation. Although neuroticism and recidivism were found to be related, there was no direct evidence one way or the other with respect to Franks' theory of introversion-extraversion and recidivism. Sexual offenses tended to be committed more by introverts than by extraverts. Significant associations were also found between high E scores and variables suggestive of an early failure in socialization and between high N scores and reported childhood unhappiness or a family history of mental disorder.—*C. M. Franks.*

5450. Gueneau, Monique. **Masochisme et culpabilité chez le jeune délinquant.** [Masochism and guilt in the juvenile delinquent.] *Psychol. Franc.*, 1962, 7(2), 94-101.—A discussion is offered of factors contributing to delinquency. The author is critical of the view that delinquency is associated largely with low intelligence and suggests that a more adequate explanation is to be found in the circular frustration-aggression pattern. Adequate treatment would require extensive re-education.—*C. J. Adkins.*

5451. Jaffee, Lester D., & Polansky, Norman A. (Hebrew U., Jerusalem, Israel) **Verbal inaccessibility in young adolescents showing delinquent trends.** *J. Hlth. hum. Behav.*, 1962, 3(2), 105-111.—The goal was to study verbal accessibility among boys with emotional disorders. 3 groups were studied: (a) low-income Negro, N=102; (b) low-income white, N=72; and (c) middle-income white, N=105. "On the basis of Gough's So scale and external criteria, a subsample of boys with the most marked evidences of delinquent trends was identified in each sample. These were then compared with a subsample of boys showing the least signs of pre-delinquency. Comparisons were made with respect to three measures of verbal accessibility: attitude toward revealing intimate feelings; actual patterns of communication as reported by the boys; and responses to a device calculated to 'pull' emotional expressions. Results uniformly supported the hypothesis that, as compared with a contrast group, boys with delinquent trends tend to be relatively verbally inaccessible."—*L. A. Ostlund.*

5452. Kollerics, F. **Versuche zu einer Lebensplan-Typologie.** [Attempts toward a typology of life-plans.] *Psychol. Rdsch.*, 1962, 13(4), 270-274.—Detention home records of 226 juvenile delinquents yielded characteristic coefficients of instability. The coefficient was useful in the identification of certain types of delinquents; e.g., aggressive, egocentric, repressed groups.—*W. J. Koppitz.*

5453. McDavid, John W., & McCandless, Boyd R. (U. Miami) **Psychological theory, research, and juvenile delinquency.** *J. crim. Law Criminol. police Sci.*, 1962, 53, 1-14.—An evaluation of the

contributions of child psychologists to the study of delinquent behavior. The distinction between asocial behavior (delinquency) and antisocial behavior (criminality) is drawn.—*J. R. Kinzer.*

5454. **McNeil, Elton B.** (U. Michigan) **Patterns of aggression.** *J. child Psychol. Psychiat.*, 1962, 3(2), 65-77.—Counselor ratings of 59 emotionally disturbed and delinquent children at a "fresh air camp" supported the impression of differing patterns of aggression with different implications. Children who initiate fights tend to swear, call names, sulk, and become aggressive in competitive games. They are not significantly accepted or rejected by peers. Children who fight to protect themselves or others tend to be led into trouble but can compete without aggression suggesting that their actions are essentially social.—*J. M. Reisman.*

5455. **Maria, G.** **Malattie mentali crimino-genetiche.** [Criminal-genetic mental disease.] *Difesa soc.*, 1962, 41(2), 113-120.—Cerebral deterioration, schizophrenia, and manic-depressive disease account for 88% of crimes with attendant psychiatric disorder.—*L. L'Abate.*

5456. **Ravenette, A. T., & Kahn, J. H.** (County Borough, West Ham, England) **Intellectual ability of disturbed children in a working-class area.** *Brit. J. soc. clin. Psychol.*, 1962, 1(3), 208-212.—128 children attending a child guidance clinic in a working-class area were given the WISC as part of their clinical examination. The verbal ability of older boys was found to be significantly lower than their performance ability. The variability of subtest scores was significantly less than that obtained in a similar middle-class population. These results are related to previous work relating such data to personality structure, cultural, and class differences.—*C. M. Franks.*

5457. **Robison, Sophia M.** **Juvenile delinquency: Its nature and control.** New York: Holt, Rinehart & Winston, 1960. viii, 546 p. \$6.75.—"This text proposes to re-examine the field as it has been staked out by a variety of scientists and technologists. Part I looks critically at the processes of labeling behavior which, in the past, have assumed that delinquency is a state of being that, like a disease, can be identified and treated. Part II is concerned with the efforts to explain delinquency in terms of individual or family characteristics, the sociological concepts of ecology, role, class, the psychological and anthropological approaches in explaining behavior. Parts III and IV describe and evaluate official and unofficial agencies for dealing with delinquents in institutions or in the community. Part V outlines general proposals for preventing delinquency."—*N. De Palma.*

5458. **Siegmán, A. W.** (U. Maryland, School Medicine) **The relationship between future time perspective, time estimation, and impulse control in a group of young offenders and in a control group.** *J. consult. Psychol.*, 1961, 25(6), 470-475.—There is a positive correlation between the range of future time perspective, a time estimation task, and a motor impulse control task in delinquent Israeli boys. Motor impulse control is not related for controls, nor is there a significant difference between groups on this variable. There is no relationship between intelligence and future time perspective or impulse control.—*E. R. Oetting.*

5459. **Siegmán, A. W.** (U. Maryland School Medicine) **Personality variables associated with admitted criminal behavior.** *J. consult. Psychol.*, 1962, 26(2), 199.—An anonymously administered scale for admitted criminality, given to college students, relates negatively to the Gough Socialization scale and scales of religious belief and observance, and positively to Edwards' n Achievement. High scorers score higher on Factor II, Emotional Maladjustment of Quay and Peterson's Delinquency scale (see 34: 6326) but not on Factors I and III, Psychopathic Personality and Family Dissension. Sex is not significant.—*E. R. Oetting.*

5460. **Smith, J. O.** (San Fernando Valley State Coll., Northridge, Calif.) **Criminality and mental retardation.** *Train. Sch. Bull.*, 1962, 59(3), 74-80. Analysis of the writings on criminality and mental retardation leads the author to the following conclusions: (a) The early emphasis on intellectual subnormality as a cause of crime is over-exaggerated and misleading. (b) Those most intellectually subnormal are least involved in delinquent and criminal actions. (c) The trainable child (IQ 30-50) requires much supervision. Here retardates are guilty of misbehavior, their transgressions are usually the result of lack of supervision, lack of insight, or the result of misunderstanding. (d) Most studies indicate that the educable mentally retarded person is represented by a higher delinquency and criminal rate than would be expected by their general prevalence in society. (e) The retardate convicted of criminal action shows a history of inadequate or broken homes, little if any supervision, poor school provisions, alcoholism, more impulsive crimes, and little ability to provide for his economic needs successfully. (f) Society should be concerned with life rather than mere school planning for the mentally retarded.—*V. S. Sexton.*

5461. **Stott, D. H.** (Glasgow U., Scotland) **Delinquency and cultural stress.** *Brit. J. soc. clin. Psychol.*, 1962, 1(3), 182-191.—When Glasgow boys on probation were classified according to their family culture groups, those belonging to the groups regarded as socially inadequate showed significantly more indications of behavior disturbance than those in more socially adequate groups. It was suggested that this probably reflected the greater instability and stresses of the lower-culture families rather than teacher prejudice. Possible reasons for the existence of endemic delinquency in the large group of culturally intact working class families were discussed. It was also suggested that underprivileged children are more liable to congenital impairment and thus more vulnerable to stress.—*C. M. Franks.*

5462. **Taylor, A. J. W.** **Social isolation and imprisonment.** *Psychiatry*, 1961, 24(4), 373-376.—"This paper reports an attempt, using Hebb's approach, to test the hypothesis that personality deterioration is one of the effects of imprisonment, and that it is characterized by a loss of cognitive efficiency and a generalized lowering of motivational tone. . . . [2] tests of significance confirm deterioration on Koh's Block Design Test at and above the .05 level, and one confirms deterioration on the McGill Delta Block Test above the .05 level. . . . The experimental results did not [however]—either on all tests, or on the majority of tests—support the hypothesis that de-

terioration is an effect of imprisonment."—C. T. Morgan.

5463. United States Department of Health, Education, and Welfare, Children's Bureau. Research relating to juvenile delinquents. Washington, D. C.: United States Government Printing Office, 1962. 100 p. \$.35.—"This publication represents a listing of all research projects on juvenile delinquency which have been reported to the Children's Bureau Clearinghouse for Research in Child Life since 1948."—C. T. Morgan.

5464. Wolfgang, Marvin E., Savitz, Leonard, & Johnston, Norman. (Eds.) (U. Pennsylvania) *The sociology of crime and delinquency*. New York: Wiley, 1962. xiv, 423 p. \$6.75 (cloth); \$4.45 (paper).—A selection of 51 readings from the literature. The material is grouped in the following sections: "The Meaning of Criminology," "Problems of Criminal and Delinquency Statistics," "Methods and Techniques of Analysis," "The Social Structure: Empirical Data," "Social Values and Social Structure: Theoretical Analyses," "The Family Setting," and "Selected Patterns of Criminal Activity." Brief remarks introduce each section.—L. S. Kogan.

PSYCHOSES

5465. Declich, M. *Introduzione allo studio del diabolico in psichiatria*. [Introduction to the study of the devil in psychiatry.] *Arch. Psicol. Neurol. Psichiat.*, 1962, 23(5), 409-441.—On the basis of patients suffering from endogenous depressive psychoses, principal forms of demoniacal possession are presented and discussed.—L. L'Abate.

5466. Goldstone, S., & Goldfarb, J. L. (Houston State Psychiatric Inst.) *Time estimation and psychopathology*. *Percept. mot. Skills*, 1962, 15(1), 28.—Several experiments have demonstrated that schizophrenic Ss overestimate auditory durations when comparing inputs presented with a modified method of limits procedure and an arithmetic step interval. Patient groups identified shorter durations as equivalent to one second. The present study extended this investigation to other psychiatric populations and a chronically ill nonpsychiatric population and suggests that the earlier findings were specific to schizophrenia.—W. H. Guertin.

5467. Hart, Bernard. *The psychology of insanity*. Cambridge, England: Cambridge Univer. Press, 1962. xi, 127 p. \$1.25 (paper).—A paperback edition of the 5th (1957) edition of Hart's work. The 1st edition was published in 1912.—E. L. Borrowman.

5468. Lorr, M., McNair, D. M., Klett, C. J., & Lasky, J. J. (VA) *Evidence of ten psychotic syndromes*. *J. consult. Psychol.*, 1962, 26(2), 185-189.—10 psychotic syndromes are confirmed by factor analysis of 42 rating scales and 48 check list items rating a broad sample of psychotic patients. 3 2nd-order factors are isolated.—E. R. Oetting.

5469. Luby, Elliot D., Gottlieb, Jacques S., Cohen, Bertram D., Rosenbaum, Gerald, & Domino, Edward F. (Lafayette Clinic, Detroit, Mich.) *Model psychoses and schizophrenia*. *J. Psychiat.*, 1962, 119(1), 61-64.—A series of studies was carried out employing sensory isolation, drugs,

and sleep deprivation in control Ss and chronic schizophrenic patients in an attempt to isolate the essential feature of the schizophrenic process in terms of input, output, and central functions. The latter appears to be implicated in the model psychoses and schizophrenia.—N. H. Pronko.

5470. Morris, P. A. (Kingsway Hosp., Derby, England) *A survey of 100 female senile admissions to a mental hospital*. *J. ment. Sci.*, 1962, 108 (Whole No. 457), 801-803.—Patients living alone tended to have more senile dementia. Many were unable to shop or cook and needed mostly some sympathetic help. Widowhood and urban relocation had a deleterious effect, as such tended to remove old ladies from their neighborhood and friends and to promote isolation and confusion in new surroundings. Physical illness is a most important part of admission to psychiatric hospital in the elderly.—W. L. Wilkins.

5471. Sarvis, Mary A., & Garcia, Blanche. *Etiological variables in autism*. *Psychiatry*, 1961, 24 (4), 307-317.—In more than 80 autistic children studied (a) "the difficulties invariably involved the particular developmental stage when the mother was the primary object to the child, so that the disturbance caused the child to adopt a basic paranoid attitude toward the mother; (b) the children manifested all degrees of disturbance from very mild to very severe, from transitory autistic reactions to chronic, intransigent autistic disease. Children seen in institutions and psychiatric hospitals usually fall into the latter category."—C. T. Morgan.

5472. Rubin, Theodore Isaac. *Jordi, Lisa and David*. New York: Ballantine, 1962. 144 p. \$.50 (paper).—This description of a psychotic child is moot testimony to the turmoil, anxiety, and distortion of the perceptual world experienced by a gravely disturbed youngster. There is no Jordi. He is a composite of all those troubled children seen by the author, a practicing psychiatrist, as he traces the struggle of years of institutional treatment to eventual discharge. Lisa and David are 2 severely disturbed adolescents who attempt to find their identity in life against the odds of early and extreme emotional deprivations.—B. H. Light.

5473. Satyavati, K., & Surya, N. C. *The chronic female psychiatric patient*. *Pratibha*, 1959, 2(2), 71-76.—Analysis of 80 chronic Indian female psychiatric patients shows that avoidable isolation of the patient from her accustomed surroundings is the dominant factor leading to chronicity in a majority of cases. Short-term solutions are suggested.—U. Pareek.

5474. Schultz, Clarence G. *Case report of an obsessional patient*. *Psychiatry*, 1961, 24(2, Suppl.), 62-73.—During therapy, the patient shifted "from an initial obsessive-compulsive reaction to a depressive position, and finally to a paranoid."—C. T. Morgan.

5475. Shulman, Bernard H. *The meaning of people to the schizophrenic and the manic-depressive*. *J. indiv. Psychol.*, 1962, 18(2), 151-156.—The 2 disorders are contrasted on the basis of Adler's "life style." "The schizophrenic has no hope of getting along with people. . . . The cyclothymic has no hope of getting along without people." The symptoms of the former push other persons away while the symptoms of the latter aim to involve others.—A. R. Howard.

5476. Strejilevich, S. Mario. (Castelli 367, Buenos Aires, Argentina) **La turbulence nocturne de vieillard psychotique.** [Nocturnal disturbance of the aged psychotic.] *Encephale*, 1962, 51(3), 238-262.—Nocturnal disturbances are frequent in older psychotics, due to an aggravation of spatio-temporal orientation at night (loss of light). Study of a group of 20 patients for 30 nights found such disturbances in 2-6 nights. The pattern of sleep in older persons is reviewed and some hypotheses are examined. Biological (Na and K retention, hypoglycemia, cardiovascular difficulties) and psychophysiological (sensory isolation, memory impairment, problems in self-identification and orientation) factors play a definite role. Suggestions are made for treatment. (34 ref.)—*W. W. Meissner*.

5477. Whitehorn, John C. **Alienation and leadership.** *Psychiatry*, 1961, 24(2, Suppl.), 1-6.—"I have developed a conviction that psychotic patients present very special disturbances in the social interactions relative to leadership, and that the psychiatrist needs a clear, workmanlike understanding of leadership, particularly leadership in the consultative and evocative style."—*C. T. Morgan*.

Schizophrenia

5478. Adams, Henry E., Noblin, Charles D., Butler, Joel R., & Timmons, Edwin O. (Louisiana State U.) **Differential effect of psychoanalytically-derived interpretations and verbal conditioning in schizophrenics.** *Psychol. Rep.*, 1962, 11(1), 195-198.—38 schizophrenics performed in a sentence-completion verbal conditioning experiment. One experimental group, reinforced with mild affirmatory words for choosing the pronoun "I" showed significant acquisition and extinction effects. A 2nd experimental group, reinforced with interpretative sentences, showed acquisition but no extinction. A control group given no reinforcements showed no practice effect. Results are compared to previous findings with nonpsychotic Ss.—*B. J. House*.

5479. Arieti, S. **Volition and value: A study based on catatonic schizophrenia.** *Comprehen. Psychiat.*, 1961, 2(2), 74-82.—Following a case report it is concluded that catatonia is predominantly a disorder of the will, that catatonics are tortured by the potential destructiveness of responsibility, that the passivity of the catatonic is a relief from such responsibility, and that the catatonic is a volcano of nonpetrified feelings rather than an ivory tower.—*D. Prager*.

5480. Bannister, D. (Bexley Hosp., Bexley, Kent, England) **The nature and measurement of schizophrenic thought disorder.** *J. ment. Sci.*, 1962, 108 (Whole No. 457), 825-842.—Normals, thought-disordered, and non-thought-disordered schizophrenics, depressives, and neurotics were compared on results on the repertory grid test, modified to be a photograph sorting task. Thought-disordered Ss could be distinguished but the additional diagnostic groups and the normals less so. While the distinction between the 2 schizophrenic groups on weakness of construct relationships and idiosyncratic deviation in construct relationships were not replicated, it is concluded that George Kelly's personal construct theory is a useful framework for understanding behavior—especially psychiatric conditions.—*W. L. Wilkins*.

5481. Beech, H. R., & Parboosingh, P. C. (Inst. Psychiatry, London, England) **An experimental investigation of disordered motor expression in a catatonic schizophrenic patient.** *Brit. J. soc. clin. Psychol.*, 1962, 1(3), 222-227.—From a systematic experimental investigation of mannerisms and gesticulations in an unmarried female patient 2 main conclusions emerged: (a) the motor symptoms observed were subject to disinhibition by extraneous stimuli and (b) the lack of verbal responsiveness was related to defective verbal-motor output rather than to disordered sensory input.—*C. M. Franks*.

5482. Brody, Eugene B. **Social conflict and schizophrenic behavior in young adult Negro males.** *Psychiatry*, 1961, 24(4), 337-346.—"The preliminary study group reported here was characterized by the following: (1) essentially matriarchal families with aggressive, central mothers and passive, absent or remote fathers; (2) important relationships with slightly older or more successful male peers (including siblings and cousins), and a tendency to disruption of these relationships before the psychotic break; (3) psychoses with prominent elements of confusion and somatic concern, and a paranoid attitude but poorly organized or absent delusions; (4) a tendency to overt homosexual concern or a past history of homosexual interest or activity."—*C. T. Morgan*.

5483. Burnham, Donald L. **Identity definition and role demand in the hospital careers of schizophrenic patients.** *Psychiatry*, 1961, 24(2, Suppl.), 965-122.—A detailed presentation of 4 cases. "The schizophrenic patient's efforts to define his identity may be complicated by the demands of the role of patient within the hospital social structure."—*C. T. Morgan*.

5484. Cowden, Richard C. (VA Hosp., Pittsburgh, Pa.) **Problem-solving in schizophrenics as a function of motivation.** *Psychol. Rep.*, 1962, 10, 627-633.—Seventeen schizophrenics, 17 organics, and 17 normals, matched as to age, IQ, and reading ability were asked to solve anagrams while working under two different levels of stress and a control condition. The results indicate a significant difference between the normals and two patient groups in conceptual ability. The more difficult the task, the more obvious a deficit is shown by the patients. The schizophrenics cannot be differentiated from the organics on the basis of conceptual ability alone, although this may be due to the marked inter-individual variability shown by the schizophrenics. Stress alone has no significant influence on performance. There is a tendency for the schizophrenics to improve their performance under stress while the organics tend to show an increased deficit."—*B. J. House*.

5485. Draguns, Juris G. (Rochester State Hosp.) **Responses to cognitive and perceptual ambiguity in chronic and acute schizophrenics.** *J. abnorm. soc. Psychol.*, 1963, 66(1), 24-30.—Responses of 25 acute and 34 chronic schizophrenics to perceptual and cognitive ambiguity were compared with those of 36 normal control Ss by means of: several "decision location" series consisting of blurred photographs presented in the order of increasing clarity; a series of pictures which could be matched, at Ss' discretion, with a number of statements allegedly made by the persons pictured; a series of pictures to be similarly matched with nationality names. The chronic Ss

compared to normals offered earlier recognition responses on the perceptual task and matched more items on the cognitive measures. The scores of the acute group, however, yielded uniformly negative results and were found to be intermediate in relation to those of the chronic and normal Ss. (31 ref.)—*Journal abstract.*

5486. Farina, A., Garnezy, N., Zalusky, M., & Becker, J. (Duke U.) Premorbid behavior and prognosis in female schizophrenic patients. *J. consult. Psychol.*, 1962, 26(1), 56-60.—Married female patients and those with good social interpersonal relationships prior to admission recover relatively rapidly.—E. R. Oetting.

5487. Fish, Barbara; & Alpert, Murray. (New York U. School Medicine) Abnormal states of consciousness and muscle tone in infants born to schizophrenic mothers. *Amer. J. Psychiat.*, 1962, 119(5), 439-445.—15 children born to mothers diagnosed as schizophrenic and institutionalized in 2 New York State mental hospitals were observed from shortly after birth and for up to 10 to 24 months following for possible deviations. "These deviations in the state of consciousness, motility and muscle tonus as early as the first day of life, and continuing into the early months of infancy, provide additional evidence of some early disturbance of functioning of the nervous system in this population, which was genetically loaded for schizophrenia. It is postulated that these dysfunctions are related to the disturbances of motility, excitability and perception which are seen in older schizophrenic children."—N. H. Pronko.

5488. Foulds, G. A., & Dixon, Penelope. (Runwell Hosp., Wickford, Essex, England) The nature of intellectual deficit in schizophrenia: III. A longitudinal study of the sub-groups. *Brit. J. soc. clin. Psychol.*, 1962, 1(3), 199-207.—"One hundred and eighty-six of the original 270 schizophrenics were re-tested on Progressive Matrices (1938) and the Mill Hill Vocabulary after a two year interval. Acute cases in all sub-groups showed powers of recovery, particularly catatonics. The overall conclusions were that all types of schizophrenics showed intellectual impairment—a reversible type of deficit, that this impairment was more or less completed by the time of first admission and that any further decrement was brought about by age, not by a progressive deficit and not mediated by hospitalization or related to length of illness."—C. M. Franks.

5489. Harms, Ernest. Did Johann Christian Reil describe schizophrenia in 1803? *Psychiatry*, 1961, 24(2), 183-184.—Reil saw clearly the general symptomatology and the differential typology of schizophrenia even if he was wrong in believing that the majority of types result from earlier mental illnesses.—C. T. Morgan.

5490. Havener, P. H., & Izard, C. E. (Vanderbilt U.) Unrealistic self-enhancement in paranoid schizophrenics. *J. consult Psychol.*, 1962, 26(1), 65-68.—Using the Berger Scale, the Tennessee Department of Health Self-Concept Scale, and the MMPI Lie scale, results are interpreted to indicate that paranoids show "unrealistic self-enhancement, a defense against complete loss of genuinely positive self-related affect and of satisfying interpersonal affective ties."—E. R. Oetting.

5491. Hunter, M., Schooler, C., Spohn, H. E. (VA Hosp., Brooklyn, N. Y.) The measurement of characteristic patterns of ward behavior in chronic schizophrenics. *J. consult. Psychol.*, 1962, 26(1), 69-73.—A time sample scale for objective assessment of ward behavior is developed. The Location-Activity-Inventory gives reliabilities from .78 to .91 and meaningful correlations with clinical data. Theory and applications are discussed.—E. R. Oetting.

5492. Kamano, D. K. (Galesburg State Research Hosp., Ill.) Self-satisfaction and psychological adjustment in schizophrenics. *J. consult. Psychol.*, 1961, 25(6), 492-496.—An index of self-satisfaction was obtained by the semantic differential technique from actual-self, ideal-self, and least-liked-self ratings of schizophrenic women. Ss showing high self-satisfaction show less recall of unfavorable items from a personal evaluation of themselves and have a greater discrepancy between level of performance and level of aspiration.—E. R. Oetting.

5493. Lu, Yi-chuang. Mother-child role relations in schizophrenia. *Psychiatry*, 1961, 24(2), 133-142.—A preliminary study of genesis of schizophrenia using nonschizophrenic siblings as controls.—C. T. Morgan.

5494. Lubin, A., Gieseck, C. F., & Williams, H. L. (Walter Reed Army Inst. Research) Direct measurement of cognitive deficit in schizophrenia. *J. consult. Psychol.*, 1962, 26(2), 139-143.—A comparison of the Army Classification Battery scores of schizophrenic patients with their previous enlistment resulted in: Pattern Analysis and Mechanical Aptitude deteriorate less than Reading and Vocabulary, Army Clerical Speed, and Arithmetical Reasoning. Deficit of $\frac{1}{4}$ - $\frac{1}{2}$ of a standard deviation is less than that for brain injured Ss.—E. R. Oetting.

5495. Lucas, C. J., Sainsbury, Peter, & Collins, Joyce G. (University Coll., London, England) A social and clinical study of delusions in schizophrenia. *J. ment. Sci.*, 1962, 108(Whole No. 457), 747-758.—In 405 schizophrenics, delusions with religious or supernatural content were more frequent in persons of higher social status, and more frequent among single than married persons. Grandiose delusions were more associated with higher social or educational background and with eldest as compared with youngest siblings. Sexual delusions were more common among women than among men. Paranoid delusions were more common among youngest siblings and among newcomers to the area rather than natives.—W. L. Wilkins.

5496. MacDonald, W. Scott, & Sheehan, Joseph G. (U. California, Los Angeles) Responses of schizophrenics to different incentives. *Psychol. Rep.*, 1962, 11(1), 211-217.—Food reward, individual encouragement, and social encouragement were used as incentives for a repetitive motor task and a verbal task. "The schizophrenic group (N=18) was compared with a hospitalized tubercular (N=18) and a non-hospitalized 'normal' control group (N=18), with whom they were similar in education and age. On the motor task, schizophrenics responded least to group incentives and most to the more concrete food reward. For the verbal task, individual encouragement proved most effective. These differences did not

appear in the two control groups." Results are related to hypotheses about schizophrenia.—*B. J. House.*

5497. Mednick, S. A. (U. Michiagn) **Schizophrenia: A learned thought disorder.** In G. Nielson (Ed.), *Proceedings of the XIV International Congress of Applied Psychology. Vol. 4. Clinical psychology* (see 37: 4119). Pp. 167-178.—Descriptions of how a breakdown may occur and the "reactive and process dichotomy." A current research project is discussed.—*B. T. Jensen.*

5498. Meyer, Joachim-Ernst. **Brief communications: Depersonalization in adolescence.** *Psychiatry*, 1961, 24(4), 357-360.—2 cases of depersonalization syndromes occurring in adolescence and often mistaken for pseudoneurotic schizophrenia are described.—*C. T. Morgan.*

5499. Payne, R. W. (Queen's U., Kingston, Ontario) **An object classification test as a measure of overinclusive thinking in schizophrenic patients.** *Brit. J. soc. clin. Psychol.*, 1962, 1(3), 213-221.—The object classification test consists of 12 small objects which can be sorted in 10 ways. It was predicted that patients suffering from overinclusive thought disorder would produce a large number of additional and unusual sortings. From a study of 120 normals and 126 neurotic or psychotic patients it was found that only acute schizophrenics produced overinclusive thinking and, of these, only $\frac{1}{2}$ gave an abnormally large number of unusual responses. Chronic schizophrenics, although no more overinclusive than non-schizophrenics, gave significantly fewer usual responses than did normals. It is therefore suggested that overinclusive thinking in schizophrenics may be a relatively good prognostic sign.—*C. M. Franks.*

5500. Rotshtein, G. A. **Ipokhondricheskaia shizofreniia.** [Hypochondriac schizophrenia.] Moscow, USSR: Institute Psychiatry MZ RSFSR, 1961. 138 p.—After a discussion of the general psychopathology of hypochondriac schizophrenia, the author discusses the following variants: "the paranoid, the senestopathic, and the depressive-paranoid." The author concludes with a discussion of the pathogenesis and therapy of hypochondriac states.—*I. D. London.*

5501. Sampson, Harold; Messinger, Sheldon L., & Towne, Robert D. **Two types of schizophrenic crises in women.** *Bull. Menninger Clin.*, 1961, 25(6), 296-306.—10 cases selected from a group of 17 hospitalized schizophrenic women provided illustrations of 2 types of crises: crises of separation in which marital life required "differentiation from the mother or from a type of dependence and symbiotic identification modeled after the earliest mother-child relationship," and crises of identification in which the mobilization of certain identifications with their mothers constituted the decisive threat to marital life. In the latter case, marriage, parenthood, or specific anniversaries mobilized dissociated identifications with a characteristic content.—*W. A. Varvel.*

5502. Sastry, M. N. C., & Kasturi, H. Y. (All-India Inst. of Mental Health) **Conceptual error, vocabulary and level of abstraction.** *Trans. All-India Inst. Ment. Hlth.*, 1961, 2, 107-114.—The nature and extent of relationship among different types of errors possible in Epstein's test were studied, and each of them was related to vocabulary level and level of abstraction as assessed by the Shipley-Hartford

test. The research was aimed at the relationship of vocabulary and abstraction to overinclusive thinking, said to be characteristic of schizophrenic illness. 4 types of scores (over-inclusion, under-inclusion, total conceptual error, and time) were obtained with the former test, and only 2 scores (vocabulary and abstraction) with the latter.—*J. DiGiovanni.*

5503. Searles, Harold F. **Sexual processes in schizophrenia.** *Psychiatry*, 1961, 24(2, Suppl.), 87-95.—Sexual factors comprise one major thread which, when carefully traced through the various phases of a patient's life, help link otherwise patternless behavior and reveal the continuity of the over-all path.—*C. T. Morgan.*

5504. Sen, N. N., & Sunderaraj, N. **Statistical studies on hospitalised mental patients: Part II.** *Pratibha*, 1959, 2(1), 112-120.—A few important variables were found in a group of 200 schizophrenics. The variables related to age, economic standard, genetic factor, personal history, history of present illness, physique, etc.—*U. Pareek.*

5505. Steffy, R. A., & Becker, W. C. (U. Illinois) **Measurement of the severity of disorder in schizophrenia by means of the Holtzman Inkblot Test.** *J. consult. Psychol.*, 1961, 25(6), 555.—Elgin Prognostic Scale ratings correlate negatively with genetic level ratings from the Holtzman Inkblot Test in hospitalized schizophrenics.—*E. R. Oetting.*

5506. Thorpe, J. G. (Banstead Hosp., Sutton, Surrey, England) **The response of chronic female schizophrenics to monetary incentives.** *Brit. J. soc. clin. Psychol.*, 1962, 1(3), 192-198.—From a controlled study of 25 chronic female schizophrenics working at a factory type task for 8 weeks it was concluded that (a) the incentives used had no apparent effect upon production, (b) the learning curve was a straight line, (c) productivity was higher in the afternoons than in the mornings.—*C. M. Franks.*

5507. Vinogradov, N. V. (Medical Inst., Vitebsk, USSR) **Ob okhranitel'nom i "zastoimom" tormozhenii u bol'nykh shizofreniei.** [Protective and "stagnant" inhibition in schizophrenic patients.] *Zh. vyssh. nervn. Deiatel.*, 1962, 12(3), 426-431.—By means of the plethysmographic technique CR were established in 56 schizophrenics. Sound and light were used as CS and temperature as reinforcement. A slow process of extinction of the CR was found in 9 patients; this is called inert or stagnant inhibition. It occurred with patients suffering from a protracted disease.—*A. Cuk.*

5508. Wertheimer, Nancy M. (U. Colorado) **Schizophrenic sub-diagnosis and age at menarche.** *J. ment. Sci.*, 1962, 108(Whole No. 457), 786-789.—Late menarche females tend to have chronic diagnoses more frequently than early menarche females. For schizophrenics whose psychoses became manifest before age 25, puberal age was related to schizophrenic subtype.—*W. L. Wilkins.*

5509. Will, Otto Allen, Jr. **Paranoid development and the concept of self: Psychotherapeutic intervention.** *Psychiatry*, 1961, 24(2, Suppl.), 74-86.—"A condensed outline of a therapeutic procedure, attention being directed to certain aspects of regression and the attempts made to interrupt a destructive paranoid resolution of schizophrenic disorganization."—*C. T. Morgan.*

Affective Disorders

5510. Beck, A. T. A systematic investigation of depression. *Comprehen. Psychiat.*, 1961, 2(3), 163-170.—A depression inventory was developed and found to have high reliability and reasonably high correlation with clinicians' ratings of depth of depression. Masochism scores on the Focused Fantasy Test and the Masochism Inventory supported the hypothesis that depressed patients have a persistent need to suffer. More than 200 depressed and nondepressed psychiatric patients were the Ss tested.—D. Prager.

5511. Post, Felix. (Maudsley Hosp., London, England) The social orbit of psychiatric patients. *J. ment. Sci.*, 1962, 108 (Whole No. 457), 759-771.—Prevalence of psychiatric disturbance among persons emotionally significant to 40 patients with affective and neurotic illnesses was determined to be about 40%—these had psychiatric or psychosomatic symptoms concurrently with the patients' illnesses. In 5 cases it was clear that persons in the patients' entourage had been as ill as the patient or responsible for his symptoms. Significant others of certain patients seem drawn toward persons with psychiatric propensities, and it is suggested that heredity plays a minor role.—W. L. Wilkins.

5512. Rado, S. The automatic motivating system of depressive behavior. *Comprehen. Psychiat.*, 1961, 2(5), 248-260.—The system derives from the pattern of expiatory behavior taught the child by parents and others entrusted with his education. It is hypothesized that infantile depression is to be interpreted as a prolonged attack of retroflected rage. It is further assumed that the rage-retroflexing mechanism forms part of the innate brain organization of the infant. Viewed as a pathologic form of atonement for destructive fantasies toward the frustrating nipple or breast, depressive behavior may prove to be a response traceable to the suckling period. Physiologic and biochemical correlates of the emotional forces of which the atonement pattern is composed (rage, retroflected rage, fear, fear of conscience, and guilty fear) have been and are being explored.—D. Prager.

5513. Schneemann, K. Bemerkungen zum Problem der Zeitstörung in endogenen Depressionen unter Berücksichtigung der Dependenzlehre von Nicolai Hartmann. [Remarks on the problem of disturbed time sense in endogenous depressions in relation to the "dependency doctrine" of Nicolai Hartmann.] *Confin. psychiat.*, Basel, 1962, 5(1), 37-57.—The derivation of disturbances of time perspective from inhibited biological process as suggested by E. Straus, von Gebattel, and others is not upheld by comparative clinical findings. Depression can still be regarded as endogenous and of a process character, but as developing in the uppermost stratum of being, on which the lower strata, including bodily process, is dependent, according to the views of N. Hartmann.—E. W. Eng.

Physiological Correlates

5514. Lief, H. I., Dingman, J. F., & Bishop, M. P. (1430 Tulane Ave., New Orleans 12, La.) Psychoendocrinologic studies in a male with cyclic changes in sexuality. *Psychosom. Med.*, 1962, 24(4), 357-368.—Soon after therapy began for a 23-year-old man who had a cyclic alternation of feeling

and acting male and female for 11 years, the alternating phases ceased, accompanied by a striking increase of urinary 17-ketosteroids. The developmental and the endocrinological data obtained suggest an association between a derangement in the normal development of endrogenic characteristics and his homoerotic pattern. The possible psychophysiological bases for this unusual disorder are discussed.—W. G. Shipman.

PSYCHONEUROSES

5515. Adams, Lucille J. Mothers' anomic attitudes and childhood disorders. *Smith Col. Stud. soc. Wk.*, 1962, 33(1), 19-40.—Children brought for agency casework treatment were classified into neurotic or acting out categories. Mothers of the latter group measured higher in feelings of anomie as scored on Strole's Test of Anomie.—G. Elias.

5516. Hau, T. F. Zur Psychodynamik neurotischer Rententendenzen. [Psychodynamics of neurotic pension-tendencies.] *Psychol. Rdsch.*, 1962, 13(3), 208-213.—50 patients with neurotic pension-tendencies were compared with 50 unselected neurotic patients of the same hospital. The Maudsley Personality Questionnaire and depth exploration were employed in this comparison. The neurotic character structure was not significantly different in either group; however, the pension-aspiring group could be differentiated from the control group by characteristic trends of early childhood experiences and their effects on the personality.—W. J. Koppitz.

5517. Kiersch, Theodore A. (U. Illinois Health Service, Champaign) Amnesia: A clinical study of ninety-eight cases. *Amer. J. Psychiat.*, 1962, 119(1), 57-60.—The study of 98 cases of amnesia in military personnel "led to the conclusion that there were in fact four main categories of amnesia and some identifiable subcategories."—N. H. Pronko.

5518. Kohler, M. (Karl-Marx-U., Leipzig, East Germany) Das Elektrodermatogramm als Hilfsmittel zur Darstellung des Heilungsverlaufes bei Neurosen. [Electrodermatogram as an aid in assessing recovery from neuroses.] *Psychiat. Neurol. med. Psychol.*, Leipzig, 1962, 14(9), 335-342.—In 25 patients a total of 132 electrodermatogram (EDG) with 1848 individual curves were recorded, based on about 9300 measurements. Only a few illustrations from all these data are reported, which show changes in laterality and lability of the EDG in the course of psychotherapy. Treatment consisted mainly of suggestions in the fashion of "autogenic training," which were repeated to the patient by magnetic tape recordings. It is claimed that "a definite behavior of the curves proved to be the optimum effect of relaxation." The references relate the EDG to various theories on autonomic nervous activity and to Pavlov's "second signal system," but the published data do not permit independent verification.—R. Kaelbling.

PSYCHOSOMATICS

5519. Atanelishvili, E. V. O funktsional'nom sostoianii tsentral'noi nervnoi sistemy u bol'nykh iazvennoi bolezni'u zheludka i dvenadtsatiperstnoi kishki i ego izmeneniia v resul'tate lecheniia v usloviakh sanatoriia "Likani." [On the functional state of the central nervous system in patients with ulcers of the stomach and duodenum and its change

as a result of treatment under the conditions in the sanatorium "Likani." *Soobshch. Akad. Nauk Gruz. SSR*, 1962, 29(1), 95-100.—A study of motor reactions to visual and auditory stimuli in 142 Ss with gastric and duodenal ulcers leads to the conclusion that in such cases there exist "low lability of the basic nervous processes, weakness in the stimulatory process with simultaneous weakness of internal inhibition and speedy fatigue of the cortical cells."—*I. D. London.*

5520. **Bahnon, Claus Bahne, & Wardell, Walter I.** (U. Connecticut) **Parent constellation and psychosexual identification in male patients with myocardial infarction.** *Psychol. Rep.*, 1962, 10, 831-852. (Monogr. Suppl. 3-V10).—"All first myocardial infarctions occurring in white males, aged 35 to 64, residing in Middlesex County, Connecticut, were studied by means of a questionnaire interview. . . . A comparison group, studied in exactly the same way, included white males of the same age group, free from coronary disease who had been hospitalized during the same time interval for another severe illness of recent onset." Data are interpreted as showing that most coronary patients have feminine identification which leads to stress and conflict. A minority was regarded as father oriented but "both subgroups . . . had failed to establish their own identities in a satisfactory manner. The discussion endeavors to relate hypothetically these conflicts of identification to myocardial infarction."—*B. J. House.*

5521. **Castelnuovo-Tedesco, P.** (Harbor General Hosp., Torrance, Calif.) **Emotional antecedents of performance of ulcers of the stomach and duodenum.** *Psychosom. Med.*, 1962, 24(4), 398-416.—20 ulcer patients were studied psychiatrically. It was concluded that, generally, emotional factors were intimately involved. However, the importance of diet, alcohol, activity, and other concurrent disease also was noted. Particularly where no other serious disease coexists, perforation should be taken as presumptive evidence that the patient has tried unsuccessfully to resolve an emotional crisis. The authors suggest appropriate psychiatric help as part of the total treatment. (133 ref.)—*W. G. Shipman.*

5522. **Dauids, Anthony, & DeVault, Spencer.** (Emma Pendleton Bradley Hosp., Riverside, R. I.) **Maternal anxiety during pregnancy and childbirth abnormalities.** *Psychosom. Med.*, 1962, 24(5), 464-470.—50 clinic patients in the 3rd trimester of pregnancy were administered the Wechsler-Bellevue, MA Scale, Sentence Completion, and TAT. Both patient and examiner also rated her anxiety. Following childbirth the women were classified by experienced obstetricians as to childbirth abnormalities, yielding 2 subgroups of 25 cases. The women who were to experience complications were markedly more anxious on almost all the scales.—*W. G. Shipman.*

5523. **Delay, Jean, Brion, S., & Escourolle, R.** **Panhypopituitarisme et troubles mentaux.** [Panhypopituitarism and mental illness.] *Encephale*, 1962, 51(2), 109-131.—Previous experience with psychiatric symptoms accompanying panhypopituitarism are reviewed, and clinical and anatomical evidence from 2 new cases is presented. Panhypopituitarism, whether postpuerperal or of some other origin, is frequently and often quickly followed by psychic disturbances of mental confusion with a pre-

dominance of hallucinatory forms. Similar symptoms are observed in connection with myxedema and Addison's disease. The problem of the nature of the connection between the endocrinopathy and the psychopathology is raised and discussed. (37 ref.)—*W. W. Meissner.*

5524. **Erfmann, Irmgard.** **Age and manifestation of psychosomatic disorders.** *Vita hum.*, Basel, 1962, 5, 161-166.—An analysis of 1019 German patients with psychosomatic disorders showed that in 84% of the cases the 1st manifestation of disease occurred before the age of 40, with more than 50% reporting the 1st symptom between the ages of 15 and 30. There was a slight tendency for women to show the 1st manifestation at an earlier age than men. The more frequent psychological factors involved in the 1st signs of illness were conflicts in professional or occupational areas, social relationships, emotional problems, or war stress. It is hypothesized that conflict situations are reacted to by somatization before the age of 40 whereas other means of handling conflicts are employed by older people.—*J. L. Yager.*

5525. **Gilberstadt, Harold.** (VA Hosp., Minneapolis, Minn.) **A modal MMPI profile type in neurodermatitis.** *Psychosom. Med.*, 1962, 24(5), 471-476.—The MMPI profiles of 20 neurodermatitis and 39 nonfunctional skin cases were compared. Modal profile for the neurodermatitis sample was a low profile with highest elevations on Hs and Hy. A high Pd score was often present. The author concluded that there are several character types found within this disorder.—*W. G. Shipman.*

5526. **Gonda, Thomas A.** (Inst. Experimental Psychology, Oxford U.) **The relation between complaints of persistent pain and family size.** *J. Neurol. Neurosurg. Psychiat.*, 1962, 25(3), 277-281. "A study of a representative neurological outpatient population of 123 in a number of dimensions reveals a relationship between family size and complaint of pain. Specifically, those patients who persistently complain of pain tend to have significantly more siblings than those who do not complain of pain to their doctors."—*M. L. Simmel.*

5527. **Graham, D. T., Lundy, R. M., Benjamin, Lorna S., Kabler, J. D., Lewis, W. C., Kunish, Nancy O., & Graham, Frances K.** (U. Wisconsin Medical School, Madison) **Specific attitudes in initial interviews with patients having different psychosomatic disorders.** *Psychosom. Med.*, 1962, 24(3), 257-266.—2 interview studies with hospitalized patients investigated whether attitudes predicted to be associated with diseases were more applicable to patients having the disease in question than to patients who had another disease. The percentage of predicted choices was significantly greater than the expected percentage in both studies and in both the blind and the nonblind interviews, and when naive interviewers and judges were employed.—*W. G. Shipman.*

5528. **Heinzelmann, Fred.** (US Public Health Service) **Factors in prophylaxis behavior in treating rheumatic fever: An exploratory study.** *J. Hlth. hum. Behav.*, 1962, 3(2), 73-81.—Interviews were held with 284 college students who had a history of rheumatic fever and/or rheumatic heart disease. The goal was to discover factors which differentiate persons who maintain prophylaxis from those who do

not. "Four general categories were considered in the analysis of the data: psychological factors, medical factors, sociological factors, and factors relative to the contact between the individual and physicians." Conclusion: "it is a person's subjective definition of his health situation as reflected in these beliefs rather than objective fact which is of primary importance in influencing his behavior. Any efforts which are made to promote the acceptance of prophylaxis must, therefore, be focused upon the frame of reference of the individual who has a history of rheumatic fever."—*L. A. Ostlund.*

5529. Kahana, R. J. (9 Elba St., Brookline, Mass.) A remission through crisis in ulcerative colitis. *Psychosom. Med.*, 1962, 24(5), 499-506.—The psychotherapy of a man with ulcerative colitis is reported in which a psychological crisis preceded remission of bowel dysfunction. This turning point featured hypnagogic hallucinations and dreams. The deeper psychological meaning of the illness and the crisis is seen as the patient's attempt to incorporate a constant, consistently gratifying maternal image.—*W. G. Shipman.*

5530. Kenyon, F. E. (Maudsley Hosp., London, England) A psychiatric survey of a random sample of out-patients attending a dermatological hospital. *J. psychosom. Res.*, 1962, 6(2), 129-135.—100 consecutive first referrals, aged 15 and up, attending a skin hospital outpatient clinic were administered the Maudsley Personality Inventory (MPI) and a medical questionnaire. Bacterial and fungus infection cases had the highest neuroticism and the lowest extraversion scores. Virus wart cases were both highly neurotic and extraverted. When the MPI was checked against many history and symptom variables the only significant finding was that high neuroticism scores characterized people who previously had a nervous breakdown, thought nerves were important to their disease, or who had other symptoms.—*W. G. Shipman.*

5531. Kissen, D., & Eysenck, H. J. (U. Glasgow, Scotland) Personality in male lung cancer patients. *J. psychosom. Res.*, 1962, 6(2), 123-127.—Administration of the Maudsley Personality Inventory to 239 males attending outpatient chest clinics indicated that lung cancer patients are "somewhat extraverted and markedly lower in neuroticism compared with non-cancer controls, and that there may be interaction effects with a history of other psychosomatic disorders."—*W. G. Shipman.*

5532. Lynn, David L., Glaser, Helen H., & Harrison, Grace S. (U. Colorado Medical Center) Comprehensive medical care for handicapped children: III. Concepts of illness in children with rheumatic fever. *Amer. J. Dis. Children*, 1962, 103(2), 120-128.—Doll play and interviews were used to compare 25 children with rheumatic fever and 25 nonrheumatics. Both groups shared a frequently held concept that illness was self-caused, but "children with rheumatic fever, more than nonrheumatics, associated illness with pain, physical restrictions, social handicap, heart disease, crippling, and death. The physician, in handling the patient's feelings through an understanding indirect approach, may expect to profit in management of children with rheumatic fever."—*A. B. Warren.*

5533. Markwell, E. D., Jr. (U. Arkansas Medical Cent.) Autonomic nervous system measures and factor correlates with personality indices in a tuberculous population. *J. consult. Psychol.*, 1962, 26(2), 194.—Only a few correlations between 19 physiological measures of autonomic nervous system function and MMPI scores are significant. Sublingual temperature is related to D. High apparent sympathetic dominance may be associated with psychopathic or character disorder. Dermographia latency and finger temperature relate to Hy and Pa. The former also relates to F.—*E. R. Oetting.*

5534. Meinhardt, K., & Robinson, H. A. (Norwalk, Calif.) Stokes-Adams syndrome precipitated by emotional stress: Report of a case. *Psychosom. Med.*, 1962, 24(4), 325-330.—Regular psychiatric interviews of a 28-year-old man with frequent Stokes-Adams episodes led the authors to conclude that there was a close connection between the S's intense unsatisfied dependency strivings and precipitation of his complete heart block. They proposed that these emotions cause intense vagal stimulation and thus precipitate the heart block.—*W. G. Shipman.*

5535. Pasamanick, Benjamin. (Ohio State U.) Prevalence and distribution of psychosomatic conditions in an urban population according to social class. *Psychosom. Med.*, 1962, 24(4), 352-356.—The findings on rates and socioeconomic distributions of some psychosomatic conditions in 2 major studies (Midtown and Baltimore) are compared. Marked disparities are described and attributed to the interview of the Midtown study. Household interviews do not agree with clinical evaluations.—*W. G. Shipman.*

5536. Schonfeld, W. A. (Columbia-Presbyterian Medical Cent., NYC) Gynecomastia in adolescence: Effect on body image and personality adaptation. *Psychosom. Med.*, 1962, 24(4), 379-389.—Psychiatric study was undertaken of 284 boys and men with varying degrees and types of enlargement of the breasts. Time of onset was very important. Most affected were those who developed publicly noticeable breasts during adolescence. Type and intensity of reaction were determined by previous personality, especially inner self acceptance and availability of compensatory assets. (20 ref.)—*W. G. Shipman.*

5537. Shrifte, Miriam L. (59 W. 12th St., NYC) Toward identification of a psychological variable in host resistance to cancer. *Psychosom. Med.*, 1962, 24(4), 390-397.—A hypothesis that "massive, unresolved, unpleasant feeling tension is related to low host resistance" was not confirmed when 15 slow and 7 fast growing cancer Ss (matched for age, sex, and socioeconomic status) were compared using the Rorschach. Restudy of the cases suggested that the fast and not the slows "tended to put more into than they took from the outside world." (32 ref.)—*W. G. Shipman.*

5538. Stein, A., Kaufman, M. R., Janowitz, H. D., Levy, M. H., Hollander, F., & Winkelstein, A. (Mt. Sinai Hosp., NYC) Changes in hydrochloric acid secretion in a patient with a gastric fistula during intensive psychotherapy. *Psychosom. Med.*, 1962, 24(5), 427-458.—For 2½ years, the gastric secretory functions of a 60-year-old woman with a small gastric fistula were observed

during psychotherapy. After 8 months of therapy the high normal level of gastric acidity dropped to a low normal level. This seemed to be due to either the recognition of her unconscious oral-aggressive drives or the depression-withdrawal reaction that followed. The problems in using this method are outlined. (27 ref.)—*W. G. Shipman.*

5539. **Weiner, H., Singer, Margaret T., & Reiser, M. F.** (Walter Reed Hosp., Washington, D. C.) Cardiovascular responses and their psychological correlates: I. A study in healthy young adults and patients with peptic ulcer and hypertension. *Psychosom. Med.*, 1962, 24(5), 477-498.—Heart rate and blood pressure responses of 45 healthy young men and of 28 male duodenal ulcer cases and 31 male essential hypertension cases were studied when they were presented TAT Cards 2, 3GF, and 4. Responses occurred to the examiner and to telling the story; but not to seeing the card nor to the content of the story. Failure to interact with the E was always associated with physiological hyporeactivity. The essential hypertension cases were remarkably unreactive. "Acute changes in response to laboratory manipulations probably represent the effects of experimentally superimposed psychological situations which modify on-going processes rather than initiating discreet changes from a stable, nondynamic baseline state." (45 ref.)—*W. G. Shipman.*

5540. **Weiss, P., & Emmerich, W.** (U. Colorado) Dependency fantasy and group conformity in ulcer patients. *J. consult. Psychol.*, 1962, 26(1), 61-64.—Primary type ulcer patients write more dependency themes on TAT cards and show greater group conformity in the Asch situation than non-psychosomatics. They are more conforming but not more dependent in fantasy than nonulcer psychosomatics. TAT and Asch conformity are not related in psychosomatic groups.—*E. R. Oetting.*

5541. **Wenger, M. A., Clemens, T. L., & Cullen, T. D.** (U. California, Los Angeles) Autonomic functions in patients with gastrointestinal and dermatological disorders. *Psychosom. Med.*, 1962, 24(3), 267-273.—Ss were 100 hospitalized males (31 peptic ulcer, 36 gastritis, 17 neurodermatitis, 16 psoriasis or urticaria). During a 15-minute rest and a 1-minute cold-pressor test they were studied via heart rate, respiration rate, palmar conductance, finger pulse volume, systolic and diastolic blood pressures, and finger, face, and axillary temperatures. At rest their sympathetic nervous system was more active than that of healthy controls. With stress the neurodermatitis and the nonulcerative gastrointestinal patients had a greater increase in heart rate and less increase in diastolic blood pressure than did the normative group.—*W. G. Shipman.*

EPIDEMIOLOGY

5542. **Caravedo, Baltazar, & Valdivia, Oscar.** (Mental Health Dept., Lima, Peru) A study on mental health of a cross-section of industrial population. *Int. J. soc. Psychiat.*, 1961, 7(4), 269-282.—The purpose of the study was to assess the physical and mental health of a group of labor leaders and managers in Peru by employing the Cornell

Medical Index. Results show an appreciable amount of mental illness in these people. It is suggested that such illness is related to the strikes and stoppages so prevalent in Peru.—*R. M. Frumkin.*

5543. **Group for the Advancement of Psychiatry, Committee on Preventive Psychiatry.** Problems of estimating changes in frequency of mental disorders. *GAP Rep.*, 1961, No. 50, 469-521.—"Eleven illustrative disorders are studied . . . and an attempt is made to clarify the methodological problems in eliminating changes. There was at least some initial evidence that changes in frequency may have occurred in these disorders. The disorders include conversion hysteria, syphilitic psychoses, arteriosclerotic psychoses, psychoses associated with pellagra, deliria with pneumonia, alcoholic psychoses, cretinism, post encephalitic encephalopathy, bromide psychosis, neurocirculatory asthenia, and psychoneuroses with diffuse anxiety as the primary manifestation. Possible factors contributing to changes in frequency are discussed."—*C. T. Morgan.*

5544. **Pasamanick, Benjamin.** (Ohio State U.) A survey of mental disease in an urban population: VII. An approach to total prevalence by race. *Amer. J. Psychiat.*, 1962, 119(4), 299-305.—"This paper reported the results of a series of concurrent investigations in Baltimore dealing with the prevalence rates for various psychiatric disorders in the white and nonwhite population. The findings based on a community survey, and state, private and V.A. hospital rates indicate that the white population has the higher rates for the psychoses, psychoneuroses, and the psychophysiologic-autonomic-visceral disorders. Nonwhite rates are higher for the acute brain syndromes and for mental deficiency. An attempt is made to explain these variations and to refute the conclusions of a previous study by Wilson and Lantz in Virginia."—*N. H. Pronko.*

5545. **Sen, M. N., & Sunderaraj, N.** Statistical studies on hospitalized mental patients. *Pratibha*, 1959, 2(2), 51-64.—The incidence rates of mental symptoms of a selected group of 200 schizophrenics were analysed according to age and sex. Influence of age and sex on symptom-pattern was revealed. "The incidence rates of each mental symptom in different age and age-sex groups were subjected to chi-square analyses, and the significance of differences of their occurrence was established. These symptoms were: (a) anxiety, depression, paranoid ideas and apathy; (b) attention (not sustained), preoccupied, delusions of persecution, anxiety, depressions, suspicion, apathy and orientation."—*U. Pareek.*

5546. **Whittier, J. R., & Korenyi, C.** Selected characteristics of aged patients: A study of mental hospital admissions. *Comprehen. Psychiat.*, 1961, 2(2), 113-120.—"From a study of 540 male patients aged 60 and over admitted to a state mental hospital for the first time, it was concluded that the population was characterized by high incidence of individuals in pedigree with history of mental hospitalization (8%), neurological abnormality (27%), early mortality (50%), chronic alcoholism (20%), memory, judgment, orientation defects (83%), and depression (38%)."—*D. Prager.*

EDUCATIONAL PSYCHOLOGY

5547. Alpert, R. (Harvard) **Modifying personality in a school setting.** In G. Nielson (Ed.), *Proceedings of the XIV International Congress of Applied Psychology. Vol. 3. Child and education* (see 37: 4118). Pp. 124-138.—Ecological studies have shown how behavior is affected by the setting. School settings should be such that defined roles emerge. A program of education is suggested.—*B. T. Jensen.*
5548. Astin, Alexander W. (National Merit Scholarship Corp., Evanston, Ill.) **An empirical characterization of higher educational institutions.** *J. educ. Psychol.*, 1962, 53(5), 224-235.—A factor analysis of 33 major attributes of colleges was performed using a sample of 335 institutions. These attributes included traditional "type" characteristics (e.g., Religious vs. Nondenominational), financial resources, measures of faculty and student characteristics, and measures of college "environment." The 6 principal dimensions along which institutions appear to differ were identified as: Affluence (wealth), Size, Private (vs. Public), Masculinity (vs. Femininity), Realistic (Technical) Emphasis, and Homogeneity. Affluence, which accounted for the largest proportion of variance, had high loadings from measures of the college's financial resources, student quality, faculty quality, and certain environmental characteristics.—*Journal abstract.*
5549. Blair, Glenn M., Jones, R. Stewart, & Simpson, Ray H. (U. Illinois) **Educational psychology.** (2nd ed.) New York: Macmillan, 1962. xxiv, 678 p. \$7.00.—Continuing the aim and strength of the 1st edition, this revision represents an unusually complete, comprehensive, and functional treatment of educational psychology. In keeping with the tremendous growth of interest in education and the need for expert teaching and efficient teaching, this text has been written to supply the teaching profession with those facts, principles, and methods of procedure which have maximal usefulness in the classroom. The psychological laboratory, classroom, and clinical experience have all contributed to the material. The plan of the book presents the child as he progresses toward maturity, then shows the forces which influence changes in the child's learning and adjustment; it illustrates how the methods and tools of psychology can be used to evaluate and improve the effectiveness of the educational program, and finally, it discusses the psychological factors which influence the professional growth and mental health of the teacher. A deliberate effort has also been made to incorporate recent psychological research and theory illustrating these with actual classroom situations. Student activities and text related films close each chapter.—*P. D. Leedy.*
5550. Cook, Stuart. (Ed.) **Research plans formulated at the Research Planning Workshop on Religious and Character Education.** New York: Religious Education Association, 1961. viii, 310 p.—"For twelve days in August 1961, fifty-seven social scientists and religious educators worked together at Cornell University to develop plans for research they hoped to carry out in the near future." 50 research designs are presented under 10 general content areas. These include values, child rearing practices, personal philosophy, religious vocations, outcomes of programs of religious education, and willed decisions.—*W. A. Koppe.*
5551. Cotsonas, Nicholas J., Jr., & Kaiser, Henry F. (U. Illinois) **A factor analysis of students' and administrators' ratings of clinical teachers in a medical school.** *J. educ. Psychol.*, 1962, 53(5), 219-223.—This analysis of ratings of 21 clinical teachers of medicine by administrators and students revealed 3 major factors: (a) the teacher's attitude towards patients and students, (b) the instructor's use of various teaching techniques, and (c) a factor estimating a teacher's knowledge. Only the 1st 2 factors influenced student rankings, although an appreciation of the 3rd is indicated. The administrators, however, were influenced only by the 3rd. The present results resemble those of previous efforts to analyze conceptions of teacher effectiveness through factor analyses of ratings (see 35: 2808). To this extent, the concepts of affective and cognitive merit—coordinate with the affective and cognitive domains of the *Taxonomy of Educational Objectives* (Bloom, 1956)—are given added support.—*Journal abstract.*
5552. Cronbach, L. J. (U. Illinois) **Psychological issues pertinent to recent American curriculum reforms.** In G. Nielson (Ed.), *Proceedings of the XIV International Congress of Applied Psychology. Vol. 3. Child and education* (see 37: 4118). Pp. 139-152.—After discussing some of the new approaches as related to some psychological theory, the author says that his "message has been that psychological knowledge is inadequate to answer the questions now being posed by educational leaders. Part of the fault has been our over-confidence. We have failed to realize that traditional experimental designs made it impossible . . . to ask vital questions."—*B. T. Jensen.*
5553. Godin, André. (International Center Lumen Vitae, Brussels, Belgium) **Importance and difficulty of scientific research in religious education: The problem of the "criterion."** *Relig. Educ.*, 1962, 57(4, Res. Suppl.), 166-174.—An analysis of the difficulties encountered in the scientific study of religious growth by reason of inadequate criteria of evaluating such growth.—*S. A. Walters.*
5554. Hudson, W. **Pictorial perception and educational adaptation in Africa.** *Psychol. Afr.*, 1962, 9, 226-239.—The need for research into cross-cultural educational problems is discussed. The construction of a pictorial perceptual test is described. A comparison of the performance of white and Negro children on the test reveals that the Negro child is handicapped because he is culturally deprived. It is concluded that the existing educational system will need to be modified and adapted to benefit Negro children.—*J. L. Walker.*
5555. McConnell, T. R. **Conference summary.** In R. L. Sutherland, W. H. Holtzman, E. A. Koile, & B. K. Smith (Eds.), *Personality factors on the college campus: Review of a symposium* (see 37: 5621). Pp. 111-116.—In summarizing a symposium on college personality factors, 2 main themes emerge: (a) the outcomes of college education should be redefined and (b) education is not only intellectual, but a full development of the person fully. Bureaus of institutional research are of fundamental importance.—*R. Tyson.*

5556. Page, Ellis Batten. (U. Connecticut) Behavioral theory, verbal magic, and education. *Educ. Theory*, 1962, 12(2), 73-78.—The role of behavioral theory in education is examined, with particular attention to the problem of punishment as studied in psychological laboratories and applied in school settings. Inappropriate generalizations are seen to result from verbal magic, the identification of conditions, and principles with the words describing these.—*Author abstract*.

5557. Parkes, J. Carter. Impact of an experimental curriculum upon students at Austin College. In R. L. Sutherland, W. H. Holtzman, E. A. Koile, & B. K. Smith (Eds.), *Personality factors on the college campus: Review of a symposium* (see 37: 5621). Pp. 136-142.—An introduction is supplied for Austin College's evaluation of its curriculum. The program consists of analysis of its impact on faculty and students as well as assessment of changes on the part of individual students.—*R. Tyson*.

SCHOOL LEARNING

5558. Bogojawlensky, D. N. Nauczanie sposobów pracy umysłowej jako metoda rozwijania myślenia uczniów i aktywizacji uczenia się. [Teaching effective study methods as a way of developing pupils' thinking and of activating their learning.] *Psychol. Wych.*, 1962, 5(2), 133-143.—Proper study techniques rather than problem solving situations or motivation are key factors in enhancing self-learning. An outline of study techniques is presented.—*H. Kaczkowski*.

5559. Conde, Le Roy. An experiment in second-language instruction of beginning Indian children. *N. Mex. Soc. Stud. Educ. educ. res. Bull.*, 1962, No. 1, 8-11.—7 teachers of Indian pupils in 4 New Mexico public schools were involved in a series of enrichment methods: tape recorders, pictures, games, etc. Most of these teachers obtained higher pupil gains than they had during the preceding year, thus validating the notion of involving teachers in in-service programs.—*J. G. Cooper*.

5560. Christensen, C. M. (U. Alberta) A note on "Dogmatism and Learning." *J. abnorm. soc. Psychol.*, 1963, 66(1), 75-76.—In a study of dogmatism and learning with a sample of 166 students in an introductory psychology course, no confirmation was found of Ehrlich's findings (see 36: 3KB48E) that the Dogmatism Scale predicts classroom learning. There was positive support, however, for previous findings for the independence of aptitude and dogmatism.—*Journal abstract*.

5561. de Ajuriaguerra, J., & Auzias, H. Methodes et techniques d'apprentissage de l'écriture [Methods and techniques of learning to write.] *Psychiat. Enfant*, 1960, 3(2), 609-718.—Writing difficulties (dysgraphia) often represent a major problem. In order to understand the nature and extent of the dysgraphia, it is necessary to have a knowledge of the methods used in teaching writing. An analysis of these methods, a review of the literature, and the findings of a questionnaire are presented. The methods are evaluated in terms of (a) the comparative value of the technique used and (b) what writing means to the child according to his age and psychomotor abilities. The problems of the lefthanded child are dealt with in some detail.—*R. Naar*.

5562. Hendrickson, Lois N., & Muehl, Siegm. (Iowa Child Welfare Research Station) The effect of attention and motor response pretraining on learning to discriminate B and D in kindergarten children. *J. educ. Psychol.*, 1962, 53(5), 236-241.—This study compared 3 groups of kindergarten children (49 Ss in all) in learning names for the letters "b" and "d." An Attention-Consistent Motor (A-CM) group received pretraining in attending to the directional difference between the letters and making consistent motor responses to each letter. An Attention-Inconsistent Motor (A-IM) group received similar attention pretraining, but made inconsistent motor responses to each letter. An Irrelevant-Control (Ir-C) group received attention and motor response pretraining to color stimuli. Performance of the 3 groups on the letter-naming transfer task showed the 2 attention groups superior to the control group. No significant performance differences were associated with the motor response variable.—*Journal abstract*.

5563. Lewicki, A. Psychologiczna analiza czynników wyznaczających wyniki nauczania. [Psychological analysis of factors determining the results of school teaching.] *Psychol. Wych.*, 1962, 5(2), 144-167.—The principle aspects involved in effective classroom learning are divided into external and internal factors. These factors were utilized in the development of a set of "rules" to be employed by teachers to increase the rate of learning in the classroom.—*H. Kaczkowski*.

5564. Miles, Josephine. (U. California, Berkeley) The use of reason. *Teachers Coll. Rec.*, 1962, 63(7), 540-547.—"When a man reasons, he sets up a provisional expectation, then he checks it against the evidence pro and con, then he reformulates it in a form strengthened by what he had discovered or called to mind." Suggestions are given for promoting this process through the various school subjects.—*H. K. Moore*.

5565. Nakadake, Osamaro. (Osaka Prefectural Inst. Educational Research) [A methodological study concerning an analysis of the learning mechanism: III. Analysis of readiness and relevance in learning.] *Jap. J. educ. Psychol.*, 1962, 10(2), 99-106.

5566. Pressey, S. L. (Ohio State U.) Educational acceleration: Occasional procedure or major issue? *Personnel Guid. J.*, 1962, 41(1), 12-17.—Research evidence is overwhelmingly in favor of acceleration through the present school structure. More education within a given time may result together with increase in functioning abilities.—*S. Kavruck*.

5567. Sessions, Frank Q., & Carruth, Max L. (U. Utah) Student performance in morning and afternoon classes. *Personnel Guid. J.*, 1962, 41(2), 144-146.—No significant difference was found with respect to academic performance of students assigned to morning or to afternoon English classes. It is concluded that when type of instruction and course content are held constant for both mornings and afternoons, the class hour itself has no significant effect on student performance.—*S. Kavruck*.

5568. Usova, A. P. Obuchenie v detskom sadu. [Teaching in the kindergarten.] *Izv. Akad. Pedag. Nauk RSFSR*, 1961, No. 118. 132 p.—The author

reports on the results of her research on teaching in the kindergarten. She considers the role of teaching in the educational work of kindergarten and age differences in the learning of the young child.—*I. D. London.*

5569. Wall, W D., & Miller, K. M. (National Found. Educational Research, London, England) **Motivation and counter-motivation.** In G. Nielson (Ed.), *Proceedings of the XIV International Congress of Applied Psychology. Vol. 3. Child and education* (see 37: 4118). Pp. 161-175.—A report of several studies of effects of parental interest, teacher attitude, anxiety, and pupil attitude on learning. (17 ref.)—*B. T. Jensen.*

INSTRUCTIONAL AIDS

5570. Coulson, John E., Estavan, Donald P., Melaragno, Ralph J., & Silberman, Harry F. (System Development Corp., Santa Monica, Calif.) **Effects of branching in a computer controlled autoinstructional device.** *J. appl. Psychol.*, 1962, 46(6), 389-392.—2 groups of 15 high school Ss received instruction in logic from a computer controlled autoinstructional device. In 1 group all Ss received a fixed sequence of 233 items. In the 2nd group each of the Ss received a different number and sequence of items, depending on the S's performance during the lesson. Branching decisions were based on errors and on the S's evaluation of his own readiness to advance to new topics. Posttest scores were significantly higher (.05 level) for the branching group than for the fixed sequence group; training time differences were not significant.—*Journal abstract.*

5571. Coulson, John E., & Silberman, Harry F. (System Development Corp., Santa Monica, Calif.) **Automated teaching and individual differences.** *Audiovis. Commun. Rev.*, 1961, 9(1), 5-15.—A summary of research on automated teaching completed and planned at System Development Corporation.—*R. E. Schutz.*

5572. Eigen, Lewis D. (Cent. Programed Instruction) **A comparison of 3 modes of presenting a programmed instruction sequence.** *J. educ. Res.*, 1962, 55(9), 453-460.—77 8th graders with mean IQ of 118 were assigned to machine, horizontal-text, and vertical-text modes of presentation. The 65-frame program used was designed to teach differences between numbers and numerals. 2 major findings evolve. Inter-mode differences in learning are not statistically significant. Ss using the programmed texts complete the program in less time, although not significantly so, than do Ss who use the machines.—*F. Goldsmith.*

5573. Evans, James L., Homme, Lloyd E., & Glaser, Robert. (U. Pittsburgh) **The Ruleg system for the construction of programmed verbal learning sequences.** *J. educ. Res.*, 1962, 55(9), 513-518.—The authors suggest a "Ruleg system" in which material to be programmed is broken down into "rules" and "examples" in terms of the desired outcome, carefully ordered, assembled into frames, tested, and revised. In programming work the Ruleg System has been found to be a helpful prompting system and is an improvement over a more artistic manipulation of the subject matter. It also provides a way of communicating to others in an operational fashion,

one of the ways in which program construction can be carried out.—*F. Goldsmith.*

5574. Follett, Joseph F. **Effects of training response mode, test form, and measure on acquisition of semi-ordered factual materials.** *HumRRORes. Bull.*, 1961, No. 24. ix, 62 p.—Studies indicate equal effectiveness of live and taped lectures, superiority of read over heard material, self-paced over class-paced reading, and plain over scrambled-book format. Recognition tests could be substituted for recall-form tests.—*R. Tyson.*

5575. Hartman, Frank R. (Pennsylvania State U.) **Recognition learning under multiple channel presentation and testing conditions.** *Audiovis. Commun. Rev.*, 1961, 9(1), 24-43.—A comparison of the teaching effectiveness of color and monochrome television instruction. 15 different lessons were shown to matched groups of military trainees in either black-and-white or color. Analyses of results on multiple choice achievement tests taken immediately after instruction "provide no evidence that a significant difference in training effectiveness exists."—*R. E. Schutz.*

5576. Hilgard, Ernest R. **Teaching machines and learning theory.** In R. E. Sutherland, W. H. Holtzman, E. A. Koile, & B. K. Smith (Eds.), *Personality factors on the college campus: Review of symposium* (see 37: 5621). Pp. 63-67.—Teaching machines respect differential learning rates, provide knowledge of results, keep the learner active, let the learner "prompt" instead of learn by rote. They cannot replace laboratories, discussions, libraries, and other aspects of a full program. A teacher can adjust to the "unique personality of the learner."—*R. Tyson.*

5577. Kopstein, Felix F., & Shillestad, Isabel J. **A survey of auto-instructional devices.** *USAF ASD tech. Rep.*, 1961, No. 61-414. vii, 119 p.—This report summarizes the state of the art of auto-instruction and teaching devices and catalogs instructional devices to April 1961, in the interest of suggesting possible applications to local training or educational problems. The 1st section briefly reviews what auto-instruction is, whether it is an entirely new concept, its practical benefits, auto-instruction terminology, programs and devices, current programming formats, evaluating a program, and discusses prospects for the future of auto-instruction. The 2nd section catalogs and describes all major current auto-instructional devices: Skinner machines, Pressey machines, Crowder technique, self-organizing systems, audio-visual machines, digital computers as teaching machines, and miscellaneous devices. A list of teaching machine patents is appended.—*USAF ASD.*

5578. Krumboltz, J. D., & Weisman, R. G. (Stanford U.) **The effect of intermittent confirmation in programed instruction.** *J. educ. Psychol.*, 1962, 53(6), 250-253.—The effect of intermittent confirmation was tested on 121 students by omitting various patterns of confirming answers from a programed textbook on educational measurement. The schedules included 4 levels of fixed-ratio confirmation and 2 of variable-ratio confirmation. Results based on criterion measures consisting of errors made on the program and performance on a posttest indicated: a negative linear relationship between the number of errors made on the program and the percentage of confirmation provided, no significant ef-

fects on the posttest from the various proportions of confirmation, and no evidence of differential effect between fixed-ratio and variable-ratio confirmation on either criterion.—*Journal abstract.*

5579. Lambert, Philip; Miller, Donald M., & Wiley, David E. (U. Wisconsin) **Experimental folklore and experimentation: The study of programmed learning in the Wauwatosa public schools.** *J. educ. Res.*, 1962, 55(9), 485-491.—The Ss for this experiment were 552 9th-grade pupils who worked without help through a programmed unit in mathematics. The most significant factor associated with immediate acquisition of the programmed material was intelligence. Furthermore, they found that the covert response method took significantly less time for completion without a corresponding decrease on the immediate-retention test.—*F. Goldsmith.*

5580. McCrystal, Thomas J. **Programmed instruction: A plan of research.** *HumRRO res. Bull.*, 1961, No. 25. iv, 44 p.—The concise summary deals with a 1960 program for more efficient programmed learning of verbal materials. Self-instructional methods, programs, and devices were assessed. Presumably relevant variables and suitable research apparatus are described.—*R. Tyson.*

5581. Mager, Robert F., & Whitmore, Paul G. **Results of exploratory investigations conducted for the purpose of planning a research program on instructional methods.** *HumRRO res. Memo.*, 1961, Subtask Textstruct I. iv, 40 p.—The broad problem of military instruction is examined, and its highlights are identified. Aspects considered are the technique for securing class responses during instruction, automation, specifying training objectives, programing, and the evaluation and motivation of students.—*R. Tyson.*

5582. Melching, William H. **A procedural guide to the programming of instruction: Preliminary report.** *HumRRO res. Memo.*, 1962, Subtask Textstruct II. 34 p.—The prospective programmer is offered an outline covering definitions, desirable characteristics of the programmer, procedures, objectives, development of a criterion test, preparation of a program, preliminary administration, try-out, review, and revision.—*R. Tyson.*

5583. Melching, William H., Cox, John A., Rupe, Jesse C., & Smith, Robert G., Jr. **The text of an orientation workshop in automated instruction.** *HumRRO consult. Rep.*, 1962, Subtask Textstruct II. vi, 79 p.—Orientation on teaching machines and automated instruction as presented at Fort Bliss and Fort Monroe in 1962 are summarized. The nature, advantages, problems, and applications of programmed teaching are outlined; and the evaluation of program proposals is discussed. (Brief glossary of terms, 6 photographic illustrations)—*R. Tyson.*

5584. Norberg, Kenneth. (Ed.) (Sacramento State Coll.) **Perception theory and AV education.** *Audiovis. commun. Rev.*, 1962, 10(5), 1-108.—This issue contains "4 papers . . . which reflect contrasting assumptions and widely divergent interests within the common field investigation": R. Arnheim, "What Do the Eyes Contribute?" J. Hochberg, "The Psychophysics of Pictorial Perception"; H. Toch and M.S. MacLean, Jr., "Perception, Communication, and Educational Research: A transactional View";

and F. Fearing, "Human Communication."—*R. E. Schutz.*

5585. Rabinowitz, William; & Mitzel, Harold E. (City U. New York) **Programing in education and teacher preparation.** *Teachers Coll. Rec.*, 1962, 64(2), 128-138.—Teachers need to be taught how to prepare programs as well as to use teaching machines.—*H. K. Moore.*

5586. Rosenstein, Alvin J., & Kanner, Joseph H. (Army Pictorial Center, Long Island) **Television and army training: Color vs. black and white.** *Audiovis. Commun. Rev.*, 1961, 9(1), 44-49.—25 portraits were each paired with a common name. In 3 experiments these stimuli were presented to groups of college students "simultaneously by all possible combinations of audio, pictorial, and print channels and subsequently tested on the same variations." Analyses of variance indicated that simultaneous presentation of pictorial and verbal information produced interference. Simultaneous audio and printed presentation of verbal information was more effective than either alone.—*R. E. Schutz.*

5587. Silverman, Robert E., & Cohen, Ira S. (New York U.) **A workshop in programmed instruction and programing.** *Psychol. Rep.*, 1962, 10, 719-730.—A description of an intensive 2-week course in programing given to 6 teachers and 6 editorial personnel. The writers conclude from evaluation of programs produced and reactions of participants that "workshops of this nature are feasible and that many if not all teachers can be trained in the rudiments of programmed instruction in comparatively short periods of time if the training is sufficiently intense."—*B. J. House.*

5588. Smith, Norman H. (USAF Academy, Colorado Springs) **The teaching of elementary statistics by the conventional classroom method versus the method of programmed instruction.** *J. educ. Res.*, 1962, 55(9), 417-420.—The Ss were 128 freshman cadets divided in 2 groups, one by the conventional method, the 2nd, by programmed instruction. Neither method of teaching produced better learning. The study indicated that the time required to achieve this learning can be reduced through the application of programmed instruction. The students being taught by this method responded favorably, considered it more efficient, and felt that they had more opportunity to receive individual assistance from the teacher than under more conventional methods.—*F. Goldsmith.*

5589. Smith, Robert G., Jr. **Teaching machines and programmed instruction: Some factors to consider in implementation.** *HumRRO res. Memo.*, 1961, Subtask Textstruct II. 25 p.—An introduction to automated instruction deals with objectives and techniques of programing, costs, standards, administration, and practical suggestions for initiating the process. The 81-page appendix offers sample programs and references.—*R. Tyson.*

5590. Stolurow, L. M., & Walker, C. C. (U. Illinois) **A comparison of overt and covert response in programmed learning.** *J. educ. Res.*, 1962, 55(9), 421-429.—2 groups, a total of 56 Ss, worked through a standard programmed learning test, one group responding overtly (writing), the other covertly (thinking). No reliable differences in learning or retention measures were found. Mean times to

complete the program differed significantly. The covert response group required less time. These data suggest that learning can be more efficient with a covert-response method. (30 ref.)—*F. Goldsmith.*

5591. **Stolurrow, Lawrence M.** (U. Illinois) **Implications of current research and future trends.** *J. educ. Res.*, 1962, 55(9), 519-527.—The author makes the following predictions: Auto-instructional methods and devices are here to stay, teachers will come to grasp their potentialities, and the comparative study of live versus automated teaching will cease. Future research will concern itself with discovering the important characteristics of materials and methods, and this will lead to a theory of teaching. Basic changes in our thinking about what a course is will take place, and courses will be revised as a result of new insights. Research will demonstrate the importance of sequence factors. The devices of the future will be either books or computer-based machines, small devices will drop out. There will emerge a new form of dynamic individualized programming that will be capable of aiding persons to solve problems. (15 ref.)—*F. Goldsmith.*

5592. **Ugelow, Alvin.** **Motivation and the automation of training: A literature review.** *USAF MRL tech. docum. Rep.*, 1962, No. 62-15. iv, 30 p.—Controlling the motivation of learners in their continuing use of the new auto-instructional devices could become a serious problem, since neither the devices themselves nor the performance knowledge they provide seems to maintain extended participation in the instruction. A selective review of the literature on knowledge of results, praise and reproof, competition task interruption, and readability suggests techniques for better controlling such participation. Potentially useful applications are discussed, and limited try-out of variations, both within the program and instructional environment, is encouraged.—*USAF MRL.*

5593. **Wohlwill, Joachim F.** (Clark U.) **The teaching machine: Psychology's new hobby horse.** *Teachers Coll. Rec.*, 1962, 64(2), 139-146.—Criticisms of present work on teaching machines include: (a) its theoretical foundation, (b) the adequacy of this approach in light of learning process, and (c) the narrowness of views of educational process and educational philosophy involved.—*H. K. Moore.*

ATTITUDES & ADJUSTMENT

5594. **Anderson, R. C.** (Harvard U.) **Failure imagery in the fantasy of eighth graders as a function of three conditions of induced arousal.** *J. educ. Psychol.*, 1962, 53(6), 293-298.—An experiment was conducted in which 3 groups of 8th graders (total N = 143) completed a projective test under conditions of low-arousal medium-arousal, and high-arousal respectively. Fear of Failure (f Failure), as well as n Achievement, significantly discriminated the 3 conditions of induced arousal during projective testing. The medium-arousal group rather than the high-arousal group yielded the highest mean f Failure. It was argued that negative results in past research on f Failure may have resulted from anxiety-provoked repression of failure imagery under high-arousal conditions.—*Journal abstract.*

5595. **Astin, A. W.** (National Merit Scholarship Corp., Evanston, Ill.) **Influences on the student's motivation to seek advanced training: Another**

look. *J. educ. Psychol.*, 1962, 53(6), 303-309.—A recent study (see 37: 1939), in which certain college "presses" were interpreted as influencing the student's motivation for advanced training, was re-examined. The method used for controlling the student's initial educational level of aspiration—the analysis of covariance—was thought to be inappropriate, primarily because of anomalies in the correlation between initial and final levels of aspiration. In addition, the estimate of initial level of aspiration, which had been obtained retrospectively from the Ss, was judged to be too undependable for use as a measure of initial level of aspiration. Reanalyses of some of the data failed to support the author's original conclusions about the "effects" of the press on student motivation. Certain methodological problems in studying the influence of college environments on the student were discussed.—*Journal abstract.*

5596. **Blumenfeld, W. S., Franklin, R. D., & Memmers, H. H.** **Youth's attitudes toward civil defense, fallout shelters, and homework.** *Purdue Opin. Panel Poll Rep.*, 1962, No. 65. 39 p.—A questionnaire was administered to a nationally representative sample of high school students in January 1962. The purpose of the pool was to collect information with which to investigate (a) civil defense and fallout shelters and (b) homework and selected teenage values. In reply to "better Red than dead," 27% preferred Red; 71%, dead. 60% of the families had thought about building a shelter but had made no decision. 28% thought it was a good thing for humanity when the atomic bomb was made; 38% thought it was not. 21% thought the United States should spend as much money for medical research as for atomic research; 6% did not. 76% of the students said as much money should be spent for educational research as for atomic research. 21% thought the United States should resume nuclear testing in the air, 48%, underground. 58% thought the building of shelters would make nuclear war more probable. 55% agreed that an attack on the United States would be nuclear, and another 15% said they probably held this view. 37% thought that the possibility of another war was likely; 1%, unlikely; 43% felt there was a 50-50 chance. 42% spent from 1 to 2 hours a day on homework outside of school; 22% spent more than 2 hours. 58% thought that they should spend 1-2 hours; 16%, more than 2 hours. In order of frequency of mention, the things most seriously thought about by students were: plans after school (56%); vocational plans after finishing education (44%); clothes, dress, and appearance (43%); what to think and believe and what is important in life (39%); how to get along with others (31%); homework (27%); social affairs (26%); past experiences (22%); good conduct (22%); TV, sports, musical, or movie stars (20%). 26 pages of tables show frequencies for sex, grade, income, mothers' education, and other variables.—*W. A. Koppe.*

5597. **Brock, Timothy C., & Del Giudice, Carolyn.** (Iowa State U.) **Stealing and temporal orientation.** *J. abnorm. soc. Psychol.*, 1963, 66(1), 91-94.—120 elementary school pupils in a lower-class neighborhood were tested in a situation providing for measures of the occurrence and magnitude of a form of psychopathic behavior (stealing) and of temporal orientation. The 49 Ss who stole money from the E during her brief absence chose fewer temporal con-

cepts and told stories with shorter time durations than the nonstealers. This relationship between stealing and time orientation was uninfluenced by race, sex, age, IQ, academic achievement, or school and home behavior problems.—*Journal abstract.*

5598. Chhiber, K. K. (Chandigarh, India) Secondary school pupils' attitude towards English. *U. Rajasthan Stud. (Educ.)*, 1960, 4, 35-62.—A Thurstone type scale for measuring attitudes (containing 50 items) was standardized. Test-retest reliability was .84. The average Q-value of the items was 1.15; scale values ranged from 8.4 to 0.5. 135 students from 2 secondary schools were given the scale. Students from the progressive multipurpose school showed more favorable attitudes than those from the traditional high school. High positive correlations existed between attitude and attainment.—*U. Pareek.*

5599. Dave, Inder. (Vidyabhan Teachers Coll., Udaipur, India) Measurement of interests. *U. Rajasthan Stud. (Educ.)*, 1960, 4, 63-87.—An instrument (called Ruchi Nidarshaka) was standardized on the lines of the Thurstone Interest Schedule to measure interest of secondary school pupils. 7 interest groups are in the schedule: humanitarian, scientific, technical, commercial, agricultural, fine arts, and home science. It was administered to 97 delta class students. The technical group was the most preferred for boys and the home science group for the girls. The form, in Hindi, appears in the appendix.—*U. Pareek.*

5600. Hassan, Abdel-bassit M. (El-Santa Garbiah, Egypt) Attitudes of America-educated foreign students toward American democratic orientation. *J. soc. Psychol.*, 1962, 57(2), 265-275.—The purpose of the study was to investigate the attitudes of foreign students toward American democratic ideals as carried out by most people in the United States, and to examine the conditions under which they develop their attitudes. The findings of the study indicate that the American educational experience does not ipso facto produce in the foreign student a favorable attitude toward the host culture. Unfavorable attitudes toward the United States can be expected when the foreign student encounters unfavorable experiences through his interaction with Americans and when he is dissatisfied with his academic and social life in the United States.—*Author abstract.*

5601. Hatano, Giyoo. (U. Tokyo) [Q-technique study of parental attitudes toward education.] *Jap. J. educ. Psychol.*, 1962, 10(1), 20-29.—"From analysis of variance of each subject's Q-sort and a factor analysis of the correlation matrix between Q-sorts, the following results were shown: . . . they generally had high loadings on the second factor—that of common-sense viewpoint of education. . . . The attitudes of educational researchers and school teachers were, to the contrary, markedly progressive."—*C. T. Morgan.*

5602. Heilbrun, Alfred B. (U. Iowa) Parental identification and college adjustment. *Psychol. Rep.*, 1962, 10, 853-854.—"Analysis of descriptive ratings supports the hypothesis that higher identification with the father is associated with better adjustment for college males ($N=36$) and, more tentatively, higher identification with the mother is

associated with poorer adjustment for college females ($N=37$)."—*B. J. House.*

5603. Husek, T. R., & Wittrock, M. C. (U. California Los Angeles) The dimensions of attitudes toward teachers as measured by the Semantic Differential. *J. educ. Psychol.*, 1962, 53(5), 209-213.—To investigate the dimensionality of attitudes of education students toward teachers, a form of the Semantic Differential was administered to 259 Ss in an educational psychology course. 1 concept (school teachers) was rated on each of 117 scales. A factor analysis was performed on the resulting data. A large factor of general Evaluation was obtained, and this factor included such attributes as potency and activity—attributes which have often defined their own factors. Other factors, including ones tentatively labeled as Restraint, Tenacity, Predictability, and Stability were also obtained and discussed.—*Journal abstract.*

5604. Johannesson, I. Effects of praise and blame upon achievement and attitudes of school children. In G. Nielson (Ed.), *Proceedings of the XIV International Congress of Applied Psychology, Vol. 3. Child and education* (see 37: 4118). Pp. 184-197.—41 classes in Stockholm (4th form) were placed in 5 groups and treated as follows: (a) praised; (b) blamed; (c) praised after 3 tests, blamed before the last test; (d) blamed after 3 tests, praised before the last; and (e) neither praised nor blamed. Pupils also rated own performance and level of anxiety. Performance was influenced by praise or blame, the effect depending upon the combination. No significant differences in anxiety nor attitude toward teacher were found.—*B. T. Jensen.*

5605. Johannesson, Ingvar. Effekter av omgruppering av elever efter sociometrisk val. [The effects of regrouping pupils according to sociometric choices.] *Pedag. Forsk.*, 1962, No. 1, 1-48.—The influence of different forms of choice realization on variation and stability in pupils' choices at repeated sociometric measurements was investigated. 3 degrees of choice realization were employed: (a) maximum realization of the students' positive choices, whereby those with the highest positive preference got the opportunity of working together; (b) minimum realization of the positive choices, whereby those with indifferent feelings toward one another were assigned to work together; and (c) nonrealization, i.e., no restructuring of the class took place. The findings lend "support to the theory that a realization of the pupils' choices through different forms of group formation increases their experiences of their companions and sharpens their social evaluation of each other. However, a regrouping . . . is not enough . . . to bridge oppositions and affect more positive relations. For this . . . guidance and active social education are required." (English summary)—*L. Goldberger.*

5606. Jones, J. B. Some personal-social factors contributing to academic failure at Texas Southern University. In R. L. Sutherland, W. H. Holtzman, E. A. Koile, & B. K. Smith (Eds.), *Personality factors on the college campus: Review of a symposium* (see 37: 5621). Pp. 135-136.—Students matched in tested mental ability, but earning either poor or good grades revealed personality differences. Poor students are more careless, less self-critical, have lower

grade aspirations, and show other significant variations.—*R. Tyson.*

5607. Kishida, Motomi. (Tokushima U.) [Studies of human relations between pupils and teachers.] *Jap. J. educ. Psychol.*, 1962, 10(1), 1-10.—"The relation between pupils' attitudes toward teachers and their attitudes toward school was one of a close correlation, as denoted by a coefficient of correlation which is statistically significant. Thus it was found that the more pupils formed an intimate attachment for their teachers the more they came to like school."—*C. T. Morgan.*

5608. Laponska, R. O stosunkach społecznych między dziewczętami i chłopcami w klasach koedukacyjnych. [Social relations between boys and girls in coeducational classes.] *Psychol. Wych.*, 1962, 5(1), 20-31.—An analysis of 487 essays written by boys and girls between the ages of 13-20 showed that pupils' attitudes toward one another changed during high school. Separatism, antagonism, and egoism disappear but tend to be replaced by cliques. The impact of the latter development on classroom procedures is discussed.—*H. Kaczkowski.*

5609. McConnell, T. R. Differences in student attitudes toward civil liberties. In R. L. Sutherland, W. H. Holtzman, E. A. Koile, & B. K. Smith (Eds.), *Personality factors on the college campus: Review of a symposium* (see 37: 5621). Pp. 29-42.—Studies reveal the extent and nature of the mutual influence of the college and its students. Colleges and student bodies differ widely, and this fact influences the resulting interrelationships.—*R. Tyson.*

5610. Mechanic, David. Students under stress: A study of the social psychology of adaptation. New York: Free Press Glencoe, 1962. vi, 231 p. \$5.00.—A study of the "social dimensions of stress" in an American university. Ss were a group of graduate students. Stress situation consisted of doctoral examinations. Study deals with social interactions of these students during the stress period, their stress-adaptation mechanisms, and their reactions to success and failure. Author reviews the contributions of various scientific disciplines to the concept of stress and concludes that stress can best be understood within the framework of group interaction and influence.—*N. G. Burton.*

5611. Melikian, Levon H. (American U., Beirut, Lebanon) Self disclosure among university students in the Middle East. *J. soc. Psychol.*, 1962, 57(2), 257-263.—Jourard's "Self-Disclosure" questionnaire was adopted and given to 158 male students at the American University of Beirut. The Ss came from Afghanistan, Ethiopia, Greece, Iran, Jordan, Lebanon, Pakistan, and Sudan. Analysis of the results showed the following: (a) no significant difference was found between the 9 groups in self disclosure either to the target persons or in the different aspects of self being disclosed, (b) differences between the different target persons for all Ss and between the different aspects of self disclosure was found, (c) the 6 aspects of self disclosure formed a high and a low cluster similar to Jourard's, (d) the probability that the extent of self disclosure to the target persons was culturally determined was also indicated.—*Author abstract.*

5612. Newcomb, Theodore M. Student peer-group influence and intellectual outcomes of col-

lege experience. In R. L. Sutherland, W. H. Holtzman, E. A. Koile, & B. K. Smith (Eds.), *Personality factors on the college campus: Review of a symposium* (see 37: 5621). Pp. 69-91.—Social-psychological impacts, apart from intellectual development, are increasing on the campus. Large peer groups with sufficient internal variation are desirable. Living arrangements should foster daily contacts. The formal college unit and the living unit should overlap.—*R. Tyson.*

5613. Pace, C. Robert. Implications of differences in campus atmosphere for evaluation and planning of college programs. In R. L. Sutherland, W. H. Holtzman, E. A. Koile, & B. K. Smith (Eds.), *Personality factors on the college campus: Review of a symposium* (see 37: 5621). Pp. 43-61.—Studies involving the College Characteristics Index and the Activities Index lead to 2 conclusions: "To the extent that a college environment is an unrelated assortment of policies and practices and events and features, its influence upon the student is probably small," whereas to the extent that it is "a culture . . . its influence upon the student is probably large."—*R. Tyson.*

5614. Peck, Robert F. Student mental health: The range of personality patterns in a college population. In R. L. Sutherland, W. H. Holtzman, E. A. Koile, & B. K. Smith (Eds.), *Personality factors on the college campus: Review of a symposium* (see 37: 5621). Pp. 161-199.—Intensive female case studies form the basis for an attempt to identify and describe personality patterns in terms of mental health, variety of patterns, and implications. More adequate education requires intensified student guidance and identification of suitable teachers with techniques employed by business and government. (9 case descriptions)—*R. Tyson.*

5615. Phillips, B. N. (U. Texas) Sex, social class, and anxiety as sources of variation in school achievement. *J. educ. Psychol.*, 1962, 53(6), 316-322.—The hypothesis that social class interacts with sex and anxiety to produce differences in school achievement was tested utilizing a sample of 759 adolescents classified into 8 subsamples involving 2 levels of anxiety and social class, and both sexes. 8 measures of school achievement were employed, including standardized tests and teacher grades. The results supported 2 major findings of previous research: females had higher anxiety scores than males, and highly anxious Ss had lower achievement and intelligence scores. Both 1st and 2nd order interactions between sex, social class, and anxiety were found. Difficulties were encountered in integrating these findings into anxiety theory, and certain proposals are offered to accomplish this.—*Journal abstract.*

5616. Pinckney, G. A. (U. Nebraska) Changes in student teachers' attitudes toward childhood behavior problems. *J. educ. Psychol.*, 1962, 53(6), 275-278.—To determine the extent to which a course influences attitudes, 203 students in introductory educational psychology ranked 32 childhood behavior traits on the basis of seriousness. Rankings were made during the 1st and last week of classes, and changes in rank order were analyzed and compared with those of a control group of peers and with the rankings of clinicians in a study done a decade earlier. Precourse rankings of the control and experimental

groups were not reliably correlated with the 1951 clinicians. On postcourse rankings the correlation between the control group and clinicians remained insignificant while the correlation between the clinicians and the experimental group was highly reliable, suggesting that courses can change attitudes.—*Journal abstract.*

5617. **Purdue Opinion Panel.** Youth's attitudes toward the Peace Corps, national security, and education. *Purdue Opin. Panel Poll Rep.*, 1961, No. 63. 29 p.—"This report presents the results for a nationally representative sample of high school students . . . taken during the school year 1960-61. . . . The purpose of the study was threefold. 1) To determine some of the correlates of achievement in English. 2) To obtain national norms for the two forms of the test. 3) To measure teenagers' attitudes toward the following: a) The Peace Corps and national security. b) Plans after high school. c) High school courses and plan of study. d) Reading. e) Educational materials." Youth were found to be very favorable toward the Peace Corps and to value education. Among other things, higher English achievement scores were associated with mother's education; definite plans to go to college; liking mathematics, science, and English; expecting English to be important; owning or having at home more books, magazines, and newspapers; and having a mother who doesn't spend much time reading.—*W. A. Koppe.*

5618. **Putney, S., & Middleton, R.** (San Jose State Coll.) Some factors associated with student acceptance or rejection of war. *Amer. sociol. Rev.*, 1962, 27(5), 655-667.—"During the early 1960's increased concern with the possibility of war led some to reject war as an instrument of national policy and others to attempt to make nuclear war a credible instrument of national policy. This exploratory study attempts to estimate the extent of antiwar sentiment among American college students, and to determine factors which are associated with acceptance or rejection of war. A questionnaire, including three scales measuring acceptance of war was administered to approximately 1,200 students in sixteen colleges and universities across the United States. Males were found far more likely to accept war than females. Residents of the Far West, political liberals, male nonconformists, and those who believe meaningful victory is impossible in a nuclear war were generally less disposed to accept war than their counterparts. In general, however, acceptance of war was found to be positively associated with interest and involvement in modern society, with knowledge and realism concerning nuclear war, and with a sense that war is probable."—*L. Berkowitz.*

5619. **Sanford, Nevitt.** Implications of personality studies for curriculum and personnel planning. In R. L. Sutherland, W. H. Holtzman, E. A. Koile, & B. K. Smith (Eds.), *Personality factors on the college campus: Review of a symposium* (see 37: 5621). Pp. 3-28.—"The liberal college curriculum should further the individual's development by increasing his 'self-control, self-understanding, self-development.' Basic liberal studies offer the most to personality development, the aim of liberal education."—*R. Tyson.*

5620. **Shoben, Edward Joseph, Jr.** Potency in the schools. *Teachers Coll. Rec.*, 1962, 63(7), 548-

550.—"There is no evidence that schools or colleges in general have much if any effect on attitudes, values, and other nonintellective factors. It is, however, hypothesized that some individual schools do because of (a) intimacy of contacts with older students and teachers and (b) the effects of the extent to which the school represents a community to the child."—*H. K. Moore.*

5621. **Sutherland, Robert L., Holtzman, Wayne H., Koile, Earl A., & Smith, Bert Kruger.** (Eds.) *Personality factors on the college campus: Review of a symposium.* Austin, Tex.: Hogg Foundation for Mental Health, 1962. 242 p. \$1.00 (paper), \$2.25 (cloth).—Research, observations, and suggestions dealing with the interaction of institutions of higher education and personality traits of students and staff members are presented. (13-page list of studies in the area) (see 37: 5555, 5557, 5576, 5606, 5609, 5612, 5613, 5614, 5619, 5623, 5632, 5635, 5639, 5676, 5680, 5684).—*R. Tyson.*

5622. **Thistlethwaite, D. L.** (Vanderbilt U.) Rival hypotheses for explaining the effects of different learning environments. *J. educ. Psychol.*, 1962, 53(6), 310-315.—2 explanations advanced to show the artifactual nature of previously reported effects of different learning environments are critically examined. Longitudinal data on a sample of 2405 undergraduate men confirm and extend the previous findings and rule out interpretation of the findings in terms of retrospective errors of recall or in terms of alleged anomalies related to covariance analysis. Men who report that their teachers exert strong press for enthusiasm, humanism, affiliation, independence, achievement, and supportiveness, or who exert weak press for compliance, tend to raise their aspirations for advanced training more than men not reporting such press.—*Journal abstract.*

5623. **Trow, Martin.** Student cultures and administrative action. In R. L. Sutherland, W. H. Holtzman, E. A. Koile, & B. K. Smith (Eds.), *Personality factors on the college campus: Review of a symposium* (see 37: 5621). Pp. 203-225.—4 college subcultures are described as academic, collegiate, nonconformist, and vocational. These are based on 2 variables: involvement with ideas and identification with the college. Less mass, impersonal processing of students would help provide a suitable atmosphere for development of the various student orientations.—*R. Tyson.*

5624. **Zimiles, Herbert, & Konstadt, Norma.** (Coll. City New York) *Orthography and authority: A study of cognitive-affective interaction.* *Psychol. Rep.*, 1962, 10, 623-626.—Negative correlations between a test of "authority conflict" and spelling accuracy were obtained for 43 male and 32 female undergraduates. Results were interpreted as supporting a view that poor spelling results in part from disguised resistance to authority demands.—*B. J. House.*

SPECIAL EDUCATION

5625. **Kellmer Pringle, M. L.** (U. Birmingham) *The long-term effects of remedial education: A follow-up study.* *Vita hum.*, Basel, 1962, 5(1), 10-33.—This is part of a larger follow-up investigation of children who attended the University of Birmingham (England) Department of Child Study. Data

were available on the social and educational history, intelligence, achievement, and personality test scores of 64 boys and 16 girls after completion of their attendance at the department. Questionnaires were filled out by parents relative to the progress of the child from an emotional point of view. The headteachers of those children still in school provided information on the achievement, interests, attitudes, and social and emotional behavior. The great majority of the children are thought to have benefited from the help they received. The headteachers' reports show that most of the children have a good attitude to school work, but the achievement remained low.—J. L. Yager.

Reading

5626. **Rasborg, Finn.** (Danish Inst. Educational Research, Copenhagen, Denmark) *Om muligheden for at konstatere en behandlingseffekt hos læsere-tarderede.* [On the effect of treatment upon reading disability.] *Pedag. Forsk.*, 1962, No. 1, 49-58.—In studies on the effect of treatment upon reading disabilities the pure treatment effect should be isolated from the effect of general development, retest effect, regression effect, and other possible important sources of error. The experimental design should thus include a treatment group, a corresponding untreated group, and a follow-up of both groups. So far only a few studies have met these requirements. (English summary)—L. Goldberger.

5627. **Robeck, Mildred C.** (U. California, Santa Barbara) *Effect of laboratory experience on course work in the teaching of remedial reading.* *Calif. J. educ. Res.*, 1962, 13(4), 154-159.—Findings are reported on a total sample of 140 seniors in elementary and junior high school credential programs in on-campus regular term, off-campus, and summer session work. Those having such laboratory experience did significantly (.001) better than those not, in terms of improvement from mid-term to final examination test scores; a similarly significant difference was found between the performances of those taking 2 units of such laboratory work over those taking 1 unit. The more experienced teachers showed less significant differences.—T. E. Newland.

5628. **Traxler, Arthur E.** *Rapid reading.* *Educ. Rec. Bull.*, 1962, No. 82, 74-75.—Speed-reading advocates fail to discriminate between types of reading material and between reading and skimming. Most people could improve reading rates by regular practice of 5 procedures: (a) systematic vocabulary study, (b) preliminary skimming, (c) closely focused attention, (d) reading in units instead of words, and (e) practice and more practice.—H. H. Gee.

5629. **Vernon, M. D.** (U. Reading) *Adult reading.* *Indian psychol. Bull.*, 1958, 3, 52-54.—A discussion of the reading habits and eye-movement habits of a poor reader and a good reader. A poor reader cannot be turned into a good reader merely by drilling his eye movements without improving his habits of grasping the reading material as a whole. 2 experiments are cited that suggest appreciably low reading ages of Chinese matriculates and Bangali undergraduates in comparison with 2 groups of younger English children of comparable intelligence.—S. L. Mishra & K. Ray-Chowdhury.

Mental Retardation

Gifted Students

EDUCATIONAL GUIDANCE

5630. **Bereiter, Carl.** (U. Illinois) *Using tests to measure change.* *Personnel Guid. J.*, 1962, 41(1), 6-11.—It is hypothesized that present test construction methods may result in tests which are not responsive to differential changes supposedly produced by counseling and guidance. The general goals of predictive efficiency in current tests entail a concentration on unchanging characteristics of people. Approaches are suggested which direct test results to yield indices of change rather than of status.—S. Kavruck.

5631. **Bloland, Paul A.** (Drake U.) *The role of the student organization adviser.* *Personnel Guid. J.*, 1962, 41(1), 44-49.—The student organization adviser functions in 3 major areas: Maintenance, in which the adviser merely maintains and supports the organization; Group Growth, in which the adviser improves the operation and effectiveness of the group in its progress towards stated goals; and Program Content, in which the adviser answers the question "For what?" (24-item bibliogr.)—S. Kavruck.

5632. **Brown, William F.** *Academic adjustment counseling through peer group interaction.* In R. L. Sutherland, W. H. Holtzman, E. A. Koile, & B. K. Smith (Eds.), *Personality factors on the college campus: Review of a symposium* (see 37: 5621). Pp. 131-135.—An experimental program using peer group discussions of test results, problems, and remedial actions won considerable student acceptance. Women's grades improved significantly although men's did not. Male counselors were slightly more effective.—R. Tyson.

5633. **Davis, J. A., & Bradburn, N.** (U. Chicago) *Great aspirations: The career plans of America's June 1961 college graduates.* *Voc. Guid. Quart.*, 1962, 10(3), 137-142.—A condensed version of a National Opinion Research Center (NORC) report of a representative nationwide sampling via questionnaires of June 1961 graduates. Replies were obtained from 33,782 graduating seniors at 135 schools. Plans for further study were reported by 77% of this group. Approximately 33% said they planned to continue their education in Fall 1961 but, as of 2 months before graduation, only 20% reported acceptance by a graduate school. NORC follow-up studies through 1965 are planned to determine actual outcomes. Only a small number (18%) report any financial difficulties. Of seniors who planned on graduate work for Fall 1961, the largest number (20%) reported plans for education; the 2nd most popular field was humanities (13%). Increasingly, students are electing the more "verbal" fields for graduate training (social science, business, humanities, law) as against physical science, engineering, and medicine. 67% said they felt the most important purpose of college was to get a basic general education; but only 38% felt this attitude was typical of the average student at his own institution.—W. L. Barnette, Jr.

5634. **Diffenbaugh, Donald J., & Bowman, Douglas J.** *Guidance services at the intermediate level.* *Personnel Guid. J.*, 1962, 41(1), 25-28.—

Research indicates increased emphasis on an intermediate level of guidance coordination. The states will determine the level. States which are pace-makers in establishing county-level guidance services, such as Florida, California, and Ohio, will probably indicate trends.—S. Kavruck.

5635. Farnsworth, Dana L. Who really helps our students? In R. L. Sutherland, W. H. Holtzman, E. A. Koile, & B. K. Smith (Eds.), *Personality factors on the college campus: Review of a symposium* (see 37: 5621). Pp. 93-109.—Deans of admission, deans of students, teachers, and parents all can and should play a role. Perhaps, eventually, specialized counselors such as psychiatrists and psychologists will be unnecessary.—R. Tyson.

5636. Green, D. A. (Ohio U.) A study of talented high school drop-outs. *Voc. Guid. Quart.*, 1962, 10(3), 171-172.—Data were obtained from a 1958 study involving a random, statewide (Iowa) sample of high school students of which approximately 10% were "talented" (an IQ of 120 or better). Of this group, 17.6% had dropped out of school. "Drops" were then compared with "persisters" and were matched for IQ score, school size, and sex. Of 29 pairs thus formed, 21 responded to a mailed questionnaire. Drop-outs had a significantly lower high school GPA, engaged in significantly fewer extracurricular activities, and were significantly more frequently absent.—W. L. Barnette, Jr.

5637. Heilbrun, Alfred B., Daniel, John L., Goodstein, Leonard D., Stephenson, Richard R., & Crites, John O. (Iowa U.) The validity of two-scale pattern interpretation on the California Psychological Inventory. *J. appl. Psychol.*, 1962, 46(6), 409-416.—The validity of 2-scale pattern interpretation for the CPI was assessed within a college counseling service population. Groups representing high and low score combinations on the Dominance and Good Impression scales were constituted, and the self-descriptive adjectives from the Adjective Check List which differentiated these groups from a representative counseling service groups were determined. These clusters of self-descriptive terms were generally consistent with the personality types which would be anticipated, based on the combined meanings of high and low scores on the individual scales as evidenced by high matching accuracy of expert judges. These results provide gross validation support for 2-scale pattern interpretation on the CPI.—*Journal abstract.*

5638. Keppers, George L., & Caplan, Stanley W. Group counseling with academically able underachieving students. *N. Mex. Soc. Stud. Educ. educ. res. Bull.*, 1962, No. 1, 12-17.—28 10th-grade boys with IQ 110 or above and grades less than C were randomly assigned to 1 of 4 group counseling situations: (a) boys counseled; (b) parents counseled, but not their boys; (c) parents and boys counseled in separate groups; and (d) controls, no counseling. Group counseling took place in 12 weekly sessions of 60 minutes each. The boys in the 2nd group showed increased congruence in self-ideal Q sorts (significant at 1%).—J. G. Cooper.

5639. Kelly, H. Paul. Counseling research program in a large state university. In R. L. Sutherland, W. H. Holtzman, E. A. Koile, & B. K. Smith (Eds.), *Personality factors on the college campus:*

Review of a symposium (see 37:5621). Pp. 125-131.—An outline of research under way in a state university includes studies of vocational choice, experience affecting college performance, the role of a counseling center, client characteristics, evaluation of changes during counseling, client-counselor relationships, group counseling, and counseling predictions based on information given.—R. Tyson.

5640. Krippner, S. (Kent State U.) The occupational experiences and vocational preferences of 351 upper-middle class junior high school pupils. *Voc. Guid. Quart.*, 1962, 10(3), 167-170.—Data on part-time work experiences and career goals were obtained from 189 boys and 162 girls in 7th and 8th-grade classes of an upper middle class Chicago suburban school system. Boys (53%) report significantly more part-time work experience than do girls (36%), but the girls' experiences are more in line with their eventual career goals (teaching, nursing, clerical) than are the boys'. The vocational preferences of the boys are not based on first-hand experience, and this is seen as a genuine school and community lack.—W. L. Barnette, Jr.

5641. Singh, B. K., & Prasad, R. C. Occupational preferences of the students of psychology at the Patna University. *Psychol. Stud., Mysore*, 1962, 7(2), 20-30.—Occupational prestige and stereotypes were found to be the most potent determinants of occupational choices. Many students were vocationally immature.—U. Pareek.

EDUCATIONAL MEASUREMENT

5642. Anselmi Zanovello, E. Inizio dell'orientamento come processo educativo in una scuola media unificata: Diagnosi di maturità sociale. [Beginning orientation as educational process in a unified junior high school: The diagnosis of social maturity.] *Riv. Psicol. soc.*, 1962, 29(1), 117-126.—Social adjustment, sociometric choices, and intelligence in a rural sample are somewhat related to familiar background.—L. L'Abate.

5643. Arnett, Chappelle. (Western Washington State Coll., Bellingham) The Purdue Motor Fitness Test Batteries for senior high school girls. *Res. Quart. Amer. Ass. Hlth. Phys. Educ. Recr.*, 1962, 33(3), 323-328.—The purpose of the study was to develop short (minimum item) motor fitness test batteries for high school girls which could be economically administered in terms of equipment and class time. The components which might contribute to motor fitness were listed and appropriate items pertaining to the components were selected for their content validity and suitability. Utilizing appropriate statistical techniques, the modified pull-up, 600-yd. run, and standing broad jump were selected as the items for the batteries. The Purdue Motor Fitness Test Battery No. 1 was recommended over the other 3 batteries since this battery had a validity coefficient of at least .755 and an estimated reliability coefficient of .848.—*Journal abstract.*

5644. Burgess, Thomas C., & Wright, Dolores D. (Montana State U.) Seventh-grade evaluation of the Ammons Quick Test (QT). *Psychol. Rep.*, 1962, 10, 791-794.—"The equivalent-forms reliability and validity of the Ammons Quick Test were checked on seventh grade students in a single Missoula elementary school. Reliability coefficients ranged from

.56 to .79. Correlations with measures of achievement varied from .12 to .81 using school marks, and from .13 to .63 using scores from the Iowa Test of Basic Skills. Item difficulties appeared to be distributed in a reasonably appropriate fashion."—*B. J. House.*

5645. **Carter, Harold D.** (U. California, Berkeley) **How reliable are good oral examinations?** *Calif. J. educ. Res.*, 1962, 13(4), 147-153.—"Analysis of data from a sample of 250 candidates in a field of medical specialization (anesthesiology) has revealed evidence of high reliability (.81) of a set of oral examinations, and evidence of only moderate agreement (.45) between measures provided by written and oral examinations in the same field of competence." Data are provided on interrater reliabilities—between the less experienced examiners, between the more experienced examiners, and between these 2 groups.—*T. E. Newland.*

5646. **Champaign Community Unit Schools, Department of Special Services Staff.** (Champaign, Illinois) **Factors associated with underachievement and overachievement of intellectually gifted children.** *Except. Children*, 1961, 28, 167-175.—"The findings of this study suggest that the high educational achievement of intellectually gifted pupils in the elementary grades is related significantly to creativity and a high degree of perceived peer acceptance. . . . Although other factors investigated (parental attitudes, self-concept, and social maturity) were not found to be related to achievement, the overachievers scored more favorably on most instruments and were generally better adjusted socially and emotionally." The educational implications are discussed.—*J. Z. Elias.*

5647. **Cowell, Charles C.** (Purdue U.) **Test of ability to recognize the operation of certain principles important to physical education.** *Res. Quart. Amer. Ass. Hlth. Phys. Educ. Recr.*, 1962, 33(3), 376-380.—A preliminary test composed of 90 items culled from an original 100 was administered to 288 college seniors or master's candidates in professional physical education from 7 universities. Statistical purification resulted in the retention of 50 of the original items on the basis of their respective indexes of discriminating power and degree of difficulty. The internal consistency reliability coefficient of .78 on the 50-item test was deemed satisfactory for a test which is a composite of a number of factors such as general intelligence and knowledge of social psychology, physiology, mental hygiene, and numerous other disciplines from which the principles related to physical education situations were drawn.—*Journal abstract.*

5648. **Elkind, David.** (U. Denver) **Quantity conceptions in college students.** *J. soc. Psychol.*, 1962, 57(2), 459-465.—240 college students were tested for their conceptions of mass, weight, and volume in a replication of studies previously carried out with children and adolescents. While 92% of the college students had abstract conceptions of mass and weight only 58% had abstract conceptions of volume. The per cent of men was significantly greater than the per cent of women having an abstract volume conception. The only finding at variance with the results from high school students was that in college women, but not in college men, the per cent of vol-

ume conceptions increased with age. This finding was, however, in keeping with the hypothesis (used to explain either of the results) that some special roles are more conducive than others to the attainment of the abstract conception of volume.—*Author abstract.*

5649. **Feldt, L. S.** (State U. Iowa) **The reliability of measures of handwriting quality.** *J. educ. Psychol.*, 1962, 53(6), 288-292.—This paper reports a reliability analysis of measures of handwriting quality. Components of variance techniques are employed to assess the magnitude of measurement errors arising from various sources. The data indicate that the reliability of quality measures, as typically obtained in elementary school classrooms, is quite low. In Grades 1 and 2 the coefficients for measures based on a single day's writing sample range from .4 to .6. Systematic variation among teachers in the harshness of their judgments is shown to be a particularly important source of error. Suggestions are offered for improving the reliability of handwriting evaluations.—*Journal abstract.*

5650. **Flanagan, J. C.** (American Inst. Research) **Project TALENT: A national inventory of aptitudes and abilities.** In G. Nielson (Ed.), *Proceedings of the XIV International Congress on Applied Psychology. Vol. 5. Industrial and business psychology.* (see 37: 4120). Pp. 53-68.—440,000 secondary school students in the United States answered approximately 2000 items of information in March 1960. They will be followed up 1, 5, 10, and 20 years after graduation. Some comparisons of students at various grade levels are presented as are some sample test questions.—*B. T. Jensen.*

5651. **Korman, Maurice.** (U. Texas Southwestern Medical School) **A factorial study of judgmental space.** *Psychol. Rep.*, 1962, 10, 739-746.—"Fifty-five members of a medical school faculty evaluated 216 applicants and rated them on 23 assessment and prediction scales. A factor analysis was performed on these data as well as on objective achievement and personality measures. The results suggested the presence of three particularly interesting dimensions in these judges' 'clinical space': (1) The Ideal Medical Student which overlapped considerably with the judge's own role and self-concept; (2) Orientation to Material Success; and (3) Service Orientation of The General Practitioner.—*B. J. House.*

5652. **Odom, Robert R.** (Los Angeles State Coll.) **Sequence and grade placement of punctuation skills.** *Calif. J. educ. Res.*, 1962, 13(4), 179-185.—On the basis of data obtained from 1818 4th-, 5th-, and 6th-grade pupils to the author's diagnostic test, an attempt was made to determine the placement of 49 specific punctuation skills on the basis of "mental age level" (test unspecified).—*T. E. Newland.*

5653. **Ray-Chowdhury, K.** (Muslim U., Aligarh, India) **An experiment with construction of tests of interests at the university level.** *Indian psychol. Bull.*, 1957, 2, 7-11.—A study of the reliability of self-assessed interests by Interest Survey (IS) and of objectively measured interests by means of Information Test (IT). Both IT and IS covered 12 areas to be measured: artistic, business, constructional-mechanical—for men only, domestic—for women only, gregarious, handicraft, literary, musical,

outdoor and physical activities, scientific, dramatic and theatrical, and welfare-humanitarian. Like-dislike items were chosen under occupations, periodicals, further educational training, and leisure time activities. IS (containing 190 questions) and IT (containing 197 items) were given to 70 teachers-under-training of the London University in 1954-55. Pattern coefficients were as follows: men = .480; and women = .278. The means of separate "r" coefficients were: men = .349; and women = .231.—*A. K. Ganguly & S. L. Mishra.*

5654. Reger, Roger. (Wayne County Training School, Northville, Mich.) **Brief tests of intelligence and academic achievement.** *Psychol. Rep.*, 1962, 11(1), 82.—"The Peabody Picture Vocabulary Test IQs for 25 boys in a residential program correlated significantly with IQs from the Wechsler Intelligence Scale for Children. Arithmetic and reading scores on the Wide Range correlated significantly with similar scores on the Metropolitan achievement tests."—*B. J. House.*

5655. Reid, J. W., Johnson, A. P., Entwisle, F. N., & Angers, W. P. **A four-year study of the characteristics of engineering students.** *Personnel Guid. J.*, 1962, 41(1), 38-43.—College candidates likely to attain the Bachelor of Sciences degree at the Newark College of Engineering are those who like scientific, computational, and/or mechanical or artistic activities; who do well on mathematical aptitude tests and math achievement tests; and who achieve well in the high school.—*S. Kavruck.*

5656. Watley, Donivan J., & Martin, H. T. (U. Denver) **Prediction of academic success in a college of business administration.** *Personnel Guid. J.*, 1962, 41(2), 147-154.—The study sought to determine the effectiveness of certain test measures in relation to academic success and the development of regressive equations for prediction purposes based upon those measures in relation to academic success. The tests included the following: Guilford-Zimmerman Temperament Survey (GZTS), Scholastic Aptitude Test (SAT), Strong Vocational Interest Blank, Bruce Business Judgment Test, Bruce Supervisory Practices Test, Allport-Vernon-Lindzey Study of Values, and Minnesota Paper Form Board Test (Revised). The GZTS plus the SAT (Mathematics and Verbal) and high school rank yielded an R of 0.82 with GPA. Findings are presented in relation to females and other tests.—*S. Kavruck.*

5657. Wevrick, Leonard. (U. Sydney) **Response set in a multiple-choice test.** *Educ. psychol. Measmt.*, 1962, 22(3), 533-538.—Through the use of a 100-item vocabulary test given to 249 university freshmen, positional response set was established. Positional bias may be induced by having the correct alternative occupy a given position with a greater than chance frequency for the whole test.—*W. Coleman.*

5658. Willingham, Warren W. **College performance of fraternity members and independent students.** *Personnel Guid. J.*, 1962, 41(1), 29-31.—Fraternity members and independent students were compared with regard to attrition during freshman year, freshman grades, and 4-year grades. Fraternity pledges have somewhat lower attrition rates during the freshman year. Fraternity members have grades

as high as or higher than those of independent students.—*S. Kavruck.*

Aptitudes

5659. Cooper, James G. **The Culture-Free Intelligence Test in a college of the western Pacific.** *Personnel Guid. J.*, 1962, 41(2), 123-125.—The study attempted to answer 3 questions: (a) How do the scores on 2 forms of the Cattell Culture-Free Intelligence Tests vary in the typical College of Guam student population? (b) To what extent is variation in scores a function of order of administration? (c) Which order of administration gives the best prediction of academic achievement? The test, while showing satisfactory reliability did not predict academic achievement. Further research is needed in this area. The test cannot be considered useful with students from the western Pacific.—*S. Kavruck.*

5660. Whitla, Dean K. (Harvard U.) **Effect of tutoring on Scholastic Aptitude Test scores.** *Personnel Guid. J.*, 1962, 41(1), 32-37.—Using matched control and experimental groups, the effects of tutoring on SAT scores was examined. All investigations to date indicate that last-ditch tutoring produces negligible results.—*S. Kavruck.*

Achievement

5661. Goodstein, Leonard D., & Heilbrun, Alfred B. (U. Iowa) **Prediction of college achievement from the Edwards Personal Preference Schedule at three levels of intellectual ability.** *J. appl. Psychol.*, 1962, 46(5), 317-320.—The scores on the Edwards Personal Preference Schedule (EPPS) were correlated with the semester grade point average on a sample of 357 undergraduates, 206 males and 151 females, with the variance attributable to a brief vocabulary test estimate of scholastic ability partialled out. While the results of the analysis of the total male and female groups were essentially negative, further analyses which followed a subdivision of each of the 2 sex groups into low, middle, and high ability groupings yielded more promising results, especially for the middle ability male subgroup. Following a comparison of the obtained results with previous studies, the importance of using levels of intellectual ability as a control variable in studies of nonintellectual factors in achievement was noted.—*Journal abstract.*

5662. Hurley, John R. (Michigan State U.) **Achievement pressure: An attitudinal correlate of college course grades.** *Psychol. Rep.*, 1962, 10, 695-702.—"An attitudinal measure of the construct of achievement pressure (AP), defined as the tendency to impose social achievement demands upon children, was described which correlated about -.40 with the grades earned by college students. . . . This AP index was essentially unrelated to intelligence as measured by standard college aptitude tests and correlations between AP and course grades rivaled those between grades and the aptitude indices. . . . If it is assumed that the students' AP scores are directly related to the achievement pressure exerted by their own parents, these results are sharply inconsistent with prior reports that parental achievement pressure facilitates scholastic success at subcollege levels." An attempt is made to account for the discrepancy.—*B. J. House.*

5663. Jungeblut, Ann. Summary of test results. *Educ. Rec. Bull.*, 1962, No. 82, 1-56.—Achievement of independent school pupils continued to exceed that of public school pupils by wide margins in all areas except foreign language, geometry, and trigonometry. Cumulative norms are now based on results obtained in 1956 and later. They still give evidence of growth in achievement from year to year which parallels growth noted in Fall aptitude testing programs. Results of the 1962 program are described and discussed with the aid of 44 tables.—H. H. Gee.
5664. Keller, E. Duwayne, & Rowley, Vinton N. (State U. Iowa) Anxiety, intelligence, and scholastic achievement in elementary school children. *Psychol. Rep.*, 11(1), 19-22.—Among 4th-, 5th-, and 6th-grade children, "correlations between anxiety and intelligence were negative, with only that for sixth-grade girls being significant. All the correlations between school achievement sub-tests and intelligence were significant. . . . An attempt to increase the efficiency of predicting scholastic achievement using anxiety and intelligence as predictor variables led to some improvement for sixth-grade girls and fourth-grade boys only."—B. J. House.
5665. Merenda, Peter F., Hall, Charles E., Clarke, Walter V., & Pascale, Alfred C. (U. Rhode Island) Relative predictive efficiency of the DAT and a short multifactor battery of tests. *Psychol. Rep.*, 1962, 11(1), 71-81.—"A new multifactor battery consisting of 8 short tests, requiring a total of 42 min. of test-taking time, was administered to the entire eleventh grade of a large city high school. The class had previously been administered the DAT battery, consisting also of 8 tests but requiring 186 min. of test-taking time, in the eighth grade. Analysis of these joint data revealed that the batteries are highly correlated, that they measure essentially the same three factors, and that they yield substantially the same predictive validities in determining the final grades obtained by Ss in eleventh and twelfth grade courses in" a variety of courses.—B. J. House.
5666. North, Robert D. Results of the ERB Mathematics Tests in the 1962 spring program. *Educ. Rec. Bull.*, 1962, No. 82, 57-62.—In the spring of 1962, new mathematics tests reflecting curriculum changes in mathematics teaching were offered for the 2nd time. These tests cover (a) analytical geometry; (b) sets, equations, inequalities, and number concepts; (c) probability and statistics; and (d) introductory calculus. Nearly 300 pupils were tested in geometry and sets in 1962, representing a substantial increase in numbers over 1961. However, median achievement levels in these 2 areas dropped considerably from the levels attained in 1961, even though teachers' ratings of items indicated the 1962 items were similarly within the curricular coverage of their courses. The number of students tested in introductory calculus increased over 1961 from 104 to 178; probability and statistics tests were taken by only 46 pupils (45 in 1961). The median achievement level in calculus was approximately equal to 1961; the probability and statistics median, however, nearly doubled the 1961 level, with parallel ratings of appropriateness of items.—H. H. Gee.
5667. North, Robert D. Interpretation of students' records as reported on the Transcript for Admission to Independent Schools. *Educ. Rec. Bull.*, 1962, No. 82, 63-73.—Several specimens of actual records of students from an independent elementary school are presented and analyzed to demonstrate use and utility of a transcript and commentary form newly developed in 1961. Designed by a joint committee of the Independent Schools Education Board and the Educational Records Bureau, the new form encourages uniform transcripts for presentation by public and independent elementary schools to independent secondary schools.—H. H. Gee.
5668. Peel, E. A. (U. Birmingham, England) Curiosity and interest in motivating school learning. (In G. Nielson (Ed.), *Proceedings of the XIV International Congress of Applied Psychology*. Vol. 3. *Child and education* (see 37: 4118). Pp. 153-160.—"Interest in school work and general curiosity are successful predictors of achievement."—B. T. Jensen.
5669. Rao, S. Narayan. Predicting academic achievement of students in science and arts colleges. *Psychol. Stud.*, Mysore, 1962, 7(2), 16-19.—Using 4 predictors with 220 students achievement was reliably predicted. The best single predictor was found to be the performance in the pre-university examination.—U. Pareek.
5670. Rosenberg, Leon A., McHenry, Thomas B., Rosenberg, Anna Maria, & Nichols, Robert C. (Fort Sam Houston, Medical Field Service School, Tex.) The prediction of academic achievement with the California Psychological Inventory. *J. appl. Psychol.*, 1962, 46(6), 385-388.—An attempt to use the California Psychological Inventory to predict the academic grades of students in 3 military courses: Neuropsychiatric, Clinical Psychology, and Social Work Procedures. The data indicated that a combination of the Achievement via Independence scale of the California Psychological Inventory and the General Technical score from the Army Classification Battery, makes an effective instrument for screening students for admittance to these courses. The predicted criterion scores, obtained from 2 multiple prediction equations, were correlated with the academic grades achieved by students in 2 samples ($N = 98$; $N = 64$). The obtained r 's were .610 and .600 ($p < .01$). Cross-validation correlations were obtained with 2 new samples ($N = 35$; $N = 33$). The obtained r 's were .631 and .558 ($p < .01$).—*Journal abstract*.
5671. Rouart, Julien; Narlian, Raymonde, & Simon, Janine. (Inst. Edouard Claparede) L'échec scolaire: Etude clinique, structurale et dynamique. [School failures: A clinical study of the structure and dynamics.] *Psychiat. Enfant*, 1960, 3(2), 333-403.—School failure is considered as a psychiatric syndrome underlying affective difficulties. It is generally part of a clinical syndrome with multiple and varied determinants. Clinical observations of the symptoms reveal difficulty in the means of acquisition and use of learning. Etiological factors can be environmental as well as inner determined. Psychotherapeutic or pedagogic reeducation should take into account both the environmental circumstances which precipitated the failure as well as the child's personality structure.—R. Naar.
5672. Sarason, Irwin G. (U. Washington) Test anxiety and intellectual performance. *J. abnorm. soc. Psychol.*, 1963, 66(1), 73-75.—High school stu-

dents were administered 2 anxiety scales, the Test Anxiety Scale and a Need for Achievement scale. Scores on these tests were related to scores on the School and College Ability Test (SCAT). Test anxiety was found to be negatively correlated with SCAT scores. The negative correlations obtained tended to be larger for female than for male Ss. The Need for Achievement scale showed only a slight tendency to correlate negatively with SCAT scores. The results were interpreted as being consistent with the conception of anxiety as an interfering non-intellectual influence on intellectual performance.—*Journal abstract.*

5673. Schonell, F. J. School failure. *Indian psychol. Bull.*, 1958, 3, 30-44.—This paper, written by the author after attending the international seminar in Hamburg in 1956, is reprinted from *Slow Learning Child*.—S. L. Mishra & K. Ray-Chowdhury.

5674. Willey, D. S., & Stablein, J. E. A comparison of language arts achievement between elementary and junior high school seventh grades. *N. Mex. Soc. Stud. Educ. educ. res. Bull.*, 1962, No. 1, 6-7.—35 7th-grade urban junior high school pupils were matched (sex, IQ, ethnic group) with pupils enrolled in self-contained, rural 7th grades. Gains between October and April were comparable for the 2 groups.—J. G. Cooper.

5675. Zandrino, U., & Ferraris, C. Contributo allo studio della previsione del rendimento scolastico. [Contribution to the study of prediction in academic success.] *Riv. psicol. soc.*, 1962, 29(1), 113-116.—Correlations and multiple regression equations between intelligence tests and scholastic grades are all positive.—L. L'Abate.

EDUCATIONAL PERSONNEL

5676. Allen, Lucile. A study of role conflicts and congruences encountered by the new faculty member as he enters the culture of a college or university community. In R. L. Sutherland, W. H. Holtzman, E. A. Koile, & B. K. Smith (Eds.), *Personality factors on the college campus: Review of a symposium* (see 37: 5621). Pp. 142-144.—Interviews with Austin College faculty members showed changes in views of college aims on the part of new arrivals, little appreciation of promotion procedures, and an unexpectedly large number of teachers with foreign-born parents.—R. Tyson.

5677. Burkard, M. I. (Mt. Mary Coll.) Discernment of teacher characteristics by TAT sequence analysis. *J. educ. Psychol.*, 1962, 53(6), 279-287.—What are some of the underlying personality factors that distinguish teachers rated by their pupils at the extremes in teaching efficiency? 300 religious women teaching in Grades 4 through 12 were rated by their classes (10,720 pupils). TAT sequence analysis of 1200 stories of high-rated and low-rated paired samples yielded clearly distinguishing characteristics in the 2 groups ($p < .001$). The high-rated teachers showed a basic disposition to respond to life realistically and constructively, while the low-rated ones did not. Results were verified by the successful assignment of the teachers to the high or low group on the basis of their positive or negative scores on the empirically established criteria.—*Journal abstract.*

5678. Cook, Desmond L. (Purdue U.) A note on the relationship between MTAI and GZTS scores for three levels of teacher experience. *J. educ. Res.*, 1962, 55(8), 363-367.—Beginning and student teachers show similar relationships between Minnesota Teacher Attitude Inventory scores and each of the various Guilford-Zimmerman Temperament Scale traits but these relations differ from experienced teachers primarily in that the correlations are higher for the latter group. The increasing size of correlations with teaching experience suggests that there may be personality changes taking place with increased participation in professional work.—F. Goldsmith.

5679. Dutton, Wilbur H. (U. California, Los Angeles) Attitude change of elementary school student teachers and anxiety. *J. educ. Res.*, 1962, 55(8), 380-382.—The Minnesota Teacher Attitude Inventory was given to 91 elementary school student teachers at the University of California, Los Angeles upon entry and at the end of a semester of student teaching. Both highly anxious and nonanxious elementary school student teachers changed their attitudes toward youth in a negative direction. The influences of student teaching may be a critical factor in the development of teachers' attitudes toward children. Education students not engaged in practice teaching maintained their high positive attitudes toward children. The study suggests practice teaching situations may be unduly stressful.—F. Goldsmith.

5680. Evans, Richard I. Values and attitudes of university professors: Some general and specific findings. In R. L. Sutherland, W. H. Holtzman, E. A. Koile, & B. K. Smith (Eds.), *Personality factors on the college campus: Review of a symposium* (see 37: 5621). Pp. 157-159.—Preliminary results of research with professorial resistance to change reveal hesitation about television instruction because lectures would be bared to colleagues and administrators. Actual television experiences lower resistance. Professors regard themselves as good teachers, "rough, honest, active, fair, strong, fast, pleasant, hard, and valuable."—R. Tyson.

5681. Fleming, C. M. (U. London) Psychology and the work of a teacher. *Indian psychol. Bull.*, 1957, 2, 31-36.—A discussion, with a brief historical reference to the changing notion of a teacher's task in Great Britain since the beginning of the 20th century, of the present problems of a teacher. The work of a teacher is now both more exciting and more enthralling than it was in the middle years when acceptance of the inevitability of failure for pupils who had once been streamed as C or D reduced the self-respect of many teachers and led many parents to despair.—A. K. Ganguly & K. Ray-Chowdhury.

5682. Greene, James E., Sr., & Scott, Mary Hughie. (U. Georgia) Personal characteristics associated with certain motives for choosing teaching as a vocation. *Psychol. Rep.*, 1962, 11(1), 199-202.—Scores on the Lang Scale of Motives for Teaching were related to 12 personal characteristics such as grades, socioeconomic factors, etc. for 482 prospective women teachers. It was concluded that Ss who attributed relatively great importance to socially acceptable motives tended to have generally desirable characteristics for the teaching profession.—B. J. House.

5683. Leftwich, William H., & Remmers, Hermann H. (U. Richmond) A comparison of graphic and forced-choice ratings of teaching performance at the college and university level. *Stud. higher Educ.*, 1962, No. 92. 35 p.—The Purdue Rating Scale for Instruction (graphic scale) and the Purdue Instructor Performance Indicator (forced-choice scale) were completed by 2109 students rating 80 faculty members at a large midwestern university. In this study an attempt was made to combine the diagnostic advantages of a graphic scale with certain advantages of a forced-choice scale, that of less susceptibility to certain rater tendencies. Based on the results of factor analysis, revised scoring procedures were developed. Findings suggest further research is warranted.—R. M. Frumkin.

5684. McGee, Reece. Some occupational concomitants of academic degrees. In R. L. Sutherland, W. H. Holtzman, E. A. Koile, & B. K. Smith (Eds.), *Personality factors on the college campus: Review of symposium* (see 37: 5621). Pp. 144-157.—A survey of college faculty members revealed that common knowledge about academic employment is "more or less true in a vague and general way." Some misapprehension appeared in wrongly assuming the necessity of the doctorate.—R. Tyson.

5685. Scandrette, Onas. (Wheaton Coll.) Differential need patterns of women elementary and secondary level student teachers. *J. educ. Res.*, 1962, 55(8), 376-379.—73 student teachers preparing to teach on the elementary level and 89 students preparing to teach at the secondary level completed the Edwards Personal Preference Schedule. Statistically significant differences between the mean scores of elementary and secondary student teachers were found for autonomy, affiliation, dominance, and aggression. Secondary level student teachers' scores are closer to the liberal arts norm group than those of the elementary student teachers.—F. Goldsmith.

INDUSTRIAL & MILITARY PSYCHOLOGY

5686. Karn, Harry W., & Gilmer, B. von Haller. (Carnegie Inst. Technology) *Readings in industrial and business psychology*. (2nd ed.) New York: McGraw-Hill, 1962. xi, 515 p. \$6.95 (cloth), \$4.95 (paper).—58 previously published articles in the field of industrial and business psychology. 50 of the articles were published after 1954, none prior to 1951. Included are readings in classical topic areas, engineering psychology, criterion problems, and organizational behavior.—R. C. Browning.

5687. Milburn, Thomas W. (China Lake, Calif.) *Space crews, psychology, and American society*. *J. soc. Issues*, 1961, 17(2), 24-28.—A discussion of certain implications drawn from the necessity for multiple crew situations in space exploration, with particular regard to the interpersonal stresses involved.—A. Barclay.

5688. Murphy, Gardner. (Menninger Found.) *Testing the limits of man*. *J. soc. Issues*, 1961, 17(2), 5-14.—The author discusses, from a broad cultural perspective, the social pressures impelling space exploration, together with some discussion of factors of human endurance in the pursuit of such explorations.—A. Barclay.

5689. Oshanin, D. A. (Ed.) *Psikhologiya promyshlennogo truda*. [The psychology of industrial work.] *Izv. Akad. Pedag. Nauk RSFSR*, 1962, No. 119, 152 p.—These transactions of the Institute of Psychology are devoted to reports of research analyzing the psychological aspects of various industrial operations.—I. D. London.

5690. Sells, S. B. (Texas Christian U.) Some implications of astronautical research for human affairs. *J. soc. Issues*, 1961, 17(2), 15-23.—"This brief survey has commented on a number of aspects and by-products of the . . . space sciences and technologies with particular reference to their impacts on society and human affairs."—A. Barclay.

5691. Viteles, M. S. (U. Pennsylvania) *Man, mind, and machines*. In G. Nielson (Ed.), *Proceedings of the XIV International Congress of Applied Psychology*. Vol. 5. *Industrial and business psychology* (see 37: 4120). Pp. 9-25.—Automation brings fears. The nature of the fear is discussed and some means of dealing with it suggested. There is need for research on transferability. (41 ref.)—B. T. Jensen.

VOCATIONAL GUIDANCE & APTITUDES

5692. Gordon, Leonard V., & Anderson, Adolph V. (USN Personnel Research Field Activity, San Diego) *A factor analysis of interests in certain skilled occupations*. *Educ. psychol. Measmt.*, 1962, 22(3), 473-483.—An interest inventory containing 300 items was developed for use with Navy recruits. The responses of a sample of 400 recruits were factor analyzed yielding 8 factors: clerical, electrical-electronic, mechanical, medical-dental, navigation, aviation, hazardous duty, and service. The factors are described and illustrated with sample items. The factors are compared with those found by Guilford et al. (see 29: 4727) for professional level occupations.—W. Coleman.

5693. Helme, W. H., Graham, W. R., & Anderson, A. A. Development of ACB Automotive Information and Clerical Speed Tests, Forms 3 and 4. *USA Personnel Res. Off. OCRD Tech. Res. Rep.*, 1962, No. 1122. 24 p.—In response to the continuing requirement to increase effectiveness of the operational Army Classification Battery, 2 new forms of the Automotive Information Test (AI) and Army Clerical Speed Test (ACS) were developed. Emphasis was placed on updated content for the AI forms and shorter length and improved format for the ACS. The tests were administered experimentally, along with the original operational forms, to 728 enlisted men. The new forms (AI-3 and -4 and ACS-3 and -4) proved reliable measures of aptitudes required for jobs in the Motor Maintenance (MM) and Clerical (CL) occupational areas, and correlated sufficiently with the prior Forms 1 and 2 (.84-.90 for AI; .69-.86 for ACS) to warrant their use as replacements in the ACB.—A. J. Drucker.

5694. Paterson, D. G. (U. Minnesota) *Values and interests in vocational guidance*. In G. Nielson (Ed.), *Proceedings of the XIV International Congress of Applied Psychology*. Vol. 5. *Industrial and business psychology* (see 37: 4120). Pp. 118-125.—After presenting data regarding prestige ranking of occupations showing, in part, similarity among 3 countries, follow-up studies are cited to show con-

sistency between Strong Vocational Interest Blank responses and occupations 18 years later. (15 ref.)—*B. T. Jensen.*

5695. **Pétin, M.** (Inst. National d'Orientation Professionnelle, Paris, France) **Motivation and vocational guidance.** In G. Nielson (Ed.), *Proceedings of the XIV International Congress of Applied Psychology. Vol. 5. Industrial and business psychology* (see 37: 4120). Pp. 126-133.—Motivation must be taken into account when advising a person regarding a vocation. The author points out that the definiteness of an idea about a career depends upon nearness to entering professional life. A lack of variety of choices by young people is indicated by the narrow range of professions chosen.—*B. T. Jensen.*

5696. **Schutz, Richard E., & Baker, Robert L.** (Arizona State U.) **A comparison of the factor structure of the Kuder Occupational, Form D for males and females.** *Educ. psychol. Measmt.*, 1962, 22(3), 485-492.—"A factor analysis of the 42 raw scores obtained on the Kuder Preference Record—Occupational, Form D by 488 college freshmen females yielded a factor structure directly comparable to that obtained previously for a sample of males drawn from the same population. Although the eight factors extracted in each analysis appeared to be directly parallel, certain nuances in the pattern of loadings for several scales were identified. The implications of the findings for practical test usage were discussed."—*W. Coleman.*

5697. **Skawron, P. R.** (Rupertstr. 303, Pretoria, South Africa. **Berufsberatung als Lebensberatung und ihre Methodik.** [Vocational guidance as counseling and its methodology.] *Z. exp. angew. Psychol.*, 1962, 9(2), 317-338.—Multiple capabilities of man suggest that a person can probably find satisfaction in more than one vocation. Therefore, the counseling task in vocational guidance is stressed. It weighs the personality factors in addition to the skills of a client and directs him to suitable fields rather than to a particular vocation. A method of vocational guidance under these aspects is described.—*W. J. Koppitz.*

5698. **Thompson, A. S.** (Columbia U.) **The sense of vocation.** In G. Nielson, (Ed.), *Proceedings of the XIV International Congress of Applied Psychology. Vol. 5. Industrial and business psychology* (see 37: 4120). Pp. 142-148.—Vocational choice is a process involving many decisions. Vocational counselors need to diagnose the vocational maturity of clients, help them evaluate their own development and self-concepts, and help them get information.—*B. T. Jensen.*

OCCUPATIONAL & CAREER INFORMATION

5699. **Auman, Fred A.** (Philadelphia Gas Works) **Retraining: How much of an answer to technological unemployment?** *Personnel J.*, 1962, 41(10), 505-507.—The results of both private and public retraining programs have been disappointing. In the Armour and Company study, only 13% of 433 employees were successfully retrained after their jobs were eliminated. In Bridgeport, Connecticut, the government was successful in retraining only 2% of the more than 4000 unemployed, semiskilled workers they considered for training for other available semiskilled jobs. Many (28% of the Armour group and

61% of the Connecticut group) were not sufficiently motivated to participate in the selection process. Among the deterrents to entering retraining were unemployment benefits and home ownership which reduced willingness to relocate. Only a little more than 1/3 of each group who were tested met the minimum test requirements for the training. The chief problem seems to be that "we are eliminating the 80 IQ jobs but haven't yet determined what to do with the 80 IQ jobless."—*M. B. Mitchell.*

5700. **Dittes, James E.** (Yale U.) **Research on clergymen: Factors influencing decisions for religious service and effectiveness in the vocation.** *Relig. Educ.*, 1962, 57(4, Res. Suppl.), 141-165.—Interrelated questions of recruitment, selection, and training of persons for religious vocations in the light of available research are discussed.—*S. A. Walters.*

5701. **Laurent, P., & Philonenko, A.** **Le débile mental dans le monde du travail.** [The feeble-minded in the working world.] *Bull. Cent. Etud. Rech. Psychotech.*, 1961, 10(3), 217-399.—The whole issue is devoted to the socioprofessional adaptation of the feeble-minded. Numerous psychological, phenomenological, psychotechnical, sociological, and pedagogical analyses are included. The following conclusions are drawn: (a) Vocational distribution of the feeble-minded depends exclusively upon social prejudice, working conditions, and training conditions relevant to each type of work. This explains the very large number of feeble-minded (31%) working in the building industry. (b) Few feeble-minded are out of work. This may be explained by a vocational stability expressing limited adaptation. (c) The feeble-minded is not a mere drudge; most often in the city, he is a specialized worker and even manages to become semiquified without his employers noticing his deficiencies. In view of these findings, it is felt that concrete possibilities may be envisaged in the form of a new reeducation system, the creation of new vocational outlets, and close collaboration between reeducation and vocational orientation organizations.—*V. Sanua.*

5702. **Segal, Bernard E.** (Goucher Coll.) **Male nurses: A case study in status contradiction and prestige loss.** *Soc. Forces*, 1962, 41(1), 31-38.—Interview data from 22 male and 79 female nurses, employed in the same private psychiatric hospital, reveal that prestige may decrease for the male employed in an occupation predominantly staffed by females. It is suggested that a person's occupational prestige does not solely depend upon the ranking of that occupation, but also upon certain evaluations. It is further suggested that consideration of how far one fails to meet the expectations assigned to his category may be important for the study of occupational prestige.—*A. R. Howard.*

5703. **Shuval, Judith T.** (Hebrew U., Jerusalem, Israel) **Social factors conditioning recruitment of nurses in Israel.** *J. Hlth. hum. Behav.*, 1962, 3(2), 82-88.—The recruitment of nurses in Israel was studied by means of clinical interviews with 50 1st-year nursing students, questionnaires given to 247 1st-year student nurses, and an occupational interests questionnaire given to 1266 high school girls. The data were interpreted in the frameworks of the affective-nurturant personality component and social class. Conclusion: There is, apparently, "a high

interest in the nursing profession among lower class girls with a high affective-nurturant personality component, and a relatively low interest in the profession by upper class girls lacking an affective-nurturant component in their personalities."—L. A. Ostlund.

5704. Skawran, P. F. (P. O. Box 395, Pretoria, South Africa) Ein Beitrag zur Psychologie des "Arbeitsbildes": I. "Ideale" und "reale" psychologische Arbeitsbilder. [Idealistic and realistic occupational profiles.] *Psychol. u. Praxis*, 1961, 5(4), 146-157.—Realistic profiles were developed. Supervisor ratings and test scores from 404 workers in 28 skilled trades with at least 5 years experience were obtained. A factor analysis of the test scores identified 4 factors: general intelligence, memory, practical and technical, and form discrimination. The workers were grouped into high and low on the basis of the supervisory ratings. A composite criterion of ratings and test scores determined success and furnished the basis for the profiles.—H. Roemmich.

SELECTION, PLACEMENT, APPRAISAL

5705. Cannon, Dennis, & Olson, Howard C. SPANOCON: Span of control. II. Effect on reliability of free and forced distributions in rating. *HumRRO res. Memo.*, 1961, Subtask Spanocon, Task 11-28. 9 p.—Ratings forced into "a symmetrical, essentially normal distribution" were not significantly more reliable than free ratings.—R. Tyson.

5706. Cassie, Alex. Constancy and change in pilot aptitude. In Frank Geldard (Ed.), *Defence psychology* (see 37:4053). Pp. 91-98.—A discussion of the changing skills necessary for piloting modern high-performance military aircraft and the consequent need for revised selection methods.—G. H. Mowbray.

5707. DeJung, John E., & Kaplan, Harry. (USA Personnel Research Office, Washington, D. C.) Some differential effects of race of rater and ratee on early peer ratings of combat aptitude. *J. appl. Psychol.*, 1962, 46(5), 370-374.—Peer ratings of combat potential made by 669 Caucasian and Negro army recruits of the squad members were examined. The hypothesis that ratees would receive higher ratings from members of their own race than from members of another race was supported ($p < .05$) for all ratee samples. The hypothesis that raters would give higher ratings to men of their own race than to men of another race was supported for Negro raters but not for Caucasian raters. The obtained significant differences appeared basically a reflection of higher ratings received by Negroes from Negroes. For practical purposes the effect on the recruit's average rating score was negligible because of the preponderance of Caucasian raters within squads exhibiting no rating preferences.—*Journal abstract*.

5708. Delys, Louis. Contribution à l'étude de critère d'appréciation de la valeur militaire de sous-officier candidat à l'avancement. [Contribution to the study of criteria for the estimation of the military value of NCO candidates for advancement.] In Frank Geldard (Ed.), *Defence psychology* (see 37: 4053). Pp. 134-149.—Research oriented to the construction of a merit-rating system for evaluating NCO candidates for promotion. Accent is placed on his capacities as a leader and an instructor. Resulting from the research are 2 questionnaire forms

available to commanders that provide both validity and reliability. Examples of both forms are given.—G. H. Mowbray.

5709. de Wet, D. R. A compact flicker-fusion machine and its application to air-pilot candidates. *Psychol. Afr.*, 1962, 9, 100-118.—The construction and application of a flicker-fusion machine is described with accompanying photographs and diagrams. 2 groups of pilots ($N = 163$ and 152) were given the test experimentally. "It might be preferable to conduct the test by subdued artificial light than daylight. . . foveal measurement appeared more reliable than peripheral." These 2 variables appear to have a common function. "No significant r 's were obtained between the visual CFF and . . . span of attention, speed of perception, insight, learning, speed on a complex reaction test, perseveration (motor), and mental alertness. A high biserial r was obtained between high CFF and tendency to free expression of emotion. . . There appears to be a significant relationship between CFF and success or failure on courses of flying training."—J. L. Walker.

5710. de Wet, D. R. A variable co-ordination test and its potentiality as a gauge of aptitude for airmanship. *Psychol. Afr.*, 1962, 9, 86-99.—Diagrams and photographs illustrate a test which has been devised to measure muscular coordination. A study measuring the hand-foot coordination of air-pilot candidates was done ($N = 47$). "Fast working is associated with success." Fear of punishment as measured by a shock slowed up performance significantly. Talkativeness and sociability were associated with success.—J. L. Walker.

5711. de Wolff, C. J. A factor analysis of the old and the new test battery of the Royal Netherlands Navy. In Frank Geldard (Ed.), *Defence psychology* (see 37: 4053). Pp. 77-86.—A study to compare the old and the new test battery of the Royal Netherlands Navy. The former is similar to one used by the British Navy, while the latter is similar to that in use by United States military services. Results of a factor analysis indicate that the new battery measures the same factors as the old one; and since administration and scoring is much improved, the new battery is to be preferred.—G. H. Mowbray.

5712. Gibson, W. A. (Personnel Research Office, Dept. Army, Washington, D. C.) Class assignment in the latent profile model. *J. appl. Psychol.*, 1962, 46(6), 399-400.—The latent profile model provides a way of establishing an empirically-based typology from quantitative measures, and this paper sketches a method for assigning any person's score profile to its most appropriate type.—*Journal abstract*.

5713. Gordon, Leonard V. Development of a new Navy-enlisted man classification battery. In Frank Geldard (Ed.), *Defence psychology* (see 37: 4053). Pp. 53-76.—A description of the development of the Navy Activities Preference Blank, which when used in conjunction with the new enlisted classification battery "should increase the utility of the new battery for differential classification purposes."—G. H. Mowbray.

5714. Hicks, John A., & Stone, Joics B. (Aerojet-General Corp., Azusa, Calif.) The identification of traits related to managerial success. *J. appl. Psychol.*, 1962, 46(6), 428-432.—To evaluate the effectiveness of a test battery in discriminating be-

tween successful and unsuccessful managers, a comprehensive battery was administered to 76 supervisors of an autonomous, medium-sized operating division. Results from the Guilford-Zimmerman Aptitude Survey, California Test of Mental Maturity, and Structured-Objective (S-O) Rorschach Test were related to ratings of overall performance, promotability, and versatility by peers and superiors. The test battery showed significant correlations with peer ratings in all three of these areas (.46-.68), but showed a significant correlation (.44) only with the supervisors' evaluation of versatility. The S-O Rorschach Test proved to be the most effective test in the battery.—*Journal abstract.*

5715. Hudson, W., Roberts, A. O. H., van Heerden, C. D., & Mbau, G. G. The usefulness of performance tests for the selection and classification of Bantu industrial workers. *Psychol. Afr.*, 1962, 9, 189-203.—Skilled and unskilled Bantu workers, both male and female (N ranged from 48 to 586) were given the following tests: bolts and nuts, sorting, cube construction, tripod assembly, formboards, wiggly blocks, Kohs blocks. They proved useful in discriminating unskilled from skilled workers. 3 hypotheses are discussed in explaining the findings.—*J. L. Walker.*

5716. Humphreys, Lloyd G. (U. Illinois) Stability of airman classification test scores. *USAF PRL tech. docum. Rep.*, 1962, No. 62-3. iv, 7 p.—Stability of Air Force test scores was examined as 1 facet of the long-range prediction problem. Data for high school students were obtained on Air Force classification tests from an original test session at midyear of 1958-59 and a retest session 1 year later. Control groups were formed from students at 3 class levels tested only once. Mean growth in aptitude test scores between control class groups was of the same magnitude as the retest gains except for 2 of the airman tests: Figure Recognition and Clerical Matching. Conversions of Air Force aptitude indexes to World War II Army General Classification Test (AGCT) scores show that Mechanical Index scores averaged greater gains from year to year than AGCT, while the Administration Index showed lower gains than AGCT. . . . Intercorrelations of test obtained over the 1-year period were not appreciably lower than those obtained without intervening time.—*USAF PRL.*

5717. Kamfer, L. Army instructor selection: Development of a miniature situation test for the assessment of instructional ability and its contribution to a test battery. *Psychol. Afr.*, 1962, 9, 44-59.—A miniature test situation is described together with a statistical analysis of its use with 23, 36, and 37 instructors, and 79 and 82 trainees. The test "appears to hold promise." Further research is indicated.—*J. L. Walker.*

5718. Kamfer, L. The utility of a buddy rating procedure as opposed to a sociometric test for the identification of military leaders. *Psychol. Afr.*, 1962, 9, 37-43.—Buddy ratings measure the same quality as the sociometric test to a very great extent, and their reliability is equal to that of the test. Further study by means of factor analysis is indicated.—*J. L. Walker.*

5719. Khan, Rafi-uz-Zaman. (Cambridge State School, Minn.) Psychological methods of officer

selection. Anarkali, Lahore: Caravan Book House, circa 1950. viii, 136 p. \$2.00.—This book covers the development of the War Officer Selection Boards (WOSBs) in England in World War II and the extension and application of WOSB methods to officer selection in India and Pakistan. Also covered are recruit and "other rank" selection, organizational and sociological problems encountered in establishing WOSB selection techniques in India, and the development of nonverbal tests for use in India. Briefly reported is a study on 13,614 Indian men showing peak intelligence at age 20, a plateau until age 35, and then a decline. Another briefly reported study showed, contrary to hypothesis, no significant differences in intelligence between provinces in India.—*B. Rimland.*

5720. Kragh, U. (Lund U., Denmark) Predictions of success of Danish attack divers by the Defense Mechanism Test (DMT). *Percept. mot. Skills*, 1962, 15(1), 103-106.—3 small groups of Danish attack divers have been tested with the Defense Mechanism Test (DMT), and the protocols coded, rated, and ranked independently by 3 raters. All the raters' predictions, based exclusively on the DMT, correlate positively and significantly with the criteria. It is suggested that the DMT is suited for predicting success of various types of personnel working under conditions of stress.—*W. H. Guertin.*

5721. Lacavalerie & Nicolas. Recherches sur quelques aspects de l'efficacité au combat. [Research on some aspects of combat efficiency.] In Frank Geldard (Ed.), *Defence psychology* (see 37: 4053). Pp. 19-29.—In an attempt to discover what behavioral characteristics distinguish the good combatant from the not so good and to develop stable prognostic tools, experiments were performed on French soldiers of European background in combat units in Algeria. Rating scales, personality tests, and psychomotor tests of various kinds were used in the search for valid criteria. Some success was obtained, but the general conclusion which emerges is that more objective criteria than are at present available are desperately needed.—*G. H. Mowbray.*

5722. McQuitty, Louis L. (Michigan State U.) Multiple hierarchical classification of institutions and persons with reference to union-management relations and psychological well-being. *Educ. psychol. Measmt.*, 1962, 22(3), 513-531.—For assessing individual differences in mental health, an objective method called Multiple Hierarchical Syndrome Analysis has been developed. The method permits classification of Ss in terms of their most predominant patterns, next most predominant patterns, etc. An illustration of the method is presented using the patterns of characteristics of industrial companies. The method is based in part on these assumptions: a classification assumption, principle of maximum classification, and the computation of residual agreement scores. Weaknesses in these assumptions are discussed as well as general limitations in the use of the method.—*W. Coleman.*

5723. Marks, Melvin R. Development of human proficiency and performance measures for weapon systems testing. *USAF ASD tech. Rep.*, 1961, No. 61-733. vi, 85 p.—Methods for evaluating human performance are discussed and compared for validity, reliability, objectivity, standardization, and economy.

Personnel Subsystem Test development constraints are considered and methods are proposed for the construction, scoring, administration, and standardization of measurement instruments. Appendices are included which exhibit sample content, sample computation, and definitions of terms of the personnel subsystem.—*USAF ASD*.

5724. Meyer, H. H., & Walker, W. B. (General Electric Co.) **A study of factors relating to the effectiveness of a performance appraisal program.** *Personnel Psychol.*, 1961, 14(4), 291-298.—Of 49 employees reporting performance appraisal feedback sessions with their supervisors, 21 had taken constructive actions as a result. This criterion was found to be associated with: (a) how well the manager handled the appraisal discussion, (b) preference for intermediate level risks, and (c) attitude toward merit plan. The skill with which a supervisor handles the appraisal feedback session with subordinates is a key factor in determining the effectiveness of the appraisal program in motivating behavioral change.—*A. S. Thompson*.

5725. Mumford, Jack, & Smith, John P. **The development of performance criteria for turret mechanics.** *HumRRO res. Memo.*, 1961, Subtask Mobility X, Task 11-23. 17 p.—A proficiency test for turret mechanics was developed for purposes of selection, course content and emphasis, and standards of instruction. Test description and norms are supplied.—*R. Tyson*.

5726. Pinto dos Santos, Delfim. **Analyse caractérogique des aptitudes militaires.** [Character analysis of military aptitudes.] In Frank Geldard (Ed.), *Defence psychology* (see 37: 4053). Pp. 87-90.—The author makes a plea for the wider use of character analysis as developed by Heyman and Wiersma in selecting individuals for specific military duties.—*G. H. Mowbray*.

5727. Polin, A. Terrence; Morse, Richard J., & Zenger, John H. (U. Southern California, Los Angeles) **Selecting programmers from in-plant employees.** *Personnel J.*, 1962, 41(8), 398-399.—A survey regarding methods used for selecting employees to develop auto-instructional programs for training employees was made of 50 educators and 70 company-employed professionals. Of these 120, only 49 had significant experience in selecting and evaluating programmers. Those who used personality selection criteria showed a slight tendency to consider task orientation as most important. Less than 1/2 thought tests important. The more experienced thought the expensive trial-and error performance data the most satisfactory method for selection at present.—*M. B. Mitchell*.

5728. Smode, Alfred F., Gruber, Alin, & Ely, Jerome H. **The measurement of advanced flight vehicle crew proficiency in synthetic ground environments.** *USAF MRL tech. docum. Rep.*, 1962, No. 62-2. vi, 120 p.—This report is devoted to the presentation and discussion of major considerations in the design of systems for measuring the proficiency of advanced flight vehicle crews in synthetic ground environments. Emphasis is given throughout to the logic of proficiency measurement and the general problems involved rather than to the analysis of specific details. Successive portions of the report deal with general measurement concepts, procedures and

steps in designing measurement systems, an example application of the material presented, and the anticipated characteristics of advanced flight vehicle simulation equipment related to proficiency measurement. In addition, an historical overview of aircrew proficiency measurement emphasizing early work and a list of study references on rating methods are appended. As it provides a considerable background of information of proficiency measurement, this report will be of interest to individuals directly concerned with simulator training programs, proficiency evaluation and standardization, training standards, and training equipment procurement for advanced flight systems.—*USAF MRL*.

5729. Sprunger, J. A. (System Development Corp., Santa Monica, Calif.) **The ability of the individual to contribute to his group.** *Personnel Psychol.*, 1961, 14(4), 317-330.—A Group Contribution Inventory was developed and found to correlate .36 with a rating criterion in an Army base setting. The correlations were not affected by particular group membership. (35-item bibliogr.)—*A. S. Thompson*.

5730. Sydiaha, Daniel. (U. Saskatchewan) **Interviewer consistency in the use of empathic models in personnel selection.** *J. appl. Psychol.*, 1962, 46(5), 344-349.—Personnel selection interviewers predicted the responses of applicants to 2 paper and pencil tests. Comparisons were made between these predictions and the responses of applicants (accuracy score), predictions and the responses of interviewers (similarity score). (These scores were referred to collectively as empathy scores.) Statistical analysis of empathy scores and their components indicated marked inter-interviewer inconsistency, which was interpreted to mean that interviewers tend to make errors by resorting to empathy as a basis of decision making. Explicit, actuarial bases of decision making in interviewing are advocated. Results of a follow-up study supported this interpretation.—*Journal abstract*.

5731. Tromp, J. **Selection of apprentices for the South African Air Force.** *Psychol. Afr.*, 1962, 9, 60-62.—The validity of the training program for apprentices was studied together with the validity of 9 tests and an interview used in personnel selection ($N = 92$). "There is significant positive correlation between the different training phases and certain arbitrary criteria. . . all training phase results . . . tend to have a low correlation with the Air Force Trade Test. . . the predictive value of the Artisan Test Battery . . . appears to be satisfactory. . . aptitude for practical work as measured by supervisor assessment cannot be predicated successfully either by test scores or by results from . . . examinations themselves."—*J. L. Walker*.

5732. Tromp, J. **Selection of South African Air Force fighter controllers.** *Psychol. Afr.*, 1962, 9, 67-71.—A test battery developed for the selection of ground control interception operators "predicts the theoretical as well as the practical aspects of the criterion with a satisfactory degree of accuracy [$N = 51$]." The criteria are the training results at different stages of a course offered to these men.—*J. L. Walker*.

5733. Walther, Regis H. (Dept. State, Washington, D. C.) **Self-description as a predictor of rate of promotion of junior Foreign Service Officers.**

J. appl. Psychol., 1962, 46(5), 314-316.—An experiment to determine relationship between responses to an attitude, interests, and background questionnaire, and rate of promotion of Foreign Service Officers. Ss, who had completed an 89-item questionnaire May 1958, were divided first into an experimental group ($N=20$) and a cross-validation group ($N=49$), and then into high and low groups on the basis of promotions as of January 1961. Of the scales developed from previous studies, only the Social Isolation one proved to be useful. However, 2 new elements, Optimism and Self-Potency, proved to be effective measures for predicting the criterion. A correlation of .60 was found between the combined scores on these 3 elements and speed of promotion for the cross-validation group.—*Journal abstract.*

5734. Waters, L. K., & Wherry, R. J., Jr. (USN School Aviation Medicine) **Evaluation of two forced-choice response formats.** *Personnel Psychol.*, 1961, 14(4), 285-289.—The reactions of a sample of 188 flight candidates in the USN Pre-Flight School were used to investigate the effect of response format on S resistance to a forced-choice self-rating scale. The Ss were found to be more favorable toward a response format allowing them to indicate the degree of applicability of each statement in the forced choice pairs, even though they were still forced to choose one statement as relatively more applicable.—A. S. Thompson.

5735. Wendt, R. A. **A culture-common test of intelligence: The development of the Select-R Test.** In Frank Geldard (Ed.), *Defence psychology* (see 37: 4053). Pp. 40-52.—The construction of a 65-item test for use in screening Canadian Army recruits is described, along with procedures adopted to insure validity and reliability. It was found to have "useful validity and satisfactory reliability" for the purposes for which it was designed. Further, its use over extended periods of time with diverse samples, both military and nonmilitary, indicated its applicability to English-speaking populations from various parts of Canada (including isolated communities), to French-speaking peoples, and to foreign-born adults regardless of education levels.—G. H. Mowbray.

5736. Wernimont, Paul F. (U. Minnesota) **Re-evaluation of a weighted application blank for office personnel.** *J. appl. Psychol.*, 1962, 46(6), 417-419.—The validity of weighted application blank scores in predicting length of service of female office personnel of a large midwestern manufacturing company showed a slow but consistent decline from 1954 to 1959. After reweighting the application blank variables by the usual procedure, a Pearson r of .39 was obtained between WAB scores and tenure on a cross-validation sample of 208 individuals. Only 3 variables (high proficiency at shorthand; did not leave last job because of pregnancy, marriage, sickness, or home problems; and will begin work on the new job 1 week or more from now) retained their predictive validity from 1954 to 1959. Some of the variables were assigned different weights, and others were given weights for the 1st time. It was recommended that weights assigned to application blank responses be reviewed at least every 3-5 years.—*Journal abstract.*

5737. Van Lierde, Anne-Marie. **Essai de validation d'un test de surveillance sur une population**

de chauffeurs d'autobus. [An essay on the validation of an inspection test used with bus drivers.] *Bull. Cent. Etud. Rech. Psychotech.*, 1961, 10(2), 193-205.—A special apparatus devised by Faverge to test drivers was used with bus drivers and workshop men. The drivers were on the average superior to the workshop men. Drivers with few accidents were compared with drivers who had a number of accidents. Differences in performance were found to be significant.—V. Sanua.

TRAINING

5738. Bass, Bernard M. (U. Pittsburgh) **Mood changes during training laboratory.** *J. appl. Psychol.*, 1962, 46(5), 361-364.—30 trainees completed a mood adjective check list at 5 periods during a 10-day sensitivity training laboratory for management. Results indicated that differences and predictable shifts in mood do occur. Specifically, skepticism and anxiety decreased as most trainers would expect; other moods, like depression and aggression, showed the effects of particular laboratory procedures. The results also provided independent evidence of the validity of the factored Nowlis and Green check list of mood adjectives. Findings generally were consistent with trainer beliefs about mood changes in trainees and conformed to expectations about the effects on mood of defeat or victory in intergroup competition.—*Journal abstract.*

5739. Berger, Richard A. (Texas Technological Coll.) **Comparison of static and dynamic strength increases.** *Res. Quart. Amer. Ass. Hlth. Phys. Educ. Recr.*, 1962, 33(3), 329-333.—This study determined the changes in dynamic strength produced by static training and, conversely, the changes in static strength produced by dynamic training. Static strength improved significantly more by training statically than dynamically, and, conversely, dynamic strength improved significantly more by training dynamically than statically. There was no significant relationship between improvement in static and dynamic strength.—*Journal abstract.*

5740. Berger, Richard A. (Texas Technological Coll.) **Optimum repetitions for the development of strength.** *Res. Quart. Amer. Ass. Hlth. Phys. Educ. Recr.*, 1962, 33(3), 334-338.—The purpose of the study was to determine the optimum number of repetitions with which to train for quickest strength improvement. 9 groups, consisting of a total of 199 male college students, were tested before and after 12 weeks of progressive resistance exercise. Each group trained differently in repetitions per set. Resistances employed were 2 RM, 4 RM, 8 RM, 10 RM, and 12 RM for one set. The optimum number of repetitions was found to be between 3 and 9.—*Journal abstract.*

5741. Bryan, Glenn L. **Training of electronics maintenance technicians.** In Frank Geldard (Ed.), *Defence psychology* (see 37: 4055). Pp. 150-160.—An attempt is made to present a trouble-shooting rationale. "Analysis of present training courses and the weaknesses of present school graduates have both suggested the need for substantial revisions of training procedures. Recent successes of various synthetic devices and the demonstrated advantages of certain feedback techniques have been cited as attrac-

tive bases for the necessary modifications."—G. H. Mowbray.

5742. Campbell, Robert L. (Winona State Coll.) **Effects of supplemental weight training on the physical fitness of athletic squads.** *Res. Quar. Amer. Ass. Hlth. Phys. Educ. Recr.*, 1962, 33(3), 343-348.—The purpose of this study was to determine how weight training affected the physical fitness of football, basketball, and track and field squads when it was used as a supplement to normal training during different halves of the season. In each sport the athletes were divided into 2 matched groups: one did weight training during the 1st ½ of the season only, and the other group during the 2nd ½ only. In general, the resulting statistics show that weight training adds significantly to the physical fitness produced by normal training (16 ref.).—*Journal abstract.*

5743. Demaree, Robert G. **Development of training equipment planning information.** *USAF ASD tech. Rep.*, 1961, No. 61-533. vi, 101 p.—In the development of Air Force Systems, the timely procurement and delivery of training equipment is essential. Many human factors and engineering considerations enter into the determination as to what items of training equipment will best serve the purposes of a particular system. This report attempts to take proper account of both the engineering and human factors considerations but places special emphasis upon the latter. The report is divided into 7 sections entitled: "Introduction," "An Overview of Training Equipment Planning," "Training Functions for Various Types of Training Equipment," "Training Equipment Costs," and "TEPI Development." The appendices cover: "Explanation of Terms," "The Personnel Subsystem and Its Elements," and a selected bibliography. Liberal use is made of graphic and tabular presentations to illustrate the principles presented.—*USAF ASD.*

5744. Eckstrand, Gordon A., & Rockway, Marty R. **Spacecrew training: A review of progress and prospects.** *USAF ASD tech. Rep.*, 1961, No. 61-721. iv, 23 p.—This report reviews current progress and future prospects in the field of spacecrew training. Descriptions of all current astronaut training programs are presented, and a number of general conclusions with reference to such training are drawn, based upon the manned space operations which have been conducted to date. In addition to the actual experience which has been gained in training spacecrew personnel, a review is presented of recently completed and current research which is directly relevant to this problem. Several areas in which research should be accelerated are identified.—*USAF ASD.*

5745. Eckstrand, Gordon A., Rockway, Marty R., Kopstein, Felix F., & Morgan, Ross L. **Teaching machines in the modern military organization.** In Frank Geldard (Ed.), *Defence psychology* (see 37: 4053). Pp. 170-196.—A survey of some representative teaching machines available to the services and a rationale for their use to alleviate some of the training problems that beset the modern military organization. Some discussion is given to the need for research on teaching machines, particularly as regards effective information display and the proper use and application of such devices.—G. H. Mowbray.

5746. Ekman, P., Friesen, W. V., & Lutzker, D. R. (U. California School Medicine) **Psychological**

reactions to infantry basic training. *J. consult. Psychol.*, 1962, 26(1), 103-104.—MMPI is given to recruits in 1st, 4th, and 8th week of basic training. The 8th week group is more willing to admit mild antisocial behavior. The changes imply "more callous attitudes, a tendency to ignore the needs of others, and feelings of self-importance increase slightly . . . less prone to examine their own responsibility for conflicts, and more ready to react aggressively."—E. R. Oetting.

5747. Haggard, Donald F., & Shock, Ronald G. **The effectiveness of visual demonstrations of signs of malfunction and wear in quipment.** *HumRRO res. Memo.*, 1962, Subtask Mobility VI, Task 11-23, 26 p.—2 photographic training aids, in handbook and slide forms, were compared for detection of malfunction and wear in armor equipment. The "principal role of such demonstration seems to be to supplement verbal description through repetition, thereby possibly increasing retention." Copy of illustrated maintenance handbook.—R. Tyson.

5748. Havron, M. Dean. **Military tradition and scientific progress.** In Frank Geldard (Ed.), *Defence psychology* (see 37: 4053). Pp. 302-311.—Research on methods of training 9-man rifle squads led to some major insights into traditional training techniques and to some new and demonstrably superior methods. One important outcome was the demonstration that flexibility in leadership practices based on generalized concepts of leadership can improve the performance of groups led by men of only average ability.—G. H. Mowbray.

5749. Krumm, Richard L., & Farina, Alfred J. **Effectiveness of integrated flight simulator training in promoting B-52 crew coordination.** *USAF MRL tech. docum. Rep.*, 1962, No. 62-1. v, 79.—This report represents the findings of a study designed to assess the value of a B-52 flight simulator electronically linked to a T-2a navigator trainer in promoting crew coordination. 75 SAC aircrews undergoing B-52 transition training at Castle Air Force Base were used as Ss. Integrated and nonintegrated simulator training of these crews was contrasted. The results as indicated by certain of the measures used enable a favorable recommendation to be made regarding the effectiveness of the B-52 integrated crew trainer. In the report, special attention is devoted to a discussion of 2 aspects of communication, pattern and volume, and the relation of these aspects to crew coordination.—*USAF MRL.*

5750. McMahon, Denis. (U. Edinburgh) **An international study of the conditions for effective military training.** In Frank Geldard (Ed.), *Defence psychology* (see 37: 4053). Pp. 107-112.—An investigation into the relationship between length of service and military efficiency conducted at the request of SHAPE on NATO armies in the field. By a combination of objective interviews and conferences with commanders, a method was evolved for determining the length of training time required for units to reach a plateau of efficiency. It was concluded that under normal conditions 12 months training were required for ordinary troops and 18 months for detachment commanders.—G. H. Mowbray.

5751. Prien, Erich P., & Powell, David R. (Western Reserve U.) **A study of the director's functions.** *J. Amer. Soc. Train. Directors*, 1961, 15

(4), 12-17.—Responses of 24 training directors and their superiors to a 125-item position-description questionnaire were correlated across all items. An inverse centroid factor analysis was performed which yielded 10 factors which were named: General Administrative Duties; Preparation and Execution of Management Training Activities; Public Relations Aspect of the Training Director's Job; Planning Necessary for Effective Training; Stimulating Safety Behavior and Safety Consciousness; Personnel Administration and Supervision of Trainees; Personnel Activities Not Related to the Training Function; Responsibility, as a Member of the Management Team, to Promote the Company; Evaluation of Trainees by the Training Director; and, tentatively, Self-improvement. Superior-subordinate agreement was greatest for factors which involve training directly, while disagreement was greatest for factors unrelated to training.—*Author abstract.*

5752. Siskel, Maurice, Jr., & Smith, Wayne D. A preliminary training study of the H-34 cockpit procedure trainer. *HumRRO res. Memo.*, 1960, Subtask Reflect I. ii, 20 p.—An experiment supported the value of 3 pre-aircraft training hours in the H-34 cockpit procedures trainer for learning H-34 helicopter operations.—*R. Tyson.*

5753. Sloan, E. P. RCAF experience with the training of NATO aircrew. In Frank Geldard (Ed.), *Defence psychology* (see 37: 4053). Pp. 113-126.—Canada, as part of her contribution to the North Atlantic Treaty Organization, undertook to provide aircrew training for NATO member nations. This is an account of the experience gained in that program since 1950, with suggestions as to how increased cooperation among member nations could serve to increase the efficiency of training programs in general. A specific plea is made for greater contact between defense psychologists, particularly in the areas of aptitude testing and test validation.—*G. H. Mowbray.*

5754. van Rooyen, J., & Cortis, L. E. Opleiding van voorman: Navorsing oor die waarde van "training-within-industry"-kursusse as opleidingsstegniek. [An investigation of the value of the training within industry" course as a technique in training supervisors.] *Psychol. Afr.*, 1962, 9, 176-188.—Trainers and supervisors in the mining industry were given a training within industry (TWI) course. Their achievement was compared with scores on intelligence tests and with the achievement of trainers in the same industry. Short courses given supervisors did not improve their knowledge of TWI principles. Trainers achieved more effectively than supervisors and were more systematic in their approach to problem solving. All measures of learning the principles discriminated between supervisors and trainers. These measures also correlated positively with each other and with tests of abstract intelligence.—*J. L. Walker.*

5755. Wolff, Peter C., Burnstein, David D., & Van Loo, Joseph A. Target detection: VI. The effects of schedules of collective reinforcement on a class during training in target detection. *HumRRO res. Memo.*, 1962, Subtask Firepower IV, Task 11-26. ii, 14 p.—Group training with slide material proved equal to individual training in target detec-

tion. A graded sequence in terms of difficulty is preferable.—*R. Tyson.*

5756. Woolman, Myron. On-site training of guided missile operators: Evaluation materials. *HumRRO res. Memo.*, 1960, Task Lock-on I. 74 p.—Research, methods, forms, and tests relating to guided missile operator training are presented in detail.—*R. Tyson.*

TASK & WORK ANALYSIS

5757. Adams, Oscar S., & Chiles, W. Dean. Human performance as a function of the work-rest ratio during prolonged confinement. *USAF ASD tech. Rep.*, 1961, No. 61-720. iii, 44 p.—The purpose of this study was to investigate the feasibility of using a 4-hours-on-duty and 2-hours-off-duty schedule in the operation of advanced aerospace systems. 2 B-52 combat ready crews were confined for 15 days in a simulated advanced system crew compartment and were tested with a battery of 5 performance tasks and 4 psychophysiological measures. Data obtained during 2 15-day testing periods are summarized in the main body of this report. Additional performance data obtained from 5 studies using college student Ss are presented in appended sections of this report. These results are based on 4 96-hour investigations (2 with a 4-on and 2-off schedule and 2 with a 6-on and 2-off schedule) and 1 120-hour control group study (4 hours per day, 5 days per week, for 6 weeks). With proper control of selection and motivational factors, crews can work effectively for periods of at least 2 weeks and possibly longer using a 4-on and 2-off work-rest schedule.—*USAF ASD.*

5758. Bergum, Bruce O., & Lehr, Donald J. (USA Air Defense Human Research Unit, Fort Bliss, Tex.) Vigilance performance as a function of interpolated rest. *J. appl. Psychol.*, 1962, 46(6), 425-427.—2 experiments were performed on the effects of interpolated rest upon monitoring performance at both high and low signal rates. Experiment I employed 2 groups of 20 Ss each; Experiment II employed 2 groups of 10 Ss each. One group of Ss worked on a light monitoring task for 3 30-min. periods separated by 10-min. rest periods. The 2nd group worked continuously for 90 min. on the same task. Experiment I employed 24 signals/hr.; Experiment II employed 6 signals/hr. The results indicated a highly significant facilitation of detection performance as a result of interpolated rest at both signal rates and demonstrate the effectiveness of relatively brief rest intervals in maintaining high performance even with low signal rates.—*Journal abstract.*

5759. Bergum, Bruce O., & Lehr, Donald J. (USA Air Defense Human Research Unit, Fort Bliss, Tex.) Vigilance performance as a function of paired monitoring. *J. appl. Psychol.*, 1962, 46(5), 341-343.—2 experiments were performed to determine the effect of pairing of Os upon individual monitoring performances. Both studies employed 2 groups of 20 Ss each. Group 1 consisted of paired monitors and Group 2 consisted of isolated monitors. Experiment I employed a rate of 24 signals/hr.; Experiment II employed a rate of 6 signals/hr. All Ss monitored a circular light display for a period of 90 min. Neither experiment indicated an overall facilitation of performance resulting from pairing, but both demonstrated significant relationships between per-

formances on the members of the pairs. It was hypothesized that the degree of conversational interaction between members of the pairs might account for the observed effect.—*Journal abstract.*

5760. Fitts, Paul M. (U. Michigan) **Military skills in a changing technology.** In Frank Geldard (Ed.), *Defence psychology* (see 37: 4053). Pp. 99-103.—A discussion of the evolution of skills required by modern weapon technology.—G. H. Mowbray.

5761. Folley, John D. **Research problems in the design of performance aids.** *USAF ASD tech. Rep.*, 1961, No. 61-548. vi, 51 p.—Performance aids are auxiliary devices provided to facilitate on-the-job performance by humans in man-machine systems. They may be included in the system at any stage of development, with their potential contribution greater if they are considered early, diminishing as their inclusion is delayed to later stages of system evolution. A number of research problems identified during preparation of a procedure for incorporating performance aids into systems are presented under 5 major headings that denote the logical steps involved in designing aids and integrating them into a system. Few of the issues and problems are new. Viewing them from the point of regard of performance aids, however, may provide a new emphasis and a new approach to the problems. Preliminary ideas on approaches to some of the problems are provided. The point is made that programmatic, multivariate research studies are needed to make significant progress on the problems.—*USAF ASD.*

5762. Itel'son, L. B. **Kibernetika i voprosy psikhologii truda.** [Cybernetics and problems in the psychology of the work.] *Vop. Filos.*, 1962, 16(4), 32-46.—The author deals with the possibilities of the cybernetic approach for the development and application of objective mathematical methods of research in the psychology of work. Although the cybernetic approach has its limits, it enables one to secure valuable results for solving the practical problems of mutual adaptation of machine and man and those of construction of regulators that simulate certain aspects of man's "controlling activity."—I. D. London.

5763. Klemmer, E. T., & Lockhead, G. R. (IBM, Yorktown Heights, N. Y.) **Productivity and errors in two keying tasks: A field study.** *J. appl. Psychol.*, 1962, 46(6), 401-408.—Productivity and error rates were measured for a billion responses by more than a thousand operators of IBM card punches and bank proof machines in 20 different installations. Productivity increases and errors decrease during the 1st year on the job, sometimes longer. Experienced card punch operators average 56,000 to 83,000 key-strokes per day with 1600 to 4300 strokes per undetected error. Experienced bank proof machine operators average 4350 to 6600 checks per day with about 3500 checks per undetected error. The fastest operators at any installation produce twice as much as the slowest. The least accurate operators make 10 times as many errors as the most accurate. Fast operators tend to make fewer errors ($r = -.5$).—*Journal abstract.*

5764. Kosilov, S. A. (RSFSR Acad. Pedagogical Sciences) **Fiziologiya vysshei nervnoi deiatel'nosti i trudovye protsessy.** [Physiology of higher nervous activity and work processes.] *Zh. vyssh. nervn. Deiatel.*, 1962, 12(3), 361-370.—Study of higher

nervous activity can shed light on the problems and processes of human work. In the development of human work appear the same laws which regulate the formation of CR, such as closing and reinforcement, concentration of nervous processes, and formation of a dominant and dynamic stereotype. Some experimental evidence is presented to this purpose.—A. Cuk.

5765. Miller, Irwin, & Freund, John E. **Investigation of spectral estimation.** *USAF ASD tech. Rep.*, 1961, No. 61-714. iii, 42 p.—Several problems of spectral estimation relevant to the determination of human-operator response characteristics were investigated. Techniques for analyzing the relationships among a set of stochastic processes are described, and the distribution of proposed spectral estimators is discussed. Tests for normality and stationarity are developed. A discussion of the analysis of multi-component systems concludes the report.—*USAF ASD.*

5766. Morsh, Joseph E. **Job analysis bibliography.** *USAF PRL tech. docum. Rep.*, 1962, No. 62-2. iv, 59 p.—The bibliography lists 1500 titles appearing between 1911 and 1961. It is especially comprehensive in its coverage of papers, both published and unpublished, issued by Department of Defense agencies and their contractors. Entries are indexed by subject.—*USAF PRL.*

5767. Rüssel, Arnulf. (Lachmannstr. 8, Braunschweig) **Belastung und Ermüdung an unterschiedlichen Arbeitsplätzen.** [Stress and fatigue at different places of work.] *Z. exp. angew. Psychol.*, 1962, 9(11), 12-54.—In a laboratory setting 3 different jobs were observed: a) control of multiple instruments on a panel, a task which involved simple and complex reactions to visual and auditory signals occurring at various delays; b) checking punched cards against a listing; and c) assembling some plates with screws and nuts with a tolerance of ± 1 mm. Reactions to upper frequencies of auditory stimuli and the accurateness of rhythm reproduction served as fatigue measures. The results show that the first task is the most difficult one and prone to considerable deterioration. Consequences of the results with respect to a theory of stress and with respect to practical applications are discussed.—W. J. Koppitz.

5768. Schultz, D. G., & Siegel, A. I. **Post-training performance criterion development and application: A multidimensional scaling analysis of the job performance of naval aviation electronics technicians.** Wayne, Pa.: Applied Psychological Services, 1962. vii, 48 p.—This research delved into the application of multi-dimensional scaling procedures to a job task constellation, the methods for applying these techniques in the work oriented situation, and the dimensions of the aviation electronics technician's job. A number of issues relating to the application of multidimensional scaling procedures to job performance measurement are discussed.—P. Federman.

5769. Siegel, A. I., Wolf, J. J., & Sorenson, R. T. **Techniques for evaluating operator loading in man-machine systems: Evaluation of a one or a two-operator system evaluative model through a controlled laboratory test.** Wayne, Pa.: Applied Psychological Services, 1962. vi, 87 p.—A test of the validity of a digital computer model for simulating a 2-operator man-machine task is described. The task involved team and individual branching, operator

stress build-up, looping, cooperative work, communication, and waiting. On the basis of nonstatistically significant differences between the task success proportions achieved by laboratory teams and the model's predictions of these proportions as well as arithmetic mean differences between the actual and predicted times for task performance, it was concluded that support is gained for a contention favoring the validity of the model.—*P. Federman*.

5770. Siegel, Arthur I., & Schultz, Douglas G. (Applied Psychology Service, Wayne, Pa.) **Thurstone and Guttman scaling of job related technical skills.** *Psychol. Rep.*, 1962, 10, 855-861.—"Working within the Naval job specialty (rating) of aviation machinist's mate, it has been demonstrated that check lists of tasks normally performed by strikers (trained men of minimum job experience) in this specialty can be scaled by both the Thurstone and Guttman techniques. Two different types of check lists were developed; the checkout type appeared to be less satisfactory from the standpoint of scalability, than the in-service training type. . . . Although aptitude tests were predictive of achievement in the Naval training school basic to the job specialty, neither the tests nor school achievement appeared to be related to the Guttman scales. . . . The finding of task scalability seems to indicate an aspect of the structure of the job, as well as to provide a basis for the construction of short, convenient job performance evaluation instruments."—*B. J. House*.

WORK ENVIRONMENT & PERFORMANCE

5771. Coermann, Rolf R. **Mechanical impedance of the human body in sitting and standing position at low frequencies.** *USAF ASD tech. Rep.*, 1961, No. 61-492. vi, 39 p.—The theory of mechanical impedance of systems with 1 or more degrees of freedom is applied to the human body. A method of measuring mechanical impedance and determining parameters of the vibrating systems is developed. Impedance curves for longitudinal vibrations of a sitting and standing Ss are established for the frequency range of 1-20 cps. The influence of varied posture and restraining systems is investigated. Dynamic movements of body parts are measured, directly or indirectly, and compared with the impedance curves. The responsible elements in the body for the apparent resonances are identified. Correlations between the impedance function of the body and the subjective tolerance curve to vibration are found and the reasons for the tolerance limits are elucidated. The variability of subjective tolerances due to varying posture, restraining systems, cushions, duration of exposure, and vibrations are discussed, and conclusions for the development of projective devices are drawn. The correlation between the steady state response of the human body system and the effects of impact is discussed.—*USAF ASD*.

5772. Dunn, J. M. **Psychomotor functioning while breathing varying partial pressures of oxygen-nitrogen.** *USAF SAM Rep.*, 1962, No. 62-82. 11 p.—70 male Ss worked on a compensatory pursuit task (USAF SAM Multidimensional Pursuit Test—CM813E) for 4 consecutive hours. Nitrogen content in gas breathed was varied. Variations in nitrogen partial pressure were not accompanied by variations in performance. Increasing partial pressure of oxy-

gen increased Ss' ability to resist work decrement.—*M. C. Payne, Jr.*

5773. Grunske, M. E., Rohles, F. H., Jr., Belleville, R. E., & Wilson, G. L. **Chimpanzee performance on a two-dimensional discrete tracking task.** *USAF ARL tech. docum. Rep.*, 1962, No. 62-16. 19 p.—A chimpanzee was trained to perform a 2-dimensional discrete tracking task with 25 target positions in each dimension. Performance required manipulation of 2 levers to align the tracking indicators with the target. Subsequent to this, the operation of a 3rd lever resulted in the delivery of a food pellet reward and presentation of a new set of targets to be matched.—*USAF ARL*.

5774. Hammer, Lois R. **Aeronautical systems division studies in weightlessness.** *USAF WADD tech. Rep.*, 1961, No. 60-715. viii, 93 p.—Facilities and techniques used at Aeronautical Systems Division to study the effects of weightlessness are described; completed experiments and those started before January 1961 are discussed. Topics are grouped under 2 main headings: Aerospace Medical Studies and Aeromechanics Studies. Specific problem areas and methods of experimentation are emphasized. Findings are briefly stated.—*USAF WADD*.

5775. Hornick, Richard J. (Bostrom Research Lab., Milwaukee, Wis.) **Effects of whole-body vibration in three directions upon human performance.** *J. engng. Psychol.*, 1962, 1(3), 93-101.—Compensatory tracking ability, choice reaction time (RT), foot pressure constancy, peripheral vision, and visual acuity were measured before, during, and after exposure to vibration (frequencies from 1.5 to 5.5 cps; intensities of 0.15, 0.25, and 0.35 g peak acceleration). Significant impairment was noted in tracking, RT, foot pressure, and peripheral vision during and following exposure, supporting the conclusion that the low frequency vibration found in many ground and air vehicles can cause decrements in vehicle control performance.—*D. C. Hodge*.

5776. Kaehler, Richard C. **The effects of transverse accelerations and exponential time-lag constants on compensatory tracking performance.** *USAF ASD tech. Rep.*, 1961, No. 61-457. vi, 34 p.—A study was conducted to determine the effects and interactions of front-to-back transverse accelerations, in the magnitudes of 0 g, 3 g, and 6 g, and exponential time-lag constants of 0.1, 1.0 and 2.0 seconds on human control performance on a compensatory tracking task. In general, the results substantiated predictions of human tracking performance based on Helson's U-hypothesis and Principle of Generality. Concepts from information theory are introduced to explain certain learning phenomena which occurred in the course of the experiment.—*USAF ASD*.

5777. Kama, William N. **Effects of simulated weightlessness upon positioning responses.** *USAF ASD tech. Rep.*, 1961, No. 61-555. iii, 12 p.—The speed and accuracy of positioning movements as functions of distance, direction, and mass were investigated under simulated weightless conditions. Ss seated on a frictionless device made blind positioning movements by sliding each of 2 frictionless masses (1000 or 7000 grams) various distances (10, 20, and 40 cm.) either left-to-right or near-to-far. Both speed and accuracy decrease with distance; left-to-right movements take longer, but are more accurate

than near-to-far movements. Speed decreases with increased mass. With minor exceptions, the effects are similar to those noted when fixed Ss position weightless objects. The responses of fixed Ss were slower, but more accurate, and were not affected by the variable of mass.—*USAF ASD*.

5778. Kamchatnov, V. P. (Medical Inst., Kazan, USSR) *Issledovanie vyssheĭ nervnoi deiatel'nosti u liudeĭ, rabotaiushchikh v absoliutnoi temnote i na svetu*. [Higher nervous activity in people working in complete darkness and in light.] *Zh. vyssh. nervn. Deiatel.*, 1962, 12(2), 208-212.—40 women working in complete darkness and a control group of 29 women working in light were conditioned by means of Ivanov-Smolenskii motor technique. It was found that the experimental group showed some typical features, such as an increased RT, a greater number of disinhibited differentiations, and a pronounced successive inhibition. This was explained in terms of a gradual decrease in the cortical tone and a disturbed equilibrium between the basic cortical nervous processes.—*A. Cuk*.

5779. Rholes, F. H., Reynolds, H. H., Grunzke, M. E., & Farrer, D. N. A performance schedule for extended space flight with the chimpanzee. *USAF ARL tech. docum. Rep.*, 1962, No. 62-14. 11 p.—This report describes a schedule designed for measuring animal performance during space flight which is oriented toward sampling simple motor behavior and visual and auditory monitoring, as well as requiring performance for food and water. Employment of this schedule should facilitate the animal to human extrapolation.—*USAF ARL*.

5780. Rohles, F. H., Jr., Grunzke, M. E., & Reynolds, H. H. A detailed account of chimpanzee performance during the ballistic and orbital Project Mercury flights. *USAF ARL tech. docum. Rep.*, 1962, No. 62-15. 36 p.—2 space flights with chimpanzees were made as part of the Project Mercury program. In the 1st flight the S was placed through a ballistic trajectory and during the flight had to perform a continuous and discrete avoidance task. During a 2nd flight in which the capsule orbited the earth twice, a chimpanzee had to perform a complex multiple operant task.—*USAF ARL*.

5781. Steele, Jack E. Motion sickness and spatial perception. *USAF ASD tech. Rep.*, 1961, No. 61-530. iv, 23 p.—Theories of motion sickness are reviewed and compared with a new theory in which the activity of the central nervous system is more important than the intensity or modality of sensory stimulation. Concepts treated are the development and validation of an intertrial reference frame; the perceptual transformation of sensory data, which reduces its content, increases its reliability and can incorporate compensations for environmental variables, and the consequences of perceptual inadequacy.—*USAF ASD*.

5782. Steininger, Konrad. (Moorreye 43, Hamburg) *Aktuelle, luftfahrtpsychologische Probleme*. [Topical problems in aviation psychology.] *Z. exp. angew. Psychol.*, 1962, 9(1), 104-139.—Perceptual problems and psychological adaptation to the changed physical conditions of the flight situation form the core of the problems that must be considered in the selection of flight personnel. A close cooperation be-

tween psychology and medicine is advocated for effective research in this area.—*W. J. Koppitz*.

5783. Thompson Ramo Wooldridge. (Cleveland, O.) *Propellant-atmosphere system study*. *USAF WADD tech. Rep.*, 1961, No. 60-622. xiv, 222 p.—2 broad aspects of using chemical energy to provide metabolic oxygen in a manned space capsule were studied: man's ecological requirements and supply of auxiliary power. The studies were restricted to chemicals used in propulsion systems with emphasis on by-products useful to man. A survey of methods for meeting environmental requirements included evaluation of (a) passive temperature control in terms of capsule size, shape, surface emissivity, orbital altitude, orientation, and internally generated power and (b) weight and energy requirements for supplying oxygen, dehumidifying, and removing CO₂ in the cabin. The best of 40 fuels and 35 oxidizers were screened for other important factors. The unique adaptability of the cryogenic hydrogen-oxygen fuel system was demonstrated. This system combined with a hydroxy fuel cell was used in developing a prototype designed to accommodate 1 man for 3 days and to supply 1 kilowatt of electric power. The prototype included optimization studies of the cryogenic storage system, an air-conditioning system, and a fuel cell power system.—*USAF WADD*.

MOTIVATION, ATTITUDES, TRAITS

5784. Bhatt, L. J. Incentives and the working class. *Psychol. Stud., Mysore*, 1962, 7(2), 55-61.—Some studies on incentives have shown that 9 incentives are important in industry: security, wages, advancement, benefits and working conditions, type of work, hours of work, supervisor, co-workers, and holidays. The most preferred were choice of work, advancement, and co-worker. These were followed by wages, conditions of work, and supervisor.—*U. Pareek*.

5785. De Brisson de Laroche. Evolution de la motivation pour le pilotage de chasse. [Evolution of motivation in the fighter pilot.] In Frank Geldard (Ed.), *Defence psychology* (see 37: 4053). Pp. 127-133.—A longitudinal study of the factors that motivate a fighter pilot throughout the course of his career. Certain attitudes of pilot candidates, interpreted as the "love of taking risks," are transformed in experienced pilots into "denial of fatigue or anxiety." The more individualistic motivations of younger pilots are channeled by group influences into the "esprit de corps" associated with the well-trained squadron.—*G. H. Mowbray*.

5786. England, G. W., & Stein, C. I. (U. Minnesota) The occupational reference group: A neglected concept in employee attitude studies. *Personnel Psychol.*, 1961, 14(4), 299-304.—Analysis of attitude questionnaire responses of 3207 employees in 26 firms revealed large occupational differences in terms of item responses. This finding points to the need for special scales for different occupational groups, for controlling for occupation before relating attitudes to criteria, and for occupational norms.—*A. S. Thompson*.

5787. Greene, J. E., Sr., & Greene, J. E., Jr. (Georgia State Coll. Business Administration) Illustrative uses of the "incomplete" sentence technique in investigating certain attitudes of middle

management personnel. *Personnel Psychol.*, 1961, 14(4), 305-316.—Incomplete sentence responses of a group of middle management participants in a management development conference and of their superiors were analyzed to study attitudes related to the management training program, individual and company morale, and self-perceptions of role. The procedure for analysis, scoring, and treatment of the data are given as illustrative of this technique.—A. S. Thompson.

5788. Misiti, Raffaello. *Sujets faciles et difficiles dans la prédiction d'adaptation à la vie militaire.* [Easy and difficult cases in the prediction of adaptation to military life.] In Frank Geldard (Ed.), *Defence psychology* (see 37: 4053). Pp. 30-39.—An experiment designed to investigate the predictive validity of measures of adaptation of recruits to military life. A battery of tests administered prior to training yielded multiple correlations of .51 with classification at the end of the 1st year of training and .48 at the end of the 2nd year. It was possible to divide the trainees into 3 groups on the basis of how well the tests predicted their success or failure. An analysis is given of how nonquantitative measures might be used to reduce the variability of prediction.—G. H. Mowbray.

5789. Porter, Lyman W. (U. California, Berkeley) *Job attitudes in management: I. Perceived deficiencies in need fulfillment as a function of job level.* *J. appl. Psychol.*, 1962, 46(6), 375-384.—This questionnaire study investigated perceived need fulfillment deficiencies in nearly 2000 managerial positions. Respondents represented all levels of management and a wide variety of companies. 5 need categories, chosen to represent a hierarchy of prepotency of needs, were studied. Results showed: (a) Vertical level of position within management had a strong relation to the degree of perceived satisfaction of the 3 highest-order needs—Self-actualization, Autonomy, and Esteem; for these needs, satisfactions increased at each higher level of management. (b) For the 2 lower-order types of needs, Security and Social, there were no systematic changes in satisfaction in relation to management level. (c) Among the 5 need categories, Self-actualization and Autonomy were consistently regarded as the least fulfilled needs at all levels of management.—*Journal abstract.*

5790. Stoetzel, J. *Structure d'un système de valeurs et situation des valeurs relatives à la défense nationale dans cette structure.* [Structure of a system of values and the position in this structure of values relative to national defence.] In Frank Geldard (Ed.), *Defence psychology* (see 37: 4053). Pp. 325-344.—A description of some preliminary studies and 1 principle study whose goal was to gather as much and as varied information as possible concerning the different domains in which values of the French population are expressed, and to define, as precisely as possible, what "national defense" means to the public at large. 3 different approaches were used: (a) a public opinion poll of 800 young people who had recently terminated their military service, (b) the administration of the Allport and Gillespie test to 600 future officers, and (c) depth interviews by psychologists of a sample of 100 workmen and 100 rural people. An extended discussion of the results is given with an outline of the kinds of future research required.—G. H. Mowbray.

5791. Welford, A. T. (St. John's Coll., Cambridge, England) *On the human demands of automation: Mental work, conceptual models, satisfaction and training.* In G. Nielson (Ed.), *Proceedings of the XIV International Congress of Applied Psychology. Vol. 5. Industrial and business psychology* (see 37: 4120). Pp. 182-193.—These 4 matters seem of especial interest in considering problems of automation because they impinge strongly upon people. Each is discussed.—B. T. Jensen.

MANAGEMENT & ORGANIZATION

5792. Albers, H. H. (State U. Iowa) *Organized executive action: Decision-making, communication, and leadership.* New York: Wiley, 1961. xxi, 604 p. \$8.50.—Designed to serve the needs of a course in general management in colleges of business administration, engineering, and liberal arts, this book emphasizes factors common to organizations in general—decision-making, communication, and leadership. The 6 parts of the book are titled: "The Management Problem: Past and Present," "Organization for Management," "Decision-Making: Planning Strategies," "Planning and Control Informational Systems," "Leadership and Motivation," and "Executive Development." A name and subject index are included.—T. J. Banta.

5793. Barkin, S. (Textile Workers Union of America) *Implications of psychology in labor-management relations (a symposium): IV. Psychology as seen by a trade-unionist.* *Personnel Psychol.*, 1961, 14(4), 259-270.—It is of great importance to psychology to restore its total objectivity by applying itself more deliberately to employee and union interests. In the past, psychology has been used primarily as a tool for differentiation among employees and jobs or in employee opinion polling to ascertain attitudes and grievances to combat unions. Positive uses of psychology are to facilitate employee development, improve working conditions, and study collective bargaining procedures. Most large unions now have a central staff person who can facilitate psychological study of internal union developments and processes, leadership roles, internal power structures, etc. Collective bargaining is vital for the realization of democratic goals and the academic disciplines can help by serving the union and its leaders as well as management.—A. S. Thompson.

5794. Blake, Robert R., Mouton, Jane S., Bidwell, Alvin C. (U. Texas) *Managerial grid. Advanc. Mgmt.-Off. Exec.*, 1962, 1(9), 12-15.—Placing 2 variables—(a) organizational needs for production and profit and (b) human needs for mature and healthy relationships—on a set of coordinates, the authors, using values of 1-9, locate 5 basic attitudes and styles of control of managers. The 5 styles they categorize as: country club management, impoverished management, dampened pendulum, team management, and task management. Generally, the best long-term production is achieved and sustained when concerns for production and for needs of people are integrated in the team direction.—E. Q. Miller.

5795. Boulding, Elise. (Ed.) (U. Michigan) *Conflict management in organizations.* Ann Arbor, Mich.: Foundation for Research on Human Behavior, 1961. ii, 72 p. \$3.00.—"A report of a Seminar conducted by the Foundation for Research on Human

Behavior in cooperation with The Center for Research on Conflict Resolution, The University of Michigan." 4 basic concepts of conflict theory are outlined: the parties to the conflict, the field of the conflict, the dynamics of the situation, and management and control. Control is achieved through a "mechanism" for avoiding "pathological" or destructive resolutions. These mechanisms are of 2 kinds: unilateral or organizational. Most resolutions are by a combination of the 2. More research is needed, and there are encouraging signs that more is coming.—*E. Q. Miller.*

5796. Broadbent, Donald E. Common principles in perception, reaction and intellectual decision. In Frank Geldard (Ed.), *Defence psychology* (see 37: 4053). Pp. 197-206.—The author draws on results of laboratory experiments in such diverse fields as risk-taking, signal detection theory, vigilance, and choice reaction times to extract a common denominator which he then relates to problems of military decision-making.—*G. H. Mowbray.*

5797. Dutch Association for Industrial Psychology. Slagen en falen. [Success and failure.] *Mens Onderneming*, 1962, 16(6), 385-393.—Success in a career was reported to be contingent on, and preferably a combination of, expert knowledge, directed energy, and common sense. Well balanced individual characteristics such as ability to synchronize identification with and objectivity towards a task were considered desirable qualities. Stressed were the executive staff's responsibility for creating promotion opportunities and flexibility, combined with well prepared employees' meetings on all levels of a concern. Individual authors are D. J. van Lennep, S. G. Lijftogt, and J. A. Hendriks.—*J. A. Lückner.*

5798. Feinberg, M. R. (City Coll. New York) Implications of psychology in labor-management relations (a symposium): I. Introduction. *Personnel Psychol.*, 1961, 14(4), 239-241.—At present, the power centers in our society are government, industry, and labor. We psychologists need to understand our relationship with these power centers. This symposium deals with the triangular relationship between management, union, and the psychologist.—*A. S. Thompson.*

5799. Gilbreth, Lillian M. (Montclair, N. J.) Work and management. *Advanc. Mgmt.—Off. Exec.*, 1962, 1(9), 23-26.—The objective of work and management remains the same: "To utilize the resources of nature and of human nature for the benefit of mankind." When we define benefit of mankind we must include managing oneself, home and family life, the citizen's job, and the volunteer job. The application of management to work in business and industry is meaningless without some judgment about what it will do for the other areas of our living. "We must question our decisions." How will they affect the individual in self-management, home and family habits, the citizen job, and the volunteer job?—*E. Q. Miller.*

5800. Hulin, Charles L. (Cornell U.) The measurement of executive success. *J. appl. Psychol.*, 1962, 46(5), 303-306.—The definitions and criteria of executive success which have been used in the past show little consistency across studies. The central problem of this investigation was the empirical determination of the relationship between different meas-

ures of executive success. 3 measures of success based on absolute salary, salary increase, and levels promoted were developed. The data gathered from a sample of 50 executives indicated that had one of these measures been used rather than the others, quite different conclusions would have been drawn from the data. A rigorous analysis of the various criteria of executive success is suggested as a solution to the problem of "What is executive success?"—*Journal abstract.*

5801. Ingenohl, Ingo. (Middle West Service Co., Chicago, Ill.) Blueprint for a successful management development policy. *Personnel J.*, 1962, 41(10), 491-494.—If a company is to survive longer than its founders, personnel must be found and trained to replace them. The employees selected for training must desire to develop their own abilities and to be able to develop others.—*M. B. Mitchell.*

5802. Kornhauser, A. (Wayne State U.) Implications of psychology in labor-management relations (a symposium): II. Observations on the psychological study of labor-management relations. *Personnel Psychol.*, 1961, 14(4), 241-249.—The social sciences, including psychology, have neglected the study of union-management relations. This may reflect a tendency to accept without critical examination the orientation and values of the business managements for whom psychologists work. Union's relation to management is essentially one of opposition and conflict, not of harmony and cooperation as so many psychologists like to believe. Examples of directions for research representing a desirable shift of emphasis are: (a) why workers join unions, (b) the significance of dual allegiance, (c) relative restrictions on freedom from union and management, (d) trends in union objectives outlooks, and (e) analysis of the collective bargaining process.—*A. S. Thompson.*

5803. Levenstein, A. (City Coll., New York) Implications of psychology in labor-management relations (a symposium): III. The psychologist joins the labor conflict. *Personnel Psychol.*, 1961, 14(4), 250-259.—As the latest arrival of a professional discipline on the labor-management scene, the psychologist is viewed with less suspicion than were lawyers and time-study men when they first appeared. However, labor has a direct interest in any program which might weaken the ties between the union and its membership, and unions might perceive human relations programs in this light. The use of experts, by both sides, does not reduce collective bargaining but makes the conflict more manageable by providing the factual base from which the parties may argue. If the psychologist sees this as his function, his identification with either side need not compromise his conscience, nor reduce his stature as a scientist.—*A. S. Thompson.*

5804. Murray, H. (Tavistock Inst. Human Relations, London, England) Social process in the realization of talent. In G. Nielson (Ed.), *Proceedings of the XIV International Congress of Applied Psychology. Vol. 5. Industrial and business psychology* (see 37: 4120). Pp. 80-87.—A description of problems and experiences in selecting management talent. Some possible effects of various approaches are given.—*B. T. Jensen.*

5805. Patton, Arch. (Mc Kinsey & Co.) **Executive compensation in 1960.** *Harv. bus. Rev.*, 1961, 39(5), 152-157.—This 7th annual survey, covering 587 companies in 25 industries, reveals little change in top management's pay over last year. Turnover was high. The pension of the average chief executive is now estimated to be 26% of his total earnings.—C. F. X. Youngberg.

5806. Schörner, R. **Der ideale Chef: Was erwartet sich der Mitarbeiter von seinem vorgesetzten?** [The ideal chief: What do employees expect of their supervision?] *Mensch Arbeit*, 1962, 14 (Suppl.), 48 p.—General problems of supervision are discussed, and traits expected in successful supervisors are identified and described.—K. J. Hartman.

5807. Shepard, H. A. (Case Inst.) **Implications of psychology in labor-management relations (a symposium): V. The psychologist's role in union-management relations.** *Personnel Psychol.*, 1961, 14(4), 270-279.—The common methods used by parties in conflict to reduce the resulting frustration are (a) suppression of the weaker, (b) win-or-lose fighting, (c) bargaining, (d) problem-solving, and (e) collusion. There is a role for psychologists to investigate the conditions leading to action, and the conditions under which conflicts are resolved. Experimental study of the problem-solving orientation is especially needed, particularly of the perceptions and actions of groups in conflict and their effect on problem solution.—A. S. Thompson.

5808. Singer, Henry A. (74 5th Ave., NYC) **A scientific approach to management development.** *Advanc. Mgmt.—Off. Exec.*, 1962, 1(9), 8-11.—A plea for the use of control groups, evaluation procedures, etc., by industrial concerns in the field for their management training programs.—E. Q. Miller.

5809. Sonnabend, Roger P. (Young Presidents Organization) **Executive education.** *Advanc. Mgmt.—Off. Exec.*, 1962, 1(9), 16-21.—Development programs must include 2 interdependent concerns simultaneously: (a) identifying, codifying, and meeting the educational needs and interests of the executive as he sees them and (b) planning programs based on what the executive's organization seems to require to meet the challenges of the 60s. There are 3 areas for development: (a) increased sensitivity and self-awareness, (b) practical business management and technology, (c) the understanding of the society and/or societies in which business is being done.—E. Q. Miller.

5810. Stagner, R. (Wayne State U.) **Implications of psychology in labor-management relations (a symposium): VI. Comments on the symposium.** *Personnel Psychol.*, 1961, 14(4), 279-284.—Some of the abuses referred to in the symposium presentations are less characteristic now than in the past. Also, the labor union of 1960 is not the union of 1937 and the workers often refuse to follow the lead of an otherwise popular officer. In contrast to Kornhauser's attack on objectivity, the psychologist can study industry objectively, being truly neutral with respect to both management and the union. In a society directed to the welfare of the individual, the careful use of tests for placement purposes is of value. Sound positions presented in the symposium are those on the need for diffusion of power and on

the need for research. The worker perceives himself neither as a proletarian nor as an entrepreneur. He behaves rather like a human being, full of irrationality and unconsciously determined perceptions.—A. S. Thompson.

5811. Stagner, Ross. (Wayne State U.) **Personality variables in union-management relations.** *J. appl. Psychol.*, 1962, 46(5), 350-357.—To test the hypothesis that personalities of key figures have a significant impact upon the course of union-management relations at the plant level, quantitative data were gathered on the relationship in 33 tool-and-die shops. Each manager and each steward provided personality data (Guilford-Zimmerman) and judgments of best and poorest co-workers. A factor analysis of all possible intercorrelations showed a greater than chance expectancy of significant loadings of personality measures on the factors representing basic dimensions of the union-management relationship. Within limits set by such factors as technology and union policy, the personality of the top manager or the top union official may significantly modify the course of union-management interactions.—*Journal abstract.*

5812. Taylor, D. W. (Yale U.) **Environment and creativity.** In G. Nielson (Ed.), *Proceedings of the XIV International Congress of Applied Psychology. Vol. XIV. Industrial and business psychology* (see 37: 4120). Pp. 69-79.—12 department heads in research, 12 in development, and various subdepartment heads, all in a large well-known research laboratory, were interviewed at length. All but 2 indicated that the factor most influencing creativity was the relationship between the scientist and the supervisor. The author also discusses the effect of relationships with the group and the culture within which one works. (19 ref.)—B. T. Jensen.

5813. Viteles, M. S., Wilson, A. T. M., & Hutte, H. A. **Personality and organization: The individual and the system: A symposium:** In G. Nielson (Ed.), *Proceedings of the XIV International Congress of Applied Psychology. Vol. 5. Industrial and business psychology* (see 37: 4120). Pp. 97-115.—3 papers dealing with management and leadership.—B. T. Jensen.

5814. Yssel, G. J. **Note on personality appraisal in managerial selection.** *Psychol. Afr.*, 1962, 9, 168-175.—The results of a selection program for managerial candidates for a corporation are described and discussed. The reliability of personality ratings made by a panel of 4 trained assessors during situational tests was significant. Projective test material was assessed by individual raters with a high degree of reliability, though interrater agreement was low.—J. L. Walker.

ENGINEERING PSYCHOLOGY

5815. Bertelson, P., & De Cae, C. **Comparison expérimentale de deux types de claviers numériques.** [Experimental comparison of two types of numerical keyboards.] *Bull. Cent. Etud. Rech. Psychotech.*, 1961, 10(2), 131-144.—2 groups of well-trained operators were Ss; one group used the "large" keyboard where there is a set of 10 keys for each digit, and the other used the "small" keyboard where the same set of 10 keys is used repeatedly. There were no systematic differences in error rates,

but speed was better on the small keyboard for all conditions. This superiority was markedly smaller for the conditions with a large proportion of zeros, because these figures must not be keyed on the large keyboard.—*V. Sanua.*

5816. Conrad, R. **Les problèmes humains posés par le tri mécanique de la correspondance.** [Human problems arising from the mechanical sorting of the mail.] *Bull. Cent. Etud. Rech. Psychotech.*, 1961, 10(4), 401-418.—Machines for sorting letters involve a human operator. To obtain maximal man-machine efficiency, solutions must be found for a number of psychological problems. The paper outlines and discusses 4 main areas where research is needed: (a) keyboard design, (b) multiple-choice reaction time, (c) pacing, and (d) code design.—*V. Sanua.*

5817. Fletcher, J. L., & Loeb, M. (USA Medical Research Cent., Fort Knox) **Free-field threshold shift and temporary threshold shift reduction as measures of efficiency of ear protective devices.** *J. Acoust. Soc. Amer.*, 1962, 34(10), 1629-1633.—The attenuation of 2 different earplugs and a helmet was measured by a procedure combining the free-field threshold shift and the Békésy threshold tracking methods. It was found that the helmet afforded significantly less attenuation of low-frequency sound than the earplugs and roughly the same amount at higher frequencies. The 3 devices were found to be equally effective in eliminating the temporary threshold shift following exposure to the continuous and impulsive noise. Susceptibility to one type of exposure was not necessarily significantly correlated with susceptibility to the other.—*A. M. Small, Jr.*

5818. Jensen, Barry T. (System Development Corp., Santa Monica, Calif.) **Effects of communication restriction in a small man-machine system.** *J. engng. Psychol.*, 1962, 1(3), 134-140.—Crews performed a tracking task under conditions of restricted and free communication. While the free communication situation could have resulted in better performance by enabling the crews to cooperate and organize their work, actually the members interfered with each other to the extent that their performance was not different from that of crews working under the restricted communication condition.—*D. C. Hodge.*

5819. Licklider, J. C. R. (Bolt Beranek & Newman, Cambridge, Mass.) **Bridges over the gulf between man-machine-system research and man-machine-system development.** In G. Nielson (Ed.), *Proceedings of the XIV International Congress of Applied Psychology. Vol. 5. Industrial and business psychology* (see 37: 4120). Pp. 214-229.—Research contributes little to development because of the newness of the field, its size and complexity, the time pressure in development, and difficulties in communication. All 4 factors are related directly to "informational complexity." 4 bridges are proposed; progress in information storage and retrieval, a research strategy which replans after only a few calls in the matrix are filled, development of a taxonomy of functions, and use of computers.—*B. T. Jensen.*

5820. Rigby, Lynn V., & Gooper, Joel I. **Problems and procedures in maintainability.** *USAF ASD tech. Note*, 1961, No. 61-126. iv, 92 p.—The purpose of this report is to bring together a comprehensive analysis of the maintainability problem. The

discussion is based on a literature survey on maintainability and interviews with contractor and command personnel. The fundamentals of the over-all problem are presented, followed by a detailed analysis of the most influential elements. These elements are presented in a manner that makes an integrated explanation of maintainability a natural development of the material presented. The difficulty in measuring maintainability is discussed and recommendations for the improvement of these measurements are presented.—*USAF ASD.*

5821. Ringel, S., & Smith, P. F. **Tracking performance in the Missile Master: Target loan, tracking time, and rated performance.** *USA Personnel Res. Off. OCRD tech. res. Note*, 1962, No. 121. 26 p.—To explore the effects of target loan, duration of tracking time, and tracker proficiency upon tracking performance in the Missile Master system, trackers of high, average, and low rated proficiency were required to track real targets on operational tracking consoles. Tracking performance during 6 contiguous 10-minute periods was recorded photographically. The number of targets assigned to be tracked varied from 3 to 18 targets for the 6 periods. Accuracy indexes were computed for percentage of instances trackers' "tags" were found on target and number of targets with perfect accuracy in relation to number assigned. No statistically significant differences in tracking performances were found among groups differing in rated proficiency nor across time periods. Within 10-minute periods a small decrement in mean accuracy score was found. Mean accuracy score and mean percentage of targets tracked with perfect accuracy decreased as target load increased. However, the average number of targets tracked with perfect accuracy increased with increased target load. Individual trackers were found to differ appreciably in performance.—*A. J. Drucker.*

5822. Schwartz, N. F. **A pulse function single axis, compensatory tracking apparatus.** *USAF ASD tech. Rep.*, 1961, No. 61-734. iii, 7 p.—An apparatus which provides a one-dimensional compensatory tracking task for psychological research is described. A photograph, schematics, and description of the circuitry are included. The apparatus was developed to fulfill the requirements of a task designed primarily to compare tracking performance under normal gravity to performance under zero or other abnormal gravity. The task is to attempt to keep the spot on a cathode-ray tube centered using an aircraft- or similar-type control stick. Programmed pulses having either of 2 amplitudes and durations and separated by either of 2 intervals cause the spot to suddenly move vertically either of 2 distances up or down from center when being tracked. These pulse parameters are programmed to seem random. The forcing function pulses driving the spot and the S's response can both be recorded to yield specific data and, as presently used, afford a comparison of normal tracking performance with performance under zero gravity.—*USAF ASD.*

5823. **United States Air Force School of Aerospace Medicine. Index: Publications of the School of Aerospace Medicine. Fiscal years 1961 and 1962.** Brooks Air Force Base, Tex.: USAF SAM, 1962. 22 p.—Research reports and aeromedical reviews are listed.—*M. C. Payne, Jr.*

5824. **United States Air Force School of Aerospace Medicine. Lectures in aerospace medicine.** Brooks Air Force Base, Tex.: USAF SAM, 1962. iv, 447 p.—This series of lectures describes the physiological problems involved in sending and landing a man on the moon. 1 lecture deals with psychological aspects of what man can contribute to operations in space.—*M. C. Payne, Jr.*

Displays

5825. **Baldwin, Robert D., Wright, A. Dean, & Lehr, Donald J. The relation between radar detection and the observer's concept of a target.** *HumRRO res. Memo.*, 1962, Subtask Vigil II. ii, 31 p.—Effects on the O of varied kinds and amounts of information were investigated in relation to "the defining characteristics of targets on a radar display." The "dimensional complexity of the observer's concept of a target" proved significant. Training procedures are outlined.—*R. Tyson.*

5826. **Busch, Allen C., McNair, Robert J., & Kirby, Frederick J. The data flow analysis of a mobile ATC aid: Final report.** *USAF ESD tech. docum. Rep.*, 1962, No. 62-190. x, 81 p.—An analysis was made of the internal data flow of Air Traffic Control Central AN/TSW-5 modified to include a flight path prediction computer and a time schedule display unit. This analysis indicates that the modified semi-automatic AN/TSW-5 shelter operations are improved. With computer path-prediction and scheduling provided, the communication channel load factor is less than 70% at all controller positions when handling 50 approaches per hour. Communications workload is not seen to be the limiting factor on the acceptance rate with the fully manual AN/TSW-5. The chief factor in a manual system is the extra margin of aircraft separation necessary because of the inability to precisely predict the flight paths of several aircraft converging from a multiplicity of directions toward a common final approach path.—*USAF ESD.*

5827. **Diehl, M. Joan, & Seibel, R. (International Business Machines Research Center, Yorktown Heights, N. Y.) The relative importance of visual and auditory feedback in speed typewriting.** *J. appl. Psychol.*, 1962, 46(5), 365-369.—16 skilled typists took speed typing tests under 4 different conditions: (a) normal speed typing conditions; (b) normal, but no sight of the printed line; (c) normal, but the sound of the typewriter was masked by noise fed through earphones worn by the typists; and (d) a combination of Conditions b and c (neither visual nor auditory feedback). The effects of these conditions were measured in terms of speed and accuracy of typing. Some differences among the conditions may be considered statistically significant ($p \leq .05$ on a per comparison basis), but the small magnitudes of the differences suggest: in speed typing situations the presence or absence of visual and/or auditory feedback has a relatively unimportant effect on speed and accuracy of typing.—*Journal abstract.*

5828. **Duva, J. S., Devoe, D. B., & McGoldrick, C. C., Jr. Display sharing through color filtering: Part II.** *USAF ESD tech. docum. Rep.*, 1962, No. 62-228. 7 p.—Methods of display sharing through the projection of several different displays onto the same screen area and selectively viewing the displays

with appropriate color filters and polarization techniques are described. Use of other devices for display sharing (dichroic mirrors, semi-specular screens) is discussed.—*USAF ESD.*

5829. **Faulkner, T. W. (Northwestern U.) Variability of performance in a vigilance task.** *J. appl. Psychol.*, 1962, 46(5), 325-328.—An experiment was conducted to determine the effect of signal pattern and frequency on the variability of S's performance in a vigilance task. Ss were 12 male college students who watched 3 dials during 3 consecutive 27-min. periods. Real signals occurred alone in 1 period while 2 different patterns of dummy signals were added in the other 2 periods. It was found that dummy signals which occurred at semiregular intervals were more effective in reducing S's variability than those which occurred at nonregular intervals. It was also found that variability increased with time. It is concluded that use of a semiregular pattern of dummy signals would be one way of improving performance on a vigilance task.—*Journal abstract.*

5830. **Fried, Charles. (USA Ordnance Human Engineering Lab., Aberdeen, Md.) Studies on the perceived threshold for motion: I. Effects of aperture dimension on threshold velocity.** *USA Ordn. Hum. Engng. Lab. tech. Memo.*, 1962, No. 6-62. vi, 31 p.—The influence of aperture dimension on the lower threshold of motion was investigated by comparing the effects of 5 differently sized aperture squares on motion threshold. The effect of aperture dimension was especially apparent for the smaller dimensions employed. The theoretical implications of these results were further explored in 2 additional experiments intended to determine if threshold values are a function of frame of reference dimensions or distance to a reference line. It was concluded that motion threshold value is a function of the latter, if a well-defined referent is provided. (34 ref.)—*Author abstract.*

5831. **Montgomery, W. D., & Broome, P. W. (General Dynamics Corp., San Diego, Calif.) Spatial filtering.** *J. Opt. Soc. Amer.*, 1962, 52(11), 1259-1275.—Spatial filtering of 2-dimensional pictorial data as an extension of 1-dimensional filter theory is applied to the problem of enhancing the detection of localized objects which are superimposed upon a noisy background. 4 types of filters are derived. These are the linear, quadratic, general statistical, and decision filters. Each filter is of the "matched" type, the different designs being associated with various degrees of knowledge about the noise statistics. A computer simulation of the linear and general statistical filters was done and examples are shown.—*Journal abstract.*

5832. **Newman, Klaus M., & Davis, Anne R. (USN Electronics Lab., San Diego, Calif.) Relative merits of spatial and alphabetic encoding of information for a visual display.** *J. engng. Psychol.*, 1962, 1(3), 102-126.—Speed and accuracy of operator performance in search and identification tasks were assessed along a continuum from purely alphabetic to purely spatial coding. Partial spatial coding resulted in good performance regardless of the task. Complex spatial coding improved response speed in localization of messages. Some operators profited by the addition of labels to the spatial code on the display.—*D. C. Hodge.*

5833. Roman, J. A., Warren B. H., Niven, J. I., & Graybiel, A. Some observations on the behavior of a visual target and a visual after-image during parabolic flight maneuvers. *USAF SAM tech. docum. Rep.*, 1962, No. 62-66. 8 p.—3 Ss were exposed to accelerations above and below 1 g in high-performance aircraft. Under these conditions a real target (RT) appears to be displaced upward from center for accelerations greater than 1 g positive and downward for accelerations less than 1 g positive. A visual after-image (VAI), when observed in the absence of a real target, appears to be displaced from center in a direction opposite to that observed for a real target. Fixating on a RT in the presence of a VAI results in movement of both the RT and the VAI concurrently in the fashion described for a real target. Apparent change in the position of a VAI can be brought about by voluntary eye movements but apparent position of a RT is unaffected by voluntary eye movements. Apparent displacement of a VAI or a RT usually occurs within less than 5 seconds from the time the change in acceleration is initiated.—*M. C. Payne, Jr.*

5834. Sadacca, R., Ranes, J. E., & Schwartz, A. I. Human factors studies in image interpretation: Vertical and oblique photos. *USA Personnel Res. Off. OCRD tech. res. Note*, 1961, No. 120. 16 p.—The value to image interpreters of examining both vertical and oblique views of a target area rather than views of either type alone was explored. 109 recent graduates from the Image Interpretation Course, Fort Holabird, Maryland, were divided into 5 experimental groups matched on final course grades and on general aptitude test scores. Tasks were varied so as to provide a basis for comparing performance when either vertical or oblique photos were used alone and when the 2 types of photos were used in combination. Findings showed: (a) no significant differences in number of correct identifications when interpreters had both types of photos or either type alone, (b) more misidentifications when a 2nd type of photo was provided after an initial viewing period of a single type, and (c) changing order of imagery presentation did not appear to affect performance. This exploratory study indicates that having both vertical and oblique photos of a target area does not necessarily make for improved interpreter performance. A more comprehensive study is suggested in which such factors as scale, quality, and content of photos are systematically varied.—*A. J. Drucker.*

5835. Siegel, A. I., Miehle, W., & Federman, P. Information transfer in display control systems: IV. Summary review of the DEI technique. Wayne, Pa.: Applied Psychological Services, 1962. vi, 76 p.—The logic and basis of a quantitative, objective index for evaluating the information transfer characteristics of the displays in display-human operator-control systems are presented. The logic was derived from communications theory. The 1st year's work on this display evaluative technique suggests that it represents a useful tool for aiding in the selection of an equipment design from several alternative early designs and that the reliability and validity measurements, with the outside criterion employed, are acceptable and satisfactory.—*P. Federman.*

5836. Sorenson, Richard C., & Towe, Arnold L. (U. Washington) Nonrandom tendencies in interpolating between end-points. *J. appl. Psychol.*,

1962, 46(5), 337-340.—6 Ss' estimates of the position within a 2-4 mm. interval were analyzed and found to be nonrandomly distributed among the decimals of the interval, even though the original data were uniformly distributed. Each S was highly consistent in his pattern of decimal selection over time. The patterns for different Ss were remarkably similar; decimals near the end-points of the interval were chosen at the expense of those in the interior of the interval. The position of the end-points was largely responsible for the nonrandom selection observed, for the numbers "preferred" could be altered by altering the end-points. The S's knowing of this phenomenon had some effect on the magnitude of the tendency, but did not eliminate it.—*Journal abstract.*

5837. White, William J. (Cornell Aeronautical Lab., Buffalo, N. Y.) Quantitative instrument reading as a function of illumination and gravitational stress. *J. engng. Psychol.*, 1962, 1(3), 127-133.—Effect of acceleration (1-4 g) on reading instrument dials under luminance levels of 0.004 to 42 mL was determined for 6 experienced Ss using the Wright Air Development Center human centrifuge. Increased error scores were observed for low luminance combined with low acceleration. Increase in errors at 4 g over 1 g was roughly equivalent to that due to reduction in luminance by 1 log unit.—*D. C. Hodge.*

5838. Wiener, Earl L. (U. Miami) Motion prediction as a function of target speed and duration of presentation. *J. appl. Psychol.*, 1962, 46(6), 420-424.—This study investigated the ability of Ss to predict the future position of a moving target after the target disappeared. Target speed, duration of target exposure, and S's mode of responding to the visible target were varied. The performance measure was the absolute deviation from the correct target position at the end of 9 sec., converted to error relative to target speed. Results show: (a) no significant differences resulting from mode of response (tracking vs. monitoring), order of presentation, duration of presentation, or speed-duration interaction; (b) significant learning effect from session to session ($p < .01$); and (c) an increase in relative error, in an inverse relation to target speed ($p < .01$). It is concluded that a human operator may be able to make motion predictions equally as well with minimal as with maximal exposure to target input; only target speed exerts an influence on prediction accuracy.—*Journal abstract.*

5839. Wright, A. D., & Baldwin, R. D. Target detectability on an A-scope as influenced by vertical and horizontal video amplification. *HumRRO res. Memo.*, 1962, Subtask Vigil II. 12 p.—To increase radar operator efficiency, a study probed "detectability of targets-in-jamming of vertical and horizontal amplification of the video presented on an A-type radar indicator." Results agreed with established views with respect to "use of horizontal amplification" but were contrary to those concerning "the effect of vertical amplification."—*R. Tyson.*

Controls

5840. Graham, Dunstan, & McRuer, Duane. (Systems Technology, Inc.) Analysis of nonlinear control systems. New York: Wiley, 1961. xiii, 482 p. \$9.75.—"This book is concerned with practi-

cal methods of engineering analysis for nonlinear control systems." Introductory material includes equations of control systems, classification of nonlinearities, behavior of nonlinear systems, and general techniques for solving nonlinear problems. The bulk of the book covers: "a general theory of 'quasi-linear' systems (for the description of periodic and random input behavior), and topological phase space techniques (for the description of transient behavior)." The concluding chapter includes discussion of the human controller as a nonlinear system. 4 appendices with working charts are provided to assist analysis.—C. A. Bennett.

5841. Minor, Frank J., & Revesman, Stanley L. (International Business Machines Corp., Endicott, N. Y.) **Evaluation of input devices for a data setting task.** *J. appl. Psychol.*, 1962, 46(5), 332-336.—This study evaluates a set of numeric manual entry devices. The task required was to set numeric data into the devices. The devices evaluated in this study were: a 10-key keyboard, levers, a matrix keyboard, and rotary knobs. The criteria by which the devices were evaluated were: error rate, entry time, and operator preferences. A repeated measurement design was utilized. Each of 24 subjects made 175 10-digit entries into each of the 4 devices. The conclusions based upon the data are: (a) the 10-key keyboard yields a significantly lower error rate and is significantly preferred compared to the other devices. This device required significantly less time per entry compared to the level and rotary knobs. (b) The matrix device required significantly less time per entry and was significantly preferred compared to the level and rotary knobs. The matrix device does not result in a significantly lower error rate than the latter 2 devices. (c) There were no significant differences between the lever and rotary knob devices.—*Journal abstract.*

5842. Nordström, L. (Saab Aircraft Co., Sweden) **Tracking performance of a manual aircraft fire-control system: Influence of radar noise, low-pass filtering, and quickening.** In G. Nielson (Ed.), *Proceedings of the XIV International Congress of Applied Psychology. Vol. 5. Industrial and business psychology* (see 37: 4120). Pp. 194-213.—Studies in a simulated control system are presented. "... radar noise in an aircraft fire control system introduces a random type motion into the steering signal." Numerous resulting problems are described.—B. T. Jensen.

5843. Obermayer, R. W., Swartz, W. F., & Muckler, F. A. (Martin-Marietta Corp.) **Interaction of information displays with control system dynamics and course frequency in continuous tracking.** *Percept. mot. Skills*, 1962, 15(1), 199-215.—Skilled Ss performed single dimension tracking with all combinations of following and compensatory modes of information display, position, rate, and acceleration control system dynamics, and 3 frequencies of a complex tracking course. The data show that a high degree of interdependency exists between the effects of the 7 experimental measures. Description of the interaction between the effects of display, dynamics, and course is complicated as the results differ from measure to measure.—W. H. Guertin.

5844. Sharp, Earl D. **Maximum torque exertable on knobs of various sizes and rim surfaces.**

USAF MRL tech. docum. Rep., 1962, No. 62-17. iii, 11 p.—We initiated this study to determine the maximum torque a seated operator can apply in turning a knob with the bare thumb and fingertips of his right hand. We also wanted to develop a procedure by which a given knob or set of knobs may be evaluated with respect to maximum torque exertable. A set of 60 knobs, each $\frac{1}{2}$ -inch thick, was used. The knobs had 20 diameters from $\frac{1}{4}$ to 5 inches. For each diameter there were 3 different rim surfaces: smooth, rectangular-knurl, and diamond-knurl. Each of 45 Ss was tested with every diameter-surface combination. In addition, 15 of the Ss repeated the experiment. The maximum torque exertable increased with knob diameter. For all knob sizes, rectangular- and diamond-knurl knobs permitted greater torques than did smooth knobs. Very little difference in maximum torque exertable was observed between the rectangular- and diamond-knurl surfaces.—*USAF MRL.*

SIGNS & LEGIBILITY

5845. Harcum, E. Rae, & Jones, Mary Linda. (Coll. William & Mary) **Letter recognition within words flashed left and right of fixation.** *Science*, 1962, 138(Whole No. 3538), 444-445.—Neural activity related to eye movements has been proposed as a reason for superior recognition of words to the right of fixation. Predictions from such propositions were verified in our experiment. The distribution of recognition errors among letter positions on the left is relatively symmetrical, while the distribution on the right increases from fixation.—*Journal abstract.*

5846. White, B. W. (Massachusetts Inst. Technology) **Recognition of familiar characters under an unfamiliar transformation.** *Percept. mot. Skills*, 1962, 15(1), 107-116.—20 Ss were asked to identify alpha-numeric characters which had been subjected to repeated transformations by a 2-dimensional random walk, with 3 different step sizes. The percentage of correct identifications declined regularly with the number of transformations the character had undergone. The larger the step size, the more rapid was this decline with each succeeding transformation.—W. H. Guertin.

DRIVING, ACCIDENTS, SAFETY

5847. Ancelin-Schutzenberger, Anne. **Quelques aspects psycho-sociologiques de l'étude des accidents.** [Some psychosocial aspects of the study of accidents.] *Bull. Cent. Etud. Rech. Psychotech.*, 1961, 10(4), 455-472.—Recent studies on accidents are reviewed. The composition of the group, its attractiveness, perception of goals, its security, and its creativity are additional or essential factors in predisposition towards accidents.—V. Sanua.

5848. Brickenkamp, Rolf. (Möllenberg 1, Essen-Werden, Germany) **Bewährungsstudie über die Aussagekraft von Leistungstests zum Problem der Kraftfahreignung.** [Validity study of tests used in driver-evaluation.] *Z. exp. angew. Psychol.*, 1962, 9(2), 165-175.—A discussion of criteria for safe driving introduces the validity study of the Bennett Mechanical Comprehension Test and a detail discrimination test (Brickenkamp Test d2). Both tests were effective in discriminating between drivers and persons who failed the driver examination 2 or more times.—W. J. Koppitz.

5849. Hampel, B. (Mainz, Rheinallée 85) **Untersuchungen zur Beziehung zwischen Fahrtauglichkeit und Intelligenzniveau.** [A study to determine the relationship between driver fitness and intelligence level.] *Psychol. u. Praxis*, 1962, 6(1), 1-13.—Data were available from driver examinations for 1207 Ss between the ages of 18 and 49 relative to the relationship between intelligence and driver fitness. Criteria of driver fitness were based upon licensing examinations and traffic accident rate. It was concluded that intelligence, as measured by Hamburg-Wechsler Intelligence Test for Adults, and driver fitness were related. Further, truck drivers, the most able drivers, were found to score higher than other drivers.—H. Roemmich.

5850. Klebelsberg, Dieter. (Verkehrspsychologisches Inst., Vienna, Austria) **Unterschiedliche Auswirkungen einer Blutalkoholkonzentration von 1.0 Promille bei einzelnen psychischen Komponenten der Fahrtüchtigkeit.** [Differential effects of 1.0 per mil blood alcohol concentration upon different psychological components of driving ability.] *Z. exp. angew. Psychol.*, 1962, 9(1), 1-11.—Visual perception, reaction time, coordination, subjective evaluation of driving ability, and sudden adaptation to traffic obstacles were the functions tested under normal conditions and under the influence of alcohol. While the various sensory functions did not suffer much loss, the ability to react quickly in the simulation equipment was affected most under alcohol. But the degree of deterioration was considerably influenced by driving proficiency in the normal state.—W. J. Koppitz.

5851. Leplat, J. **Psychologie expérimentale et étude des accidents.** [Experimental psychology and the study of accidents.] *Bull. Cent. Etud. Rech. Psychotech.*, 1961, 10(4), 473-487.—The theory of communication suggests a number of hypotheses to explain accidents, such as the superabundance of information which cannot be handled by the worker. Fatigue, anxieties, lack of familiarity with the machine, the phenomenon of negative transfer, automatization, regression, and underestimation of risks are considered. Thus concepts in experimental psychology could be utilized in understanding and preventing accidents.—V. Samua.

5852. Winkler, Werner. **Psychologische Beratung im Verkehrswesen.** [Consulting psychology for traffic problems.] *Psychol. Rdsch.*, 1962, 13(3), 199-207.—Psychological analysis can contribute in several areas of traffic problems. A perceptual analysis of driving can help the car-designer and the highway-engineer in adapting cars and highways to the limitations of the driver. Personality analysis and psychological evaluation of accidents can help in court decisions. Finally, psychological analysis can be useful in traffic education by separating emotional and personality factors from perceptual and motor defects.—W. J. Koppitz.

ADVERTISING & CONSUMER PSYCHOLOGY

5853. Amerine, M. A., Baker, G. A., & Ough, C. S. (U. California, Davis) **Confusion in sensory scoring induced by experimental design.** *J. food Sci.*, 1962, 27, 489-494.—8 experienced wine tasters used a 20-point scale to score 4 series of wines, each prepared by adding a different adulterant at 4 de-

tectably different concentrations. 2 designs were used: (a) replicate scoring of the 4 samples of 1 series at a session, and (b) 8 samples at a session randomized over series and levels. Each S scored each sample 4 times for each design. Both mean scores and variability differed among tasters for either design. With design (b) the scorings became biased in unpredictable ways and variability increased.—D. R. Peryam.

5854. Baker, G. A., Amerine, M. A., & Kester, D. F. (U. California, Davis) **Consumer preference on a rating basis for almond selections with allowance for environmental and subject-induced correlations.** *Food Technol.*, 1962, 16, 121-123.—5 types of almonds were served in pairs to students. Each member of the pair was rated on a 7-point hedonic scale. Significant correlations, higher for men than for women, were found between the paired ratings. When the data were analyzed without taking account of these correlations there were no significant differences between almond types or between sexes. The t test for correlated means established significant differences between almond types. Men seemed to be more discriminating than women.—D. R. Peryam.

5855. Benson, Purnell H. (Swarthmore, Pa.) **A short method for estimating a distribution of consumer preferences.** *J. appl. Psychol.*, 1962, 46(5), 307-313.—A brief questionnaire and statistical procedure is described for estimating the statistical distribution of consumer preferences for product variations along a single qualitative dimension. The fitting of data to ogive curves for skewed distributions is illustrated. Implications of distributions of consumer preferences for product planning and marketing strategy are suggested.—*Journal abstract.*

5856. Burril, L. M., Deethardt, D., & Saffle, R. L. (South Dakota Agricultural Experiment Station, Brookings) **Two mechanical devices compared with taste-panel evaluation for measuring tenderness.** *Food Technol.*, 1962, 16, 145-146.—6 panel members scored 82 cooked beef samples for tenderness and also counted the number of chews required to ready a ½-in. cube for swallowing. Mechanical measures were: Warner-Bratzler shear, Kramer-shear maximum force, and Kramer-shear total work. When data for all samples were combined, all inter-method correlations were highly significant. The correlation between number of chews and tenderness was -.91. Correlations between tenderness scores and the mechanical measures ranged from -.72 to -.83; those between number of chews and mechanical measures ranged from -.67 to .75.—D. R. Peryam.

5857. Cox, Donald F. (Harvard Business School) **Clues for advertising strategists.** *Harv. bus. Rev.*, 1961, 39(5), 160-176.—Some of the research findings of Carl Hovland and his associates in the area of communication and persuasion, as well as the work of Katz and Lazarsfeld on mass media, are reviewed in the light of the earlier assumptions of advertising psychologists. Implications for the planning of advertising programs are presented.—C. P. X. Youngberg.

5858. Cox, Donald F. (Harvard Business School) **Clues for advertising strategists: Part II.** *Harv. bus. Rev.*, 1961, 39(6), 160-182.—Studies illustrating the operation of 4 types of selective proc-

esses (exposure, perception, retention, and decision) are reviewed. 3 factors which interact to make an individual more (or less) predisposed to use these selective processes are discussed: (a) the physical and economic reality the individual experiences, (b) his personality, and (c) the social environment in which he lives. Some implications of research on mass communications for testing advertising effectiveness are presented. Festinger's theory of cognitive dissonance plays an important part in the discussion leading to a recommended strategy of "selective advertising."—C. F. X. Youngberg.

5859. Emery, F. E. (Tavistock Inst. Human Relations, London, England) **A heuristic model of the marketing process.** In G. Nielson (Ed.), *Proceedings of the XIV International Congress of Applied Psychology. Vol. 5. Industrial and business psychology* (see 37: 4120). Pp. 172-181.—A model is described.—B. T. Jensen.

5860. Harrington, G., & Pearson, A. M. (U. Cambridge, England) **Chew count as a measure of tenderness of pork loins with various degrees of marbling.** *J. food Sci.*, 1962, 27, 106-110.—Samples were small wedges cut from cold fried chops. The end-point was defined as "the consistency at which the sample would normally be swallowed." 6 panel members were selected from 9 candidates on the basis of good reproducibility of chew counts in replicated tests. Loins from 36 pigs were divided into 18 "blocks" each containing a loin of high marbling and one of low marbling, as determined by visual examination. Each S tested samples from 3 blocks at a session. 5 Ss discriminated significantly between degrees of marbling. Average chew count correlated +.92 with Warner-Bratzler shear values, -.67 with marbling score, and -.57 with percentage of intramuscular fat.—D. R. Peryam.

5861. Katona, G. (U. Michigan) **Motivational research and the consumer.** In G. Nielson (Ed.), *Proceedings of the XIV International Congress of Applied Psychology. Vol. 5. Industrial and business psychology* (see 37: 4120). Pp. 149-159.—Data are presented on consumer attitude and demand. An understanding of consumer psychology can be of aid in ironing out economic fluctuations.—B. T. Jensen.

5862. Micko, H. C. (Max-Planck-Inst. Arbeitspsychologie, Dortmund, Germany) **Die Bestimmung subjektiver Ähnlichkeiten mit dem semantischen Differential.** [The determination of similarities with the semantic differential.] *Z. exp. angew. Psychol.*, 1962, 9(2), 242-280.—2 questions are discussed: the selection of judgment criteria, and the measure of similarity. Methods for selecting the most representative sample of relevant, not predetermined criteria are pointed out. As a measure of similarity $s = \sum X_{ij}X_{ik}$ is proposed instead of the usual D^2 , since D^2 is more likely to show similarity among unclearly designated objects of judgment. A similarity analysis of textile fibers, given as an example, compares different variations of the Semantic Differential.—W. J. Koppitz.

5863. Naylor, James C. (Ohio State U.) **Deceptive packaging: Are the deceivers being deceived?** *J. appl. Psychol.*, 1962, 46(6), 393-398.—To investigate the effects of deceptive packaging, sample packages of potato chips containing various amounts were distributed to consumers who pur-

chased a regular pack of the same brand. The only difference between the sample and the purchased pack was in terms of quantity of chips with the sample packs having various deficits. Preference data were obtained via a follow-up interview. The analyses of the questionnaire data indicated that: (a) consumers did not perceive weight differences between packs, (b) all indices of consumer preference favored the free pack when the two were of equal weight, and (c) all indices showed a marked decrease in preference for the experimental pack as the contents of the experimental packs were decreased.—*Journal abstract.*

5864. Pace, R. Wayne. (Fresno State Coll.) **Oral communication and sales effectiveness.** *J. appl. Psychol.*, 1962, 46(5), 321-324.—The relationship between oral communication and sales effectiveness was investigated. 2 equatable groups of working sales people, a more effective "high" group and a less effective "low" group, were compared in terms of selected aspects of their communication behavior. Findings indicated that evaluations of basic oral communication skill (including listening) reliably differentiated between the 2 groups. Sales methods such as using "emotional appeals" and "dramatizing" also distinguished between the more effective and the less effective sales people. Results suggested: that evaluations of basic oral communication skill by a trained interviewer should be one valuable indicator of sales success; that communication training programs should subordinate fragmental, relatively isolated details of communication behavior to consideration of generalized communication skill; and that sales people who are inferior in basic oral communication skill will also be less effective in utilizing specialized persuasive techniques.—*Journal abstract.*

5865. Sawyer, F. M., Stone H., Abplanalp, H., & Stewart, G. F. (U. California, Davis) **Repeatability estimates in panel selection.** *J. food Sci.*, 1962, 27, 386-393.—Panels of 10-15 Ss made odor discrimination tests on milk vs. milk with added vanilla, using different test designs and extensive replication. Repeatability (intraclass correlation of repeated measures) was estimated directly from variance analysis for different designs, lengths of sessions, and groupings of Ss. Paired comparisons was found to be more sensitive than the triangle test. Long test sessions may provide a more reliable basis for panel selection than short-period testing. It is concluded that repeatability estimates can predict the proportion of judges whose sensitivity meets established specifications.—D. R. Peryam.

5866. Schwimmer, Sigmund, & Guadagni, D. G. (Albany, Calif.) **Relation between olfactory threshold concentration and pyruvic acid content of onion juice.** *J. food Sci.*, 1962, 27, 94-97.—Thresholds were established for juice from 22 lots of onions. For each, a series of 4 dilutions was made with tap water in the range 5-30 ppm, and these were tested by the duo-trio method by 12 Ss, each replicating 4 times. Threshold was defined as the concentration giving 70% correct responses. The correlation was -.97.—D. R. Peryam.

5867. Thumin, Frederick J. (Washington U.) **Identification of cola beverages.** *J. appl. Psychol.*, 1962, 46(5), 358-360.—An attempt was made to overcome certain methodological inadequacies of earlier

studies in determining whether cola beverages can be identified on the basis of taste. Some 79 Ss completed questionnaires on their cola drinking habits and brand preferences, then were tested individually on samples of cola beverages presented under methods of paired comparisons. Significant chi square values were obtained for Coca Cola and Pepsi Cola, due to the large number of correct identifications for these brands. Correct identification of Royal Crown, however, did not differ from chance expectancy. No significant relationship was found between ability to identify cola beverages and degree of cola consumption; nor were Ss any better at identifying their "regular" brand than they were other brands.—*Journal abstract.*

5868. Wærneryd, K. E. (Stockholm School Economics) **The use of scaling and standardized indirect methods in consumer interviewing.** In G. Nielson (Ed.), *Proceedings of the XIV International Congress of Applied Psychology. Vol. 5. Industrial and business psychology* (see 37: 4120). Pp. 161-171.—Marketing research is much less rigorous than industrial research generally. Several standardized procedures have been developed, namely, indirect method of assessing a product's social status, use of a constant sum to measure preferences, multiple-choice sentence completion, and the "Annoyances Test."—*B. T. Jensen.*

5869. Weckel, K. G., Martin, J. A., Lakama, Ralph, & Lyle, Margaret. (U. Wisconsin) **Effect of added sugar on consumer acceptance and physicochemical properties of canned cream-style corn.** *Food Technol.*, 1962, 16, 131-132.—Corn was prepared at 5 sugar levels: 5.5%, 8.2%, 10.8%, 13.4%, and 15.9%. Samples were distributed in pairs to 814 Madison families and 590 families in 15 central states. Corn was served hot at 2 different meals. All family members 10 years of age and over stated their preference and reasons for choice, if any. 10,397 responses were obtained. For flavor the Madison panel liked the 2 lowest levels of sugar equally; preference over the 3 higher levels was significant at the 1% level. Results were the same for the other panel except that the cut-off point was at the middle level. For appear-

ance, both panels liked the 2 lower levels equally; preference over higher levels was significant at the 1% level. The preferred corn was called "less sweet" and "brighter." No sex differences were found. The only age difference was higher preference by 10-16 year olds for the "sweeter" and "darker" samples.—*D. R. Peryam.*

5870. Yuson, Sonia M., & Francis, F. J. (U. Massachusetts, Amherst) **Relation between visual color differences and tristimulus color readings for pureed carrots, spinach, and pears.** *J. food Sci.*, 1962, 27, 295-302.—Ranges of colors were produced by blending samples of different colors and diluting with water. Visual just noticeable (color) differences (JNDs) were established by a panel of Ss using the triangle method. Differences were measured objectively using 6 types of colorimeters. Reproducible objective measurements lower than the JNDs were found only for spinach and pears and only for 2 colorimeters; other reproducible objective measurements were equal to, or higher than, the JND's.—*D. R. Peryam.*

5871. Zaehring, Mary V., & LeTourneau, Duane. (U. Idaho) **Textural quality of potatoes: I. Comparison of 3 organoleptic methods.** *Food Technol.*, 1962, 16, 131-134.—Mealiness of steamed potato cubes was judged under 3 conditions: by mouth, light mashing with a fork, and continued mashing to form a cohesive mass. The study included 36 different treatments and continued over a 2-year period. 8 to 10 panel members judged the samples, 4 or 5 at a session, against an arbitrarily chosen control using a 7-point rating scale whose categories represented degrees of greater or lesser mealiness than the control. An unmarked duplicate of the control was included in each set to be judged. All 3 methods discriminated among treatments. Light mashing was the most sensitive method. Its results correlated $\pm .96$ with the "by mouth" method. Continued mashing was least sensitive. Use of the labeled reference standard effectively stabilized the level of scores throughout the experiment. The correlation between mealiness scores and specific gravity was $\pm .92$.—*D. R. Peryam.*

BRIEF SUBJECT INDEX

This index supplements, but does not duplicate, the classification of abstracts given in the Table of Contents. It is assumed that the reader will have scanned whatever categories of classification interest him and that he will use this index only for cross references or for subjects that are more specific than the general categories of the classification. When many numbers are encountered under a heading, the reader may simplify his task by matching the numbers found under the two or more headings that specify his particular interest.

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Psychological Abstracts

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EDITORIAL NOTES

The Research Division of the California Department of Mental Hygiene has begun publication of a quarterly, the *California Mental Health Research Digest*. "The purpose of the *Digest* is to report with speed, brevity, permanency and dignity, the scientific achievements of the Research Division, to insure the attention of investigators already inundated by a flood of publications."

* * *

The Color Science Association of Japan has begun the publication in English of *Acta Chromatica*. It is scheduled at present to be published annually. While devoted primarily to publications of studies by members of the association, contributions from abroad are cordially invited. The editor is R. Hioki, Department of Engineering, Tokyo University, Bunkyo-ku, Tokyo, Japan. Foreign subscription: \$2.00 annually, postage included.

GENERAL

5872. **Timaeus, Ernst.** (U. Köhn, Zülpicherstr. 182, Germany) *Über den Aufbau einer Lochkartenkartei psychologischer Literatur.* [On the assembly of a punched card file of psychological literature.] *Z. exp. angew. Psychol.*, 1962, 9(3), 509-517. —The problems connected with such a task are pointed out, especially the difficulty in getting agreement on a representative catalogue of psychological concepts.—*W. J. Koppitz.*

OBITUARIES

Truman Lee Kelley. *Brit. J. statist. Psychol.*, 1962, 15(1), 95-96.—Obituary.—*N. Earl.*

HISTORY & BIOGRAPHY

5874. **American Psychological Association. Distinguished Scientific Contribution Awards: 1962.** *Amer. Psychologist*, 1962, 17(12), 888-898.—Jerome Seymour Bruner, William Kaye Estes, and Harry Helson are honored for their outstanding scientific contributions. Each recipient receives a scroll citing the basis for the award and a check for \$1000. The citation, a brief professional biography, a photograph, and a complete list of scientific publications organized chronologically, are provided for each award recipient.—*S. J. Lachman.*

5875. **American Psychological Foundation. Gold Medal and Distinguished Science Writing Awards.** *Amer. Psychologist*, 1962, 17(12), 899-900.—The American Psychological Foundation Gold Medal was presented to Walter R. Miles, "Pioneer in the precise observation of human and animal behavior . . . prime mover in educating scientists . . . humane person devoted to others both in his personal relations and in

his research." The American Psychological Foundation Science Writing Award was presented to Gay Gaer Luce of Philadelphia "in recognition of newspaper and magazine accounts of recent psychological developments." Photographs of each recipient are included.—*S. J. Lachman.*

5876. **Burt, Cyril.** (University Coll. London, England) **Francis Galton and his contributions to psychology.** *Brit. J. statist. Psychol.*, 1962, 15(1), 1-41.—This commemorative review of Galton's life and numerous contributions to various sciences, particularly psychology, was prepared for presentation to the British Psychological Association on the 50th anniversary of Galton's death. The author's purpose is "not so much to record or repeat the well established facts, but rather to interpret them."—*N. Earl.*

5877. **Cardno, J. A.** (U. Tasmania) **Natural limits and change of content in the history of psychology.** *Psychol. Rec.*, 1962, 12(3), 289-298.—"By quotation from authorities at widely separated times, it is established that historians of psychology strive for a genetic and developmental view of their subject. Cross-sectional or latitudinal, and longitudinal approaches by two major historians to the delimitation of periods are contrasted. For a particular period (1797-1874), natural limits are arrived at, and the structure of these limits themselves is used to suggest a line of enquiry into the extent of change in psychology during the period. This change, amounting to about one half of the content of psychology, is briefly appraised. The mode of application of the method to particular authors is suggested."—*R. J. Seidel.*

5878. **Chmelař, V.** (Psychologická U., Brno, Czechoslovakia) **K šedesátinám Prof. Dr. Jana Doležala.** [Professor Doležal: 60 years.] *Českoslov. Psychol.*, 1962, 6(1), 110-115.—A review of the work of the director of the Psychological Institute of Charles University and the chief psychologist in Czechoslovakia. (Russian & English summaries)—*V. Bricháček.*

5879. **Mendoza, Rafael Thomas.** (Madrid, Spain) **La vida y la obra de Carlos Gustavo Jung.** [The life and work of Carl Gustav Jung.] *Rev. Psicol. gen. apl.*, 1961, 16(Whole No. 60), 737-764.—In the year of Jung's death, a biographical and critical memorial.—*E. B. Page.*

5880. **Michael, William B., Comrey, Andrew L., & Fruchter, Benjamin.** (U. California, Santa Barbara) **J. P. Guilford: Psychologist and teacher.** *Psychol. Bull.*, 1963, 60(1), 1-34.—A review of the life and contributions of one of the foremost psychologists of our time. The review covers the contributions of Guilford to experimental psychology—experimental esthetics, sensory processes, perception, and learning; statistical psychology—psychophysics, analysis, test theory and evaluation; measurement of

mental abilities—aptitudes of high level personnel, structure of the intellect, and creativity; and personality—tests, questionnaires, and inventories by Guilford and his associates. A complete bibliography shows that Guilford published either as sole author or as co-author 21 books; 29 monographs; 158 articles; and 21 tests, manuals, and profile sheets. A portrait of Guilford is included. (7-p. bibliogr.)—*Journal abstract.*

5881. Miles, Walter R. Carl Iver Hovland. In American Philosophical Society, *Year book: 1961*. Philadelphia, Pa.: APS, 1962. Pp. 121-125.—A biographical memoir.—*E. Y. Beeman.*

5882. Taylor, W. S. (Smith Coll.) *Psychoanalysis revised or psychodynamics developed?* *Amer. Psychologist*, 1962, 17(10), 784-788.—“When we survey not only the Freudian current but the entire psychodynamic stream, we find that most of Freud's good emphases had been or were being explicated by other workers, often with more penetration and discrimination.” Male hysteria, hysteria in little girls, and hysteria in women past the menopause (LePois, 1618); conflict and repression (Leibniz); the unconscious, including the supposed sexual core (Schopenhauer, 1819); complexes and relatively unified and divided personality (Herbart); scientific dream interpretation (Hippocrates). “Subsequent workers have verified more of Prince's perspective than of Freud's.” Encapsulation, isolation, and “cultism” among psychoanalytic workers are not as hopeful for science and humanity as “are mutual recognition and give-and-take between workers in a common enterprise.”—*S. J. Lachman.*

5883. Thomas, Dorothy Swaine. Samuel Andrew Stouffer. In American Philosophical Society, *Year book: 1961*. Philadelphia, Pa.: APS, 1962. Pp. 192-196.—A biographical memoir.—*E. Y. Beeman.*

5884. Vogt, Evon Z. Clyde Kay Maben Kluckhohn. In American Philosophical Society, *Year book: 1961*. Philadelphia, Pa.: APS, 1962. Pp. 133-137.—A biographical memoir.—*E. Y. Beeman.*

THEORY & SYSTEMS

5885. Beach, Lee Roy. (U. Colorado) *A mathematical theory of inference behavior.* *Dissert. Abstr.*, 1962, 22(9), 3270-3271.—*Abstract.*

5886. Berger, Emanuel M. (U. Minnesota) *Zen Buddhism, general psychology, and counseling psychology.* *J. counsel. Psychol.*, 1962, 9(2), 122-127.—A theoretical article describing Zen concepts and their relationship to psychology.—*E. R. Oetting.*

5887. Boaz, G. D. (Madras, India) *The concept of mind.* *Indian J. Psychol.*, 1962, 37(2), 53-66.—In his Presidential Address for the Section of Psychology and Educational Science, 49th Indian Science Congress, 1962, Boaz decries the tendencies of modern psychology to determine subject matter by methodology rather than the opposite, and to oversimplify by “electronic brains” and neurophysiology. He points to certain persistent problems (such as the extreme adaptability and spontaneity of the nervous system, consciousness, and parapsychology) which are not adequately represented by mechanical models. All students of psychology should confront them-

selves with the mind as an entity and as a legitimate problem for study.—*J. T. Cowles.*

5888. Bolton, T. H. *The structure of the mind.* Part II. *Brit. J. statist. Psychol.*, 1961, 14(2), 144.—The author questions Cyril Burt's use of the concept “mind,” seeing in this use the old problems of philosophical dualism. Bolton points out that Burt has not explained precisely what he understands by the word “mind,” and Bolton asks Burt to give specific instances of individual differences that cannot be completely described in behavioristic terms.—*H. P. Kelley.*

5889. Burt, Cyril. (University Coll. London, England) *The structure of the mind: A reply.* *Brit. J. statist. Psychol.*, 1961, 14(2), 145-170.—“The primary object of this paper is to plead for a reintroduction into psychology of the concept of mind.” Burt responds to certain of his critics—among them Smythies [see 37: 5898], Hudson [see 37: 5890], and Bolton [see 37: 5888]—by discussing differences in methodology. Next Burt reviews current views of “mind” and consciousness and discusses instrumental theories. By way of a summary and conclusion he outlines his own conception of a “mind.”—*H. P. Kelley.*

5890. Hudson, K. S. *The structure of the mind: Part II.* *Brit. J. statist. Psychol.*, 1961, 14(2), 143-144.—The author argues for a purely objective psychology and against Cyril Burt's attempt to reintroduce the concept of “mind” into psychology.—*H. P. Kelley.*

5891. Luce, Duncan R. Comments on Rozeboom's criticism of “On the Possible Psychophysical Laws.” *Psychol. Rev.*, 1962, 69(6), 548-551.—(see 36: 1BB81L) Psychological laws will in general involve dimensional parameters. It is necessary to state carefully the transformational aspects of the law.—*C. T. Morgan.*

5892. Pinkava, V. (Psychiatrická klinika, Prague, Czechoslovakia) *Model stupňovité preference s psychopatologickou aplikací.* [Model of graduated preference with its psychological application.] *Ceskoslov. Psychol.*, 1962, 6, 178-184.—A method of theory formation of pathological disturbances is outlined. (Russian & English summaries)—*V. Břicháček.*

5893. Prentice, W. C. H. (Swarthmore Coll.) *The self as person.* *Ann. N. Y. Acad. Sci.*, 1962, 96(3), 785-796.—The word “self” has referents whose referents themselves have multiple referents. The self is more than any set of experiences or memories. Person is defined in terms of relational abstractions permitting prediction of choice behavior. The way in which one views oneself as a person in contrast to the way in which others may, provides empirical grounding for the self. Ego-involvement means taking one's own interests into account in an activity. One need not, however, necessarily have a better idea of one's own interests than others do. A number of questions posed by this concept are raised.—*B. S. Aaronson.*

5894. Rozeboom, William W. *The untenability of Luce's principle.* *Psychol. Rev.*, 1962, 69(6), 542-547.—A criticism of Luce's (see 36: 1BB81L) postulates concerning (a) consistency of substantive and measurement theories and (b) invariance of the substantive theory.—*C. T. Morgan.*

5895. Sarkisov, S. A. (Acad. Medical Sciences, Moscow, USSR) *Estestvonauchnye i filosofskie voprosy sovremennoogo sostoiianiia nauki o mozge*. [Scientific and philosophical problems of modern science of the brain.] *Zh. vyssh. nervn. Deiatel.*, 1962, 12(6), 985-1000.—Survey of our present knowledge about the brain. The scientific findings about the structure and the function of the brain can be properly understood only in the light of Marxist-Leninist teachings.—A. Cuk.

5896. Scher, Jordan M. (Ed.) *Theories of the mind*. New York: Free Press Glencoe, 1962. xix, 748 p.—The contributions of 35 collaborators have been organized into 33 chapters designed to explore all known avenues to the study of the mind. Part I (brain) includes basic physiological, biochemical, behavioral, genetic, and neurological considerations. Part II (participation) attempts to define philosophical, psychiatric, and cybernetic aspects. Part III (method) considers a miscellany of methodologies from introspection to possibility processes.—H. P. David.

5897. Shoben, Edward J., Jr. (Columbia U.) *Behavioral aspects of the self*. *Ann. N. Y. Acad. Sci.*, 1962, 96(3), 765-773.—The development of scientific psychology led to an abandonment of the study of the self. A comparison of psychological and psychoanalytical concepts is advanced in terms of the concept of guilt and the defense mechanisms. Understanding the self is important with respect to understanding the relation between conscious and unconscious and in understanding identity and self-evaluation. Self-potency is an important dimension in mental health. Selective responsiveness is an important defining factor of the self. (20 ref.)—B. S. Aaronson.

5898. Smythies, J. R. (U. Edinburgh) *The structure of the mind: Part I. A note on physical and psychological space*. *Brit. J. statist. Psychol.*, 1961, 14(2), 141-142.—Smythies replies to a number of objections by Cyril Burt to Smythies' formulations of the representative theory of perception and of the nature of the mind-brain relationship, as previously reported in his book, *Analysis of Perception* (see 31: 4150).—H. P. Kelley.

5899. Traxel, W. *Grundzüge eines Systems der Motivierungen*. [Characteristics of a system of motivation.] *Arch. ges. Psychol.*, 1962, 114(2), 143-172.—Emotional reactions of 20 male graduate students to 12 selected color slides were recorded in a plane scalar system whose coordinates are points on scales for pleasantness-unpleasantness and submission-dominance. A 3rd "dimension," degree of "activation," which the author equates with libidinal strength is under investigation. Vectorial relationships among the scalar quantities can provide insights on relationships between emotions. Implications for psychoanalysis and a system of topological psychology are discussed.—K. J. Hartman.

PHILOSOPHY

5900. Basszin, F. V. *A neofreudizmus kritikája*. [Criticism of neofreudism.] *Magyar pszichol. Szle.*, 1961, 18(1), 3-25.—After dealing with the historical development of the Freudian and neo-Freudian schools of thought the author emphasizes that certain scientific concepts have to be evaluated not only on

the basis of their validity but also on their influence on the development of our culture and society. Psychoanalysis is based on idealistic philosophies and its influence is of a reactionary nature. The ideological influences of freudian thinking supported tendencies hostile to social and scientific progress. To explain the reactions of workers in analytical terms helps to shift the emphasis from the class struggle to a broader application of psychoanalytical treatment as the method to better the worker's lot. A strong stand is taken against neofreudian "compromises." "For a dialectic materialistic neurologist and psychologist cannot compromise theories based on dialectic materialistic philosophy with freudian theories which are based on subjective idealism. . . . We have to fight against freudism whichever ideological form it takes in order to uncover consistently and completely its thorough pseudoscientific and politically reactionary character."—E. Friedman.

5901. Clark, Walter H. (Hartford Seminary Found., Conn.) *A religious approach to the concept of the self*. *Ann. N. Y. Acad. Sci.*, 1962, 96(3), 831-842.—The psychology of religion has been sadly lacking. Methodology is limited to study of personal documents and the individual case. The anthropological method of "the participant observer" is applicable to studying religious experience. Many religious selves may be delineated. James' concepts of the once-born and the twice-born are cited as examples. Mystics are likely to be twice-born and are the prime examples of the religious self. Mystic experience involves a total transmutation of personality. 7 characteristics of mystic experience are noted. Its potential is present in all men. (21 ref.)—B. S. Aaronson.

5902. Gomes de Araujo, H. de A. (Porto, Portugal) *El hombre en el diálogo con su mundo: Apuntes de psicología fenomenológica*. [Man in dialogue with his world: Notes from phenomenological psychology.] *Rev. Psicol. gen. apl.*, 1961, 16 (Whole No. 58), 259-272.—A philosophical essay emphasizes that the fundamental psychological situation is existence in a world confronted by problems.—E. B. Page.

5903. Havens, Joseph. (Carleton Coll.) *The participant's vs. the observer's frame of reference in the psychological study of religion*. *J. scient. Stud. relig.*, 1961, 1(1), 79-87.—The phenomenological method as a source of data concerning religious experience and behavior is important. The tension existing between the phenomenological approach and the objective observer's approach is fruitful. Although the phenomenological approach relies more heavily on knowledge-by-acquaintance than do other methods of data gathering, it should still be seen on part of the scientific enterprise. "Science is only one of several ways of approaching religion, and is clearly to be distinguished from the 'unitive knowing' of the religious participant."—O. Strunk, Jr.

5904. Kunz, Hans. *Die eine Welt und die Weisen des In-der-Welt Seins: I. Fortsetzung*. [The one world and the modes of being in the world: I. Continuation.] *Psyche, Stuttgart*, 1962, 16(7), 464-480.—Dilthey, like Helmholtz, sought to derive our awareness of independent reality from the resistance it offers to our willing. But Heidegger has shown that experiencing of resistance can only occur

in an already constituted world within which we find ourselves. Our doubts about the reality of the "outer world" are rooted in our capacity for losing the world, and are eventually linked to the death inherent in the source of thought itself. It is this virtual world loss that presses us to "establish" and "ensure" our being in the world.—*E. W. Eng.*

5905. Mettler, Fred A. (Columbia U.) **Structural basis of the self.** *Ann. N. Y. Acad. Sci.*, 1962, 96(3), 687-724.—Beginning with concepts of non-identity between neurologic self and Cartesian soul, and of the self as a dynamic process in space-time extending beyond the physical body, functions and aspects of the self are delineated. These are in turn related to nervous system functions related to anatomical sites. Criteria for breakdown in self-concepts and percepts are discussed and related to these sites and functions and are reviewed for clues to what is self. Breakdown is evaluated as it occurs in many psychiatric and neurological conditions. It is noted that while there is congruence between self and neural function, the correlation is not perfect. (117 ref.)—*B. S. Aaronson.*

5906. Misiak, Henryk. (Fordham U.) **The philosophical roots of scientific psychology.** New York: Fordham Univer. Press, 1961. xiv, 142 p. \$3.00.—Discoveries in modern psychology have long been known to owe a great debt to the schools of philosophy from which the problems arose and out of which solutions have come. An intelligent understanding of these philosophical roots has been lacking in too many students of psychology. The author attempts to fill this gap by showing the fundamental relations between schools of philosophy and the growth of scientific psychology. Includes topical bibliography.—*R. M. Frumkin.*

5907. Rothschild, F. S. (Hadassah University Hosp., Jerusalem, Israel) **Laws of symbolic mediation in the dynamics of self and personality.** *Ann. N. Y. Acad. Sci.*, 1962, 96(3), 774-784.—The development of self is viewed as an evolution of subjectivity which is best shown in the symbol which unites the objective and subjective aspects of reality. The semiotic approach to meaning is contrasted to the cybernetic. Organisms are compared with linguistic forms. Meaning and meaninglessness are equated with life and death. Internal polarization of organisms is necessary in order for them to communicate with the world around them. Each new system for accomplishing this dominates all preceding systems. These conceptions are traced phylogenetically, developmentally, phenomenologically. (16 ref.)—*B. S. Aaronson.*

5908. Runes, Dagobert D. (Ed.) **Classics in logic: Readings in epistemology, theory of knowledge and dialectics.** New York: Philosophical Library, 1962. xiv, 818 p. \$10.00.—An alphabetical collection of extracts from writers ranging from Parmenides ("The Two Ways of Search") to Carnap ("Elementary and Abstract Terms"). Selections range from about 3 to 25 pages and are preceded with brief biographical sketches and listings of "main works."—*R. A. Littman.*

5909. Wenkart, Antonia. (New York Ontoanalytic Ass., NYC) **The self in existentialism.** *Ann. N. Y. Acad. Sci.*, 1962, 96(3), 814-822.—The self

moves from sensory perception to conceptual ideation. It represents the actor in the struggle between existence and nothingness. The self transcends self-awareness and requires others for self-knowledge. The important decision for man is to accept his self. To the extent that he is able to accept his self, he is free. Time and space are merely attributes of the self experiencing itself. Man cannot be captured by any set of formulations. In its growth, the self is actualizing. Some additional attributes of the self are set forth.—*B. S. Aaronson.*

STATISTICS

5910. Auwood, Joseph A. **Methods of computing simple statistics by means of the Type 026 cardpunch and Type 082 card sorter.** *USN Med. Res. Lab. Rep.*, 1961, 20(3, Whole No. 349), iii, 8 p.—A method of computing simple statistics has been devised utilizing the IBM 026 cardpunch and the 082 card sorter, 2 machines which are basic to any IBM installation. Step-by-step procedures are presented, with examples, for obtaining frequency distribution and such simple descriptive statistics as the mean, standard deviation, median, 2×2 contingency tables, and other similar statistics using the card punch and the card sorter in conjunction with a desk calculator. The limitations of these techniques are also discussed.—*USN MRL.*

5911. Borko, H. (Ed.) **Computer applications in the behavioral sciences.** Englewood Cliffs, N. J.: Prentice-Hall, 1962. 633 p. \$11.65.—In the 1st 2 parts the editor introduces the history, principles, and applications of electronic data processing. Part III describes a variety of computer applications: statistical computations (multiple linear regression, factor analysis, and canonical analysis), computer applications in experimental psychology (studies of perception, automated teaching, problem solving behavior, human language behavior, machine translation of language, and computer generated musical compositions), system simulation studies (artificial neural net theory, medical diagnosis, behavior of large social groups, operation of a business firm, and international relations). The final chapter, also by the editor, forecasts the future of computers in behavioral science research. Each chapter includes a selected bibliography. There are many illustrations and a glossary of computer terms.—*K. J. Hartman.*

5912. Bradley, R. A., Katti, S. K., & Coons, Irma J. (Florida State U.) **Optimal scaling for ordered categories.** *Psychometrika*, 1962, 27(4), 355-374.—This paper deals with the determination of optimal weights for points on scoring scales for subjective comparative experiments. A scoring scale with a specific number of points is considered, and it is assumed that verbal or other indications imply an order to the scale points. The optimal spacing for the scale points is obtained in the sense that treatment or item differences are maximized relative to error or within-treatment variation. The method is presented in sufficiently generalized form to be used directly with any experimental design leading to the analysis of variance. An iterative procedure, suitable for computer use, yields the optimal differences among the ordered scale points. Properties of this procedure are discussed.—*Journal abstract.*

5913. Gorow, Frank F. (Long Beach State Coll.) **Statistical measures: A programmed text.** San Francisco, Calif.: Chandler, 1962. viii, 178 p. \$2.25.—This is a programmed text for study of central tendency, dispersion and correlation. It consists of branching programs for learning to compute the statistics. The student reads the instructions and follows the steps. Depending upon the student's answer to Step 1, he is sent to another step which either confirms his answer if correct, or informs him of his error, guides him in correcting it and then sends him to another step. The use of this scrambled and programmed material is said to permit a reduction of about $\frac{1}{2}$ in the class time assigned to the statistical unit usually given to prospective secondary-school teachers.—R. E. Perl.

5914. Matalon, B. **Une généralisation multidimensionnelle de l'analyse hiérarchique.** [A multidimensional generalization of the scale analysis.] *Bull. Cent. Etud. Rech. Psychotech.*, 1962, 11(1), 45-57.—"When the analysis of responses to a set of items shows . . . [that they] do not shape into a Guttman scale, it may be possible to interpret the results by generalizing scale analysis. . . . The technique suggested consists in finding the 'generators' of the observed set of patterns, i.e. patterns which do not result from the composition of two other observed patterns. Knowing these generators is sufficient to reconstitute observed patterns and to evidence a partial order or several complete orders in the items. In some cases it is possible to represent each item by a point in a multidimensional space and to interpret these dimensions as 'factors' in Coombs and Kao's nonmetrical factor analysis."—V. Sanua.

5915. Nunnally, Jum. (Vanderbilt U.) **The analysis of profile data.** *Psychol. Bull.*, 1962, 59(4), 311-319.—"Methods were suggested for handling 3 problems in the analysis of test profiles: measuring the similarity of profiles, discriminating the typical profiles of two or more groups, and clustering profiles into homogeneous groups. The suggested methods were, respectively, picturing profiles as interpoint distances in Euclidean space, use of the linear multiple-discriminant function, and factor analysis of profile cross-product terms. Some suggestions were given about transformations of profile data before further analysis."—W. J. Meyer.

5916. Rosenthal, Robert, & Gaito, John. (U. North Dakota) **The interpretation of levels of significance by psychological researchers.** *J. Psychol.*, 1963, 55(1), 33-38.—19 Ss (faculty and graduate students) were asked to indicate degree of belief in research results at different p values, once with an n of 10 and then with n equal to 100. Ss had greater confidence in the p levels when they were associated with the larger sample size. Graduate students tended to place more confidence in the p levels than did faculty Ss. Most of the Ss showed a more precipitous loss of confidence in moving from .05 to .10 than at any other levels of significance.—Author abstract.

Experimental Design

5917. Orne, Martin T. (Harvard Medical School) **On the social psychology of the psychological experiment: With particular reference to demand characteristics and their implications.** *Amer. Psychologist*, 1962, 17(10), 776-783.—Taking part in an

experiment is "a special form of social interaction." The S plays a role and places himself under the control of the E; he may agree "to tolerate a considerable degree of discomfort, boredom, or actual pain, if required to do so." The very high degree of control inherent in the experimental situation itself may lead to difficulties in experimental design. The S "must be recognized as an active participant in any experiment." With understanding of factors intrinsic to experimental context, experimental method in psychology may become a more effective tool in predicting behavior in nonexperimental contexts.—S. J. Lachman.

5918. Ryan, Thomas A. (Cornell U.) **The experiment as the unit for computing rates of error.** *Psychol. Bull.*, 1962, 59(4), 301-305.—In reply to Wilson (see 37: 5919), arguments are presented for controlling error rates per experiment rather than per hypothesis. The major contention is that a per hypothesis strategy permits wide variation in the total amount of error expected for different experimental designs involving the same total number of observations.—W. J. Meyer.

5919. Wilson, Warner. (U. Hawaii) **A note on the inconsistency inherent in the necessity to perform multiple comparisons.** *Psychol. Bull.*, 1962, 59(4), 296-300.—The comparison of multiple groups raises the question of the appropriate unit in which to evaluate the research. Thus it would be possible to hold errors constant per comparison, per hypothesis, per experiment, per group, or even per S. ". . . the most defensible decision is to divide our work into separate tests of hypotheses and to hold constant the expected number of errors per hypothesis tested."—W. J. Meyer.

Formulas & Calculations

5920. Boneau, C. Allan. **A comparison of the power of the U and t tests.** *Psychol. Rev.*, 1962, 69(3), 246-256.—"The present paper is intended to present the facts (culled from the literature as well as manufactured for the purpose) about the power of the t test and, in particular, how that power compares with the power of a specific nonparametric competitor in various practical situations."—C. T. Morgan.

5921. Chapanis, Alphonse. (Johns Hopkins U.) **An exact multinomial one-sample test of significance.** *Psychol. Bull.*, 1962, 59(4), 306-310.—The exact multinomial test described in this article can be used to test the significance of variations in the numbers of observations distributed into 2 or more mutually-exclusive categories. When there are only 2 categories the test reduces to the binomial test. The test is valid for samples of any size but it quickly becomes prohibitively difficult to apply as the total number of categories increases. A comparison with the chi-square test shows how seriously the latter may be in error when the number of observations is small.—W. J. Meyer.

5922. Cliff, Norman. (Educational Testing Service) **A note on the adjustment of fourfold tables for "curvilinearity."** *Educ. psychol. Measmt.*, 1962, 22(4), 721-724.—A correlation for "curvilinearity" suggested by Holley for use with dichotomous variables is shown to yield inaccurate results.—W. Coleman.

5923. Cronbach, Jee J., & Azuma, Hiroshi. (U. Illinois) Internal-consistency reliability formulas applied to randomly sampled single-factor tests: An empirical comparison. *Educ. psychol. Measmt.*, 1962, 22(4), 645-665.—"Hypothetical randomly parallel tests were constructed by sampling at random from a pool of dichotomous items with uniform tetrachoric correlations and a rectangular distribution of difficulties. Various reliability formulas were evaluated for each test." 7 formulas were employed including the product moment r_1 coefficient of generalizability; generalized Kuder-Richardson Formula 20; intraclass r for stratified-parallel forms; intraclass r for item-parallel tests; Horst's "corrected" α ; and Kuder-Richardson Formula 21, large sample version. The generalized K-R 20 proved to be highly satisfactory for estimating the score. This applies "when a test is a random sample from a pool of dichotomous items whose content represents a single factor, and whose mean intercorrelations are within the normal range."—W. Coleman.

5924. Cser, János. Pszichologia vizsgálatok gyors feldolgozása egyszerű szerkesztő eljárással. [Quick elaboration of psychological tests by means of simple designing procedure.] *Magyar Pszichol. Szle.*, 1961, 18(1), 45-52.—"The author outlines the elaboration of psychological tests with percentilgraph, pointing out the advantages of this method: explicitness, clearness, exemption from arbitrary computation and lengthy calculation. The performances are arranged in progression and divided into ten equal subgroups; their mean values are marked on the ordinates 5, 15, 25, 35, etc. of the axis of 100 mm. division. The connection of these points gives the percentilgram with approximate accuracy; the mean value as well as quarter digressions can be read directly, without computation."—E. Friedman.

5925. Cureton, Edward E. (U. Tennessee) A note on simultaneous equations and matrix inversion. *Brit. J. statist. Psychol.*, 1962, 15(1), 51-58.—"The note discusses the special advantages of the 'hierarchical method' of solving linear equations, and describes and illustrates in detail the working procedure recommended for calculating inverses in the case of both symmetric and nonsymmetric matrices."—N. Earle.

5926. Gold, R. Z. On comparing multinomial probabilities. *USAF SAM Rep.*, No. 62-81. 1962, 13 p.—The author presents 2 methods for constructing simultaneous confidence intervals for linear functions of the unknown probabilities in independent sequences of multinomial trials. One method permits an infinite number of intervals while the other requires that their number be finite and that the particular linear functions be specified in advance.—M. C. Payne, Jr.

5927. Howard, Kenneth I., & Forehand, Garlie A. (U. Chicago) A method for correcting item-total correlations for the effect of relevant item inclusion. *Educ. psychol. Measmt.*, 1962, 22(4), 731-735.—Equations are derived for computing item-total score r 's when the relevant item is included. Data from the application of 1 formula was compared with r 's obtained with the relevant item excluded. The discrepancies in r were slight with 81% below .025; only 6 discrepancies exceeded .055.—W. Coleman.

5928. Sandon, Frank. (Birmingham Education Committee) The means of sections from a normal distribution. *Brit. J. statist. Psychol.*, 1961, 14(2), 117-121.—Included is a "table for the mean abscissae of vertical sections of the normal curve. The need and usefulness of such a table are illustrated by problems from the field of mental measurement."—H. P. Kelley.

5929. Sandon, Frank. An alternative table for determining means of sections from a normal distribution. *Brit. J. statist. Psychol.*, 1962, 15(1), 71-74.—A table is given "for determining means of vertical sections of the normal curve when the data given consist of the proportions of the total population falling above and below the limits of the sections."—N. Earle.

5930. Sixtl, Friedrich. (U. Hamburg, Von-Melle-Park 15, Germany) Ein Vergleich der Prozent-Quotient-Methode von Clostermann mit anderen Vier-Felder-Korrelationsmassen. [A comparison of Clostermann's percent-quotient method with other estimates of fourfold correlation.] *Z. exp. angew. Psychol.*, 1962, 9(3), 465-473.—It is shown that Clostermann's quotient overestimates the correlation parameter within the relevant range of .5 to .8. Mosteller's estimate of ρ seems still the best method.—W. J. Koppitz.

Factor Analysis

5931. Burroughs, G. E. R. Rotation of axes and psychological space. *Brit. J. statist. Psychol.*, 1962, 15(1), 75.—The author of this note takes issue with certain statements and implications made by Jarrett (see 37: 5938) concerning the appropriateness of the use of certain types of measurement units in factor analysis studies.—N. Earle.

5932. Cattell, Raymond B. (U. Illinois) The basis of recognition and interpretation of factors. *Educ. psychol. Measmt.*, 1962, 22(4), 667-697.—Identification and interpretation of a factor occur after a unique rotational resolution. Alternative ways of expressing a factor "affect both the resolution adopted and the ensuing matching and interpretation decisions." To obtain the best decisions 6 sources of information should be considered: (a) the nature of the dimension-variable (DV) relation profiles; (b) the correlations of entity with other known, landmark factors; (c) its size or "importance" (mean total variance contribution in a defined domain of variables); (d) identification by elimination, i.e., considering other possible matches in matrices planned to give a complete series; (e) study of modifications producible in the 1st 3 by experimental conditions, samples, and designs; e.g., comparing R- and P-techniques; and (f) the behavior of the total factor in manipulative and survey experiments. An example is given based on an N of 500 with 3 source traits involved.—W. Coleman.

5933. Cattell, Raymond B., & Dickman, Kern. (U. Illinois) A dynamic model of physical influences demonstrating the necessity of oblique simple structure. *Psychol. Bull.*, 1962, 59(4), 389-400.—The concepts generated by factor analysis were tested on a known physical model. 32 properties (behaviors) were measured for 80 balls, varying in size, weight, elasticity, and length of string on which some of their "performances" were measured. The

variables were inter-correlated and factor analyzed. As expected from theoretical considerations, 4 factors were extracted; simple structure was attained by oblique rotation but not orthogonal rotation; factor interpretation was most clear for the oblique solution. Implications of the results are discussed.—*W. J. Meyer.*

5934. DeGough, Roy Allen. (Ohio State U.) **Factor space versus common factor space and a technique for extracting all the factors.** *Dissert. Abstr.*, 1962, 22(10), 3733-3734.—*Abstract.*

5935. Gibson, W. A. (Dept. Defense, United States) **An asymmetric approach to multiple-factor analysis.** *Brit. J. statist. Psychol.*, 1961, 14(2), 97-107.—"After a brief history of asymmetric approaches in factor analysis and related fields, there is derived a new asymmetric procedure that avoids communality estimation and other difficulties. This new solution splits a test battery 1 into sub-batteries x and y , each of which spans the same factor as does a test battery 2. This permits finding the unknown transformation that converts any factorization of the between-battery correlations R_{12} into an orthogonal factor matrix reproducing both R_{12} and R_{xx} , the between-sub-battery correlations."—*H. P. Kelley.*

5936. Hampejšová, O. (Charles U., Prague, Czechoslovakia) **Faktorová analýza: Matematická formulace problému a vývoj metod.** [Factor analysis: Mathematical formulation of the problem and the development of methods.] *Ceskoslov. Psychol.*, 1962, 6, 64-78.—Pure mathematical solutions are not generally acceptable to psychology because it is usually impossible to interpret the factors. The rotation problem is discussed along with the efforts to replace subjectivity by truly objective methods. A complete mathematical formulation of factor analysis is needed. (Russian & English summaries)—*V. Břicháček.*

5937. Henrysson, Sten. (U. Stockholm, Sweden) **The relation between factor loadings and biserial correlations in item analysis.** *Psychometrika*, 27(4), 419-424.—The 1st centroid factor loadings obtained from various interitem relations are compared with item discrimination indices commonly used in item analysis. Depending upon what type of matrix is factored, the factor loadings are shown to be related to point biserial and biserial correlations.—*Journal abstract.*

5938. Jarrett, R. F. (U. California) **A note on rotation and psychological space.** *Brit. J. statist. Psychol.*, 1961, 14(2), 109-115.—"The purpose of this note is three fold: to consider the conditions under which the concept of distance (both physical and psychological) and angle (the pure number function of distance) are meaningful; to suggest that there is some evidence that these conditions do not obtain throughout psychological space; and to consider briefly the implications of this evidence." The argument is that distance (and therefore angle) is meaningful only when the space involved possesses the property of dimensional isotropy; isotropic space is defined as one in which measurement operations can be identical regardless of the direction one wishes to measure.—*H. P. Kelley.*

5939. Jöreskog, K. G. (U. Uppsala, Sweden) **On the statistical treatment of residuals in factor analysis.** *Psychometrika*, 1962, 27(4), 335-354.—

A method for estimating in factor analysis is presented. The method is based on the assumption that the residual (specific and error) variances are proportional to the reciprocal values of the diagonal elements of the inverted covariance (correlation) matrix. The estimation is performed by a modification of Whittle's least squares technique. The method is independent of the unit of scoring in the tests. Applications are given in the form of 9 re-analyses of data of various kinds found in earlier literature. (37 ref.)—*Journal abstract.*

5940. McDonald, Roderick P. (U. New England, Australia) **A general approach to nonlinear factor analysis.** *Psychometrika*, 27(4), 397-415.—The method presented attempts to allow for nonlinear, possibly nonmonotonic relations between manifest and latent variates. An attempt is made to provide a workable criterion for choosing between alternative models on the basis of observable data as well as for constructing the appropriate function. An idealized numerical example is given. (15 ref.)—*Journal abstract.*

5941. Paterson, C. R. **The three dimensions of factor analysis: Part I** *Brit. J. statist. Psychol.*, 1962, 15(1), 93.—Questions are asked of Williams and Burt concerning the necessity for considering conclusions drawn from correlating tests, conclusions drawn from correlating persons, and conclusions drawn from correlating values.—*N. Earl.*

5942. Rawson, Harve E., & Rettig, Salomon. (Ohio State U.) **Factor analysis as a controlling technique.** *Educ. psychol. Measmt.*, 1962, 22(4), 725-729.—Factor analysis was used in 2 very different studies for controlling and isolating extraneous and/or contaminating factors. Variables unrelated to the major hypotheses were isolated and their contaminating effects partialled out from the hypothesized criteria-predictor dimension.—*W. Coleman.*

5943. Williams, E. D., & Burt, C. **The three dimensions of factor analysis: II. A reply.** *Brit. J. statist. Psychol.*, 1962, 15(1), 93-94.—Replies are given to the questions raised by Paterson (see 37: 5941) regarding the need for using 3 types of variables in investigating problems of individual differences and their apparent causes in the studies by Williams and Burt.—*N. Earl.*

GENERAL BOOKS & REFERENCE WORKS

5944. Delgado, Honorio, & Ibérico, Mariano. **Psicología: Estudio metodológico del mundo animico.** (7th ed.) [Psychology: Methodological study of the mental world.] Barcelona, Spain: Editorial Científica-Médica, 1961. 311 p.—A survey of the more philosophical concepts in psychology (character, instinct, imagination, self-concept, etc.) from a holistic point of view, presented in 31 essays.—*E. B. Page.*

5945. Duker, Sam. **Master's theses on listening.** *J. Commun.*, 1962, 12(4), 234-242.—Incomplete bibliography of 107 items on listening. References are classified under various headings.—*D. E. Meister.*

5946. Frazer, James George. **The new "Golden Bough."** Garden City, N. Y.: Doubleday, 1961. xx, 426 p. \$195(paper).—A paperback edition of the 1959 abridged edition published by Criterion books.—*E. Y. Borrowman.*

5947. Geldard, F. A. (U. Virginia) **Fundamentals of psychology**. New York: Wiley, 1962. 437 p.—An updated version of Boring, Langfeld, and Weld's *Foundations of Psychology* (see 22: 4186). Without straying into the speculative branches of contemporary psychology, the 22 chapters provide "(1) . . . [some] basic conceptions about science and psychology's place in it; (2) an introduction . . . of the three master rubrics of psychology—motivation, learning, and perception; (3) a return to each of these topics at a 'higher' or 'derived' level; (4) the integration of all three in the specialized and applied areas of psychology; (5) a final look at the frontiers of psychological science." The text assumes an instructor who is knowledgeable in psychology. (286 ref., 2450-item index, Student Workbook, Instructor's Manual)—R. S. Harper.

5948. Harms, Ernest. (Ed.) (Grand Central Hosp., NYC) **Fundamentals of psychology: The psychology of the self**. *Ann. N. Y. Acad. Sci.*, 1962, 96 (3), 681-894.—Proceedings of a conference on self-psychology. (See 37: 5893, 5897, 5901, 5905, 5907, 5909, 6462, 6679, 6769, 6794, 7063, 7065)—B. S. Aaronson.

5949. Sartain, Aaron Quinn; North, Alvin John; Strange, Jack Roy, & Chapman, Harold Martin. **Instructor's manual to accompany "Psychology: Understanding Human Behavior."** New York: McGraw-Hill, 1962. iv, 99 p.—(See 37: 4057).

5950. Wells, Harry Kohlsaatt. Ivan P. Pavlov: **Toward a scientific psychology and psychiatry**. New York: International, 1962. 224 p. \$1.45 (paper).—A paperback edition of the book originally published in 1956.

ORGANIZATIONS

5951. American Psychological Association. Officers, boards, committees, and representatives of the American Psychological Association: 1962-63. *Amer. Psychologist*, 1962, 17(12), 865-887.—S. J. Lachman.

5952. American Psychological Association, Council of Editors. **Summary report of journal operations: Calendar 1961**. *Amer. Psychologist*, 1962, 17(12), 923.—A table indicating manuscripts (number received, number accepted, percentage rejected), printed pages (articles published, total pages published, average lag), and subscriptions (member and nonmember) for the 12 journal publications of the American Psychological Association is presented.—S. J. Lachman.

5953. Crawford, Meredith P. (American Psychological Ass.) **Report of the Treasurer**. *Amer. Psychologist*, 1962, 17(12), 860-864.—S. J. Lachman.

5954. Darley, John G. (American Psychological Ass.) **Report of the Executive Officer: 1962**. *Amer. Psychologist*, 1962, 17(12), 839-842.—Major responsibilities of the Executive Officer are considered. "This year, concern has been forcibly expressed regarding the impact and side effects of our program of accreditation on our academic training centers." There is also concern evidenced regarding the private practice of psychology, the role of psychologist under major health and medical policies, and activities at the state level toward licensing and legislative enactments.

The science, professional affairs, state societies, and national organizations continue to grow effectively.—S. J. Lachman.

5955. Newman, Edwin B. (Harvard U.) **Proceedings of the seventieth Annual Business Meeting of the American Psychological Association, Incorporated: August 31 and September 4, 1962, St. Louis, Missouri. Report of the Recording Secretary**. *Amer. Psychologist*, 1962, 17(1), 843-859.—S. J. Lachman.

PROFESSIONAL PROBLEMS

5956. American Board of Examiners in Professional Psychology. **1962 annual report**. *Amer. Psychologist*, 1962, 17(12), 924-926.—Since its incorporation in 1947, "2,568 candidates have applied for the Diploma of ABEPP." 1557 applications were received and 1116 awards were made under a "grandfather" provision; 1011 other candidates have been received under the mandatory examination provision. Of 852 candidates who have taken the written examination, 706 (83%) passed on the 1st attempt, 66 passed on a 2nd examination, and 33 are awaiting re-examination. Of those passing written examination, 757 have taken the oral examination and 749 of these have been evaluated: 449 (60%) passed on the 1st attempt, 149 qualified on the 2nd examination. Under the provision of mandatory examination diplomas have been granted to 521 in clinical, 37 in counseling, and 40 in industrial to date.—S. J. Lachman.

5957. Moreno, J. L. (Moreno Inst., Beacon, N. Y.) **Le concept du rôle: Lien entre la psychiatrie et la sociologie**. [The concept of rôle: Bond between psychiatry and sociology.] *Evolut. psychiat.*, 1962, 27(3), 327-337.—"The rôle concept originated in the European tradition of the theater. A comprehensive scientific and therapeutic concept of rôle behavior has been developed in the last four decades largely by psychodramatic theorists. . . . Psychiatric rôle theory developed out of carefully prepared experiments and clinical contexts, methods of prevention, treatment of psychoses and neuroses, of marriage and family groups, of interpersonal relations, of problems of industrial adjustment, of the fields of mental hygiene and education."—L. A. Ostlund.

5958. Shepherd, M. (Maudsley Hosp., London, England) **La place de la psychiatrie dans l'éducation médicale aux états-unis et en Angleterre**. [The place of psychiatry in medical education in the United States and England.] *Encephale*, 1962, 51(4), 345-360.—The increasing rôle of psychiatry in medical education due to the development of the concepts of "comprehensive medicine" in the United States and "social medicine" in England is described. Infiltration has been more extensive and rapid in American schools.—W. W. Meissner.

Psychological Personnel

5959. Galinsky, M. David. (U. Michigan) **Personality development and vocational choice: A study of physicists and clinical psychologists**. *Disser. Abstr.*, 1962, 22(7), 2464.—Abstract.

5960. Klein, Frederick L., McNair, Douglas M., & Lorr, Maurice. (Gallaudet Coll.) **SVIB scores of clinical psychologists, psychiatrists, and social workers**. *J. counsel. Psychol.*, 1962, 9(2), 176-179.

—5 areas and 9 scales discriminate between these professions. Ratings of competence and personal psychotherapy are essentially unrelated to scales.—E. R. Oetting.

5961. Lockman, Robert F. (American Psychological Ass.) **Characteristics of APA members in the 1962 "National Scientific Register."** *Amer. Psychologist*, 1962, 17(10), 789-792.—8650 (45%) of 19,370 National Register of Scientific and Technical Personnel questionnaires mailed to American Psychological Association members were returned within a month. Analysis of a 5% sample (432) provides the following information. New York, New Jersey, Pennsylvania, Illinois, Indiana, Michigan, Ohio, and Wisconsin produced, trained, and employed approximately $\frac{1}{2}$ of the 1962 sample. 69% had the doctorate, 28% masters, and 4% bachelor's degree. Age range of respondents was 23-90; median 38. Principal employers were colleges, 39%, and governmental organizations, 28%. Primary full time work activities were clinical and counseling practice 28%, teaching and research 21%, management and administrative tasks, 14%. Median income for full-time employed psychologists was nearly \$11,000.—S. J. Lachman.

Training in Psychology

5962. Caro, Paul Wiley, Jr. (U. Tennessee) **The effect of class attendance and "time structured" content on achievement in general psychology.** *Dissert. Abstr.*, 1962, 22(9), 3260-3261.—Abstract.

5963. McGuigan, F. J., & Ross, Sherman. (Hollins Coll.) **Psychology and the United States science exhibit: Seattle World's Fair, 1962.** *Amer. Psychologist*, 1962, 17(10), 798-800.—"The increasing interest in psychology as a science of behavior is being recognized at the Century 21 Exposition in Seattle, April 21 to October 21, 1962. An entire section on psychology has been included." The 6 exhibits relating to psychology involve: (a) conditioned reactions in salmon, (b) imprinting in chicks, (c) surrogate mothering in monkeys, (d) heredity and environment effects in mice, (e) visual discrimination in pigeons, (f) the value of teaching machines. "The educational effect on the public should be a meaningful one."—S. J. Lachman.

5964. Moss, C. Scott; Riegel, Lyman M., & Schaeffer, Robert W. (National Inst. Mental Health, San Francisco) **Objective assessment of the psychology internship experience.** *J. counsel. Psychol.*, 1962, 9(2), 158-163.—A discussion of the use of a supervisor's rating guide, a trainee's rating guide, and a semantic differential given periodically during internship. Ratings showed significant and meaningful relationships useful in training.—E. R. Oetting.

5965. Ross, Sherman. (American Psychological Ass.) **Educational facilities and financial assistance for graduate students in psychology: 1963-64.** *Amer. Psychologist*, 1962, 17(12), 901-922.—Requirements for admission, institutional facilities and stipends, advice to applicants for financial assistance, and postdoctoral arrangements are discussed. Digests of information on graduate training in psychology relevant to prospective students are presented for 189 colleges and universities.—S. J. Lachman.

5966. Roth, Robert Howard. (Newark State Coll.) **A survey of social psychology courses in teacher training institutions.** *J. Psychol.*, 1963, 55(1), 169-173.—This is the 2nd of a series of studies of the teaching of social psychology courses in American institutions of higher learning. Results of a mailed questionnaire survey of social psychology courses in teacher training institutions are presented and discussed. Inferences are drawn from the data regarding the possible lack of sufficient practice in the classroom of what is expounded in the subject matter of the course.—Author abstract.

PSYCHOLOGY ABROAD

5967. ———. **Ma matsanu be-150 hovrot "Urim."** [What we found in 150 issues of *Urim*.] *Urim*, 1961-62, 19, 527-530.—A list of psychological papers published in 19 volumes of this journal, divided into the following groups: general psychology, educational psychology, child psychology (subdivided), emotional development, physical development, psychology of deviant children, schools in psychology, diverse problems (environment, personality, thinking, learning, etc.), treatment methods, mental hygiene, psychology in teacher training colleges, and guidance.—H. Ormian.

5968. Clignet, R. **Réflexions sur les problèmes de psychologie en Afrique.** [Reflections on problems in psychology in Africa.] *BINOP*, 1962, 18(2), 86-94.—In the selection for and guidance in schooling and vocational training on the Ivory Coast, it was found that test results had to be interpreted in the light of the special conditions. Rural-urban differences and high correlation of success with socio-economic background of the parents pointed to the important part acculturation played in the children's ability to pass tests. Ethnic subgroups among the Africans also showed differences in achievement. Modes of perception, including difficulties with concepts of rectilinearity and colors, seemed directly related to the culture. Personality studies also highlight the need to relate individual character to the different cultural norms. Measuring instruments of psychologists will have to be adapted, reinterpreted, and newly standardized on this different population.—D. Mindlin.

5969. Cook, D. R. (Northeastern U.) **Problems of guidance in India.** *J. voc. educ. Guid.*, Baroda, 1962, 8(4), 1-6.—Guidance in India is largely a transplant from the United States which has not taken root. Traditions of democratic right and the emphasis on personal worth are still largely absent in India. India needs to produce a guidance literature of her own. The still prevalent caste system poses many problems for guidance workers, who must be educational leaders as well, especially in working towards expansion of the curriculum. Guidance plays a very different role in an underdeveloped country. A primary need in India is for educational guidance since so many students are floundering in ill-planned courses. The guidance movement must, of course, clearly dissociate itself from astrology and the like. Guidance in India has yet to develop an adequate self-concept.—W. L. Barnette, Jr.

5970. Rosenfeld, Jona M., & Doron, Abraham. (Hebrew U., Jerusalem, Israel) **Social welfare in Israel.** *J. Jewish communal Serv.*, 1962, 38(4), 340-

350.—A broad discussion of the basic problems involved in the establishment of a social welfare program in the new state of Israel. The needs for social security services of immigration, age, family problems, employment, education, and health are touched upon. The implications for professional workers seeking a solution to the current needs of the country are pointed out.—*M. A. Seidenfeld.*

EXPERIMENTAL PSYCHOLOGY

5971. Melton, Arthur W. (U. Michigan) Editorial. *J. exp. Psychol.*, 1962, 64(6), 553-557.—A discussion of the editorial policies and philosophy over the past 12 years of the author's editorship of the *Journal of Experimental Psychology*.—*J. Arbit.*

5972. Pavlov, I. P. *Essays in psychology and psychiatry, including a section on sleep and hypnosis*. New York: Citadel, 1962. 189 p. \$1.95 (paper).—A paperback edition of selections from I. P. Pavlov's *Experimental Psychology*, published by Philosophical Library in 1957.

5973. Welford, Norman T. (Fels Research Inst., O.) The SETAR and its uses for recording physiological and behavioral data. *IRE Trans. biomed. Electron.*, 1962, 9(3), 185-189.—"The SETAR (Serial Event Timer and Recorder) is an electronic digital elapsed-time recorder with punched paper tape output. It is a multichannel machine and will time and record the occurrence of successive events within a single channel or between different channels. An event is anything which will make or break one or more of the input circuits. The SETAR can directly record behavioral variables, such as reaction times and intertrial intervals and any physiological variables available as time measures, such as heart rate recorded from successive R-R intervals. The present machine will record in 100ths of a second and take readings up to ten times per second. Due to internal buffer storage three readings may be made at rates up to 100 per second. Events separated by less than 100th of a second are recorded as though they were simultaneous."—*C. T. Morgan.*

PSYCHOPHYSICS

5974. Abbey, David S. (Defence Research Medical Lab., Toronto, Canada) Cross-modality matching of numerosity and pitch. *Canad. J. Psychol.*, 1962, 16(4), 283-290.—Magnitude estimates of numerosity and of pitch, and cross-modal matches were made by different groups of Ss. Using only raw scores, a procedure is demonstrated for the accurate prediction of a sensation function equivalent to Steven's, from the combination of a linear and a curvilinear function.—*R. S. Davidson.*

5975. Brichcín M. (Charles U., Prague, Czechoslovakia) Nová fakta o vlivu intenzity podnětu na volní reakci. [New facts concerning the influence of the intensity of the stimulus on voluntary reaction.] *Českoslov. Psychol.*, 1962, 6(1), 1-24.—Detailed analysis of the influence of 40, 60, 80 and 100 db. tones of 1000 cycles on the latency and other parameters of the course of the forearm flexion. Latency as well as other time parameters of the course of movement are shortened; speed, acceleration, and trajectory of movement are increased under the influence

of intensified stimuli. These changes are statistically significant. Increasing the intensity of strong stimuli has greater influence than the same increase in weak stimuli. Observed changes of parameters are in closer relation to the sensory scale of loudness (in "sones"—Stevens) than to the stimuli in decibels. Man reacts to the changes of stimulus intensity as to a signal which informs him due to his experience of the meaning of these changes. Sensory intensity does not reflect only the intensity of external stimuli but also the intensity of the reactions of these stimuli. (Russian & English summaries, 52 ref.)—*V. Bricháček.*

5976. Greenberg, Gordon Z. Cueing signals and frequency uncertainty in auditory detection. *USAF ESD tech. docum. Rep.*, 1962, No. 62-38. iv, 47 p.—3 experiments were concerned "with the influence of one signal upon the detectability of a subsequent signal in an auditory detection task." In the 1st experiment, when the cueing signal was a single frequency, it was relatively ineffective as an aid to detection. In a 2nd experiment, with additional frequency uncertainty introduced, detectability increased in the presence of the cueing signal. In the 3rd experiment, designed to provide an explanation of the manner in which cueing aids detection, support was obtained for a "description of the human listener's performance, in that situation, by the 'narrow-band observer' model rather than by the 'broad-band observer' model."—*C. T. Morgan.*

5977. Hohle, Raymond Herbert. (U. Oregon) Some empirical applications and evaluations of two models for discriminability scales: Pair comparisons and successive intervals. *Dissert. Abstr.*, 1962, 22(7), 2476-2477.—*Abstract.*

5978. Krantz, David Leo. (Northwestern U.) The relation of range and density changes to response language in the method of single stimuli. *Dissert. Abstr.*, 1962, 22(9), 3274.—*Abstract.*

5979. Short, Jerry Gene. (U. Houston) Variables of response mode and training affecting absolute judgment behavior. *Dissert. Abstr.*, 1962, 22(11), 4075-4076.—*Abstract.*

5980. Turner, Edward D., & Bevan, William. (Kansas State U.) Simultaneous induction of multiple anchor effects in the judgment of form. *J. exp. Psychol.*, 1962, 64(6), 589-592.—"The purpose of the present experiment was to determine if an anchor stimulus which differed from its psychophysical series on more than a single dimension could effect shifts in judgment on each of the dimensions on which it differed from the series. Accordingly, Ss were asked to judge a series of rectangular figures which varied in shape, size, and lightness. Anchor stimuli which represented marked deviations from the series values on two but not on the third dimension were included in the order of presentation. Three groups of Ss were used so that all combinations of two dimensions were anchored with the third available for control data. Analyses of variance performed on the data for each of the three dimensions indicated that multiple anchoring had occurred."—*J. Arbit.*

5981. Valter, V. (Slovenskej Akad. Vied, Bratislava, Czechoslovakia) Závislosť pocitu od podnetu meniacieho sa v case: I Matematicky formulovaná hypotéza. [The dependence of the sensation upon a stimulus changing in time: I. Mathematically for-

mulated hypothesis.] *Psychol. Stud.*, Bratislava, 1961, 3, 81-86.—The stimulus in the Weber-Fechner law is considered as a function of time. Presuming the existence of threshold speed one can deduce the dependence of the course of intensity of the sensation from the temporally variable stimulus. (Russian & English summaries)—*V. Břicháček*.

PERCEPTION

5982. Bonaventura, Enzo. *Il problema psicologico dello spazio*. [The psychological problem of space] Florence, Italy: Felice Le Monnier, 1961. xii, 146 p. L. 2000.—The 1st part of a work dedicated to the proposition that "Space and time are the fundamental axioms of any scientific systematization of human experience." It reviews experimental results on visual, tactual-kinetic, and auditory perception up to 1938.—*L. L'Abate*.

5983. Chatterjea, R. G., & Saha, G. B. (Calcutta, India) Influence of controlled time gap on estimation of duration. *Indian J. Psychol.*, 1962, 37 (2), 85-88.—The estimation of duration of a visual stimulus by reproduction of that interval by S after a voluntarily controlled time gap is overestimated, but to a lesser extent than when E controls the time gap before estimation.—*J. T. Cowles*.

5984. Clower, Robert Park. (U. Florida) The interdependence of velocity, distance and time as perceptual contents. *Dissert. Abstr.*, 1962, 22(9), 3272.—*Abstract*.

5985. Cohen, John. (U. Manchester, England) Tiempo subjetivo. [Subjective time.] *Rev. Psicol. gen. apl.*, Madrid, 1962, 17(61), 5-17.—The author considers the investigation over decades of the factors affecting temporal awareness and apparent temporal length, such as differential strength of 2 stimuli and related phenomena. He suggests further avenues of investigation in dreams, mental illness, and sex experience.—*E. B. Page*.

5986. Dreese, William Robert. (U. Kansas) Structural and meaningful context in tachistoscopic recognition. *Dissert. Abstr.*, 1962, 22(11), 4093.—*Abstract*.

5987. Fiss, Harry. (New York U.) State of consciousness and the subliminal effect. *Dissert. Abstr.*, 1962, 22(11), 4093-4094.—*Abstract*.

5988. Johnson, Ronald C., Thompson, Calvin W., & Frincke, Gerald. A response to Striker's comments on "Word Values, Word Frequency, and Visual Duration Thresholds." *Psychol. Rev.*, 1962, 69(3), 239-240.—(See *Psychol. Rev.*, 1962, 68(6), 420-422) Any "redefinition of word value that serves to increase the testability of certain experimental questions, generates research, and provides us with a different and . . . more correct view of reality, is . . . [not] to be rejected merely because it violates traditional usage."—*C. T. Morgan*.

5989. Taylor, James G. (U. Cape Town, South Africa) The behavioral basis of perception. New Haven, Conn.: Yale Univ. Press, 1962. xv, 379 p. \$8.50.—A behavioral hypothetico-deductive theory of perception and consciousness, relying heavily on ideas of Hull and Ashby, is presented. The emphasis is on visual perception. A notation derived from set theory is used. Ashby's notion of the multistable system is a central theme. 3 experiments making use of invert-

ing or distorting lens are reported. Ss wearing such lens only part of the time ultimately come to perceive the environment as remaining unchanged after taking off or putting on the lens. A mathematical appendix by Seymour Papert is included.—*C. T. Morgan*.

5990. Thinès, G. (Louvain U., Belgium) Contribution à la théorie de la causalité perceptive. [Contribution to the theory of perceptual causality.] Louvain, Belgium: Publications Universitaires Louvain, 1962. 124 p. Belg. Fr. 140.—A new series of experiments is reported on the phenomenological aspects of Michotte's coupling effect in the perception of induced motion. Of primary interest is the effect on the incidence of causal responses of the duration of the stationary object in the perceptual field before it is acted upon by the moving object. The integrative aspects of the movement of several point sources with common trajectories are also studied. It is concluded that the results of these experiments shed light on the very important role played by subjective factors in the formation of structures having causal significance.—*G. H. Mowbray*.

Illusions

5991. Kirschenbaum, Martin Jules. (U. Kansas) The effects of verbal reinforcement and experimenter attitude on the perception of a three-dimensional mirror cube illusion. *Dissert. Abstr.*, 1962, 22(9), 3273-3274.—*Abstract*.

5992. Murray, Patricia Ann. (Fordham U.) A quantitative study of the Ames' oscillatory illusion. *Dissert. Abstr.*, 1962, 22(11), 4099-4100.—*Abstract*.

Aftereffects

5993. Baird, J. C., Gulick, W. L., & Smith, W. M. (U. Delaware) The effects of regard upon the size of after-images. *Psychol. Rec.*, 1962, 12, 263-271.—3 experiments were conducted. In Experiment 1, with the use of a bracketing technique of measurement, the physical size of the negative after-image was found to be uninfluenced by different angles of regard (up, straight, and down). In Experiment 2 with a comparison technique (method of limits) the apparent size of the afterimage appeared significantly smaller when the eyes were elevated from the straight position. Experiment 3 compared directly the apparent size of the afterimage and angle of regard relative to the size of the image at a different angle of regard. The results agreed with those of the 2nd experiment. Relevance of the findings to the study of the moon illusion was discussed.—*R. J. Seidel*.

5994. Carlson, Jean Burke. (Northwestern U.) Effect of amount and distribution of inspection time and of length of decal interval on size of kinesthetic aftereffect. *Dissert. Abstr.*, 1962, 22(8), 2882.—*Abstract*.

5995. Pick, Herbert L., Jr., Hetherington, Marvis, & Belknap, Roland. (U. Wisconsin) The effects of differential visual stimulation after induction of visual aftereffects. *J. exp. Psychol.*, 1962, 64(5), 425-429.—The effects of 3 conditions of poststimulation on a Köhler-Wallach figural aftereffect and a Gibson negative aftereffect were investigated. Condition I was normal stimulation, obtained by looking around the room; Condition II was

homogeneous lack of stimulation, obtained by wearing a black blindfold; Condition III was homogeneous light stimulation obtained by exposure to a "ganzfeld." The Gibson aftereffect decreased normally under all 3 conditions. The ganzfeld enhanced the Köhler-Wallach aftereffect, the blindfold retarded the decrease in the aftereffect, and looking around the room permitted the normal disappearance of the figural aftereffect.—*J. Arbit.*

5996. Taylor, M. M. (Defence Research Medical Lab., Toronto, Canada) The distance paradox of the figural after-effect in auditory localization. *Canad. J. Psychol.*, 1962, 16(4), 278-282.—S indicated the radial locus of a noise source with reference to a visible scale. "The stimulus" and "the anchor" which immediately preceded and followed it were white noise at the same level. The position of the anchor was varied. With the anchor to the right the stimulus was displaced to the left, with maximal effect between 20° and 35°. With further separation the displacement was reduced until at 90° it approached zero. The results and those of Krauskopf are interpreted as displacement of the perceived locations of the sound sources, rather than that of the perceived medial plane.—*R. S. Davidson.*

5997. Taylor, M. M. (Defence Research Medical Lab., Toronto, Canada) Figural after-effects: A psychophysical theory of the displacement effect. *Canad. J. Psychol.*, 1962, 16(4), 247-277.—A linear model is proposed for predicting displacement effects of anchors on a single test point. The bias of the judged position of a point in space is a weighted average of the biases of the judgments relative to the different anchors and of the unbiased absolute judgment. Predicted functions are compared to the data of several experiments by different investigators, and the limitations of the model are discussed.—*R. S. Davidson.*

VISION

5998. Havens, Leston L., & Foote, Warren E. (Massachusetts Mental Health Cent.) The effect of competition on visual duration threshold and its independence of stimulus frequency. *J. exp. Psychol.*, 1963, 65(1), 6-11.—The effect of prior word usage on visual duration thresholds has been studied under tachistoscopic conditions permitting control of competing or interfering responses. The degree of competition among these responses was significantly correlated with threshold. Stimulus frequency was not a significant variable under these conditions. We conclude that visual duration thresholds are not primarily a function of the frequency of prior usage of stimuli but of the ability or inability of the stimuli to evoke high frequency competitive responses.—*Journal abstract.*

5999. Valter, V. (Slovenskej Akad. Vied, Bratislava, Czechoslovakia) Zariadenie pre binokulárnu intermitentnú svetelnú stimuláciu s možnosťou vzájomného fázového posunu zámkmitov. [A device for binocular intermittent light stimulation with the possibility of mutual phase shift of light flashes.] *Psychol. Stud., Bratislava*, 1961, 3, 265-268.—A description of a device for binocular intermittent light stimulation which, utilizing the features of polarised filters, renders it possible to reach a mutual phase shift of light flashes for both eyes that can be altered

continuously. (Russian & English summaries)—*V. Bricháček.*

Space Perception

6000. Bartley, S. Howard; Nelson, Thomas M., & Soules, Elaine M. (Michigan State U.) Visual acuity under conditions of intermittent illumination productive of paradoxical brightness. *J. Psychol.*, 1963, 55(1), 153-163.—Visual acuity was measured for intermittently illuminated Snellen type letter "Es." Several groups of naive students and both senior authors served as Os. Rates, pulse-to-cycle fractions, and intensities productive of brightness varying from enhancement (Brucke-Bartley) to Talbot levels were used. Visual acuity for the same targets in steady state conditions was also measured. Temporally induced brightness increases had an effect counter to intensity-produced brightness increases within the range of conditions used. Results were discussed in terms of the alternation of response theory.—*Author abstract.*

6001. Braunstein, Myron L. (U. Michigan) The perception of depth through motion. *Psychol. Bull.*, 1962, 59(4), 422-433.—Motion perspective is the phenomenon that as an object moves, the projections of its surface features and of its contours undergo certain regular transformations. The retinal image undergoes similar transformations. This aspect of depth perception has received comparatively little attention. Theory has been primarily based on gestalt formulations, and, more recently, an empirical approach has been suggested which is based on the use of high speed computers. The latter approach appears quite promising.—*W. J. Meyer.*

6002. Brown, Donald Ray. (Purdue U.) An evaluation of the role of selected stimulus parameters in the visual discrimination performance of human subjects. *Dissert. Abstr.*, 1962, 22(7), 2472.—*Abstracts.*

6003. Deutsch, J. A. A system for shape recognition. *Psychol. Rev.*, 1962, 69(6), 492-500.—2 variations of a neurologoical theory of shape recognition that accounts for many of the phenomena of shape constancy. Emphasis is placed on the role of the horizontal cells.—*C. T. Morgan.*

6004. Fisch, Ralph Irving. (U. Kansas) The effect of conditioning of attention on depth perception and speed of object recognition. *Dissert. Abstr.*, 1962, 22(7), 2473-2474.—*Abstract.*

6005. Gogel, W. C., Wist, E. R., & Harker, G. S. (Fort Knox, Ky.) A test of the size-distance invariance hypothesis. *USA Med. Res. Lab. Rep.*, 1962, No. 545. ii, 23 p.—The size-distance invariance hypothesis was tested using 3 magnitudes of effective interpupillary distance (base). Devices providing an increased, normal, or decreased base were used to view targets at 5, 10, 15, or 20 ft. Both perceived relative and perceived absolute size and distance were measured. The results were used to test the size-distance invariance hypothesis which states that, for an object of constant angular size, the ratio of perceived absolute size to perceived absolute distance is a constant. It was found that while perceived absolute size and perceived absolute distance were related, the ratio of the 2 varied significantly as a function of both physical distance and base.—*USA MRL.*

6006. Goldstein, Jacob, & Wiener, Charles. (State U. New York) On some relations between the perception of depth and of movement. *J. Psychol.*, 1963, 55(1), 3-23.—Gemelli's findings concerning directional differences in phenomenal speed were subjected to an experimental test. No evidence of consistent right-left differences in phenomenal speed was found. Other effects were obtained, none of which are described in Gemelli's paper. These included phenomenal changes in speed and phenomenal depth effects under conditions where 2 filmed disks were moving in opposite directions at the same uniform physical speeds along parallel horizontal pathways. Under other conditions "recoil" effects were obtained. The findings are discussed in relation to: the Gestalt laws of organization, the framework as a determinant of phenomenal speed, stereokinetic phenomena (including the kinetic depth effect), phenomenal distance, and various studies in the field of perception.—*Author abstract.*

6007. Kinsbourne, M., & Warrington, Elizabeth K. (National Hosp., London, England) The effect of an after-coming random pattern on the perception of brief visual stimuli. *Quart. J. exp. Psychol.*, 1962, 14(4), 223-234.—The perception of briefly exposed visual forms is shown to be masked by an after-coming random pattern stimulus of approximately equal intensity. This effect occurs only under certain well defined conditions; it is limited by the minimum stimulus exposure time in excess of threshold which overcomes masking (critical stimulus duration) as well as by the minimum interval between presentation of the 2 stimuli which permits evasion of the masking action (critical interval). Over the range of stimulus duration in which masking occurs, critical interval varied with stimulus duration in such a way that the interval multiplied by the stimulus duration equals a constant. Critical stimulus duration and critical interval at threshold are shown to vary little under a variety of conditions. The effect of the random pattern stimulus is limited to the part of the visual field to which it is presented.—*Journal abstract.*

6008. Kinsbourne, M., & Warrington, Elizabeth K. (National Hosp., London, England) Further studies on the masking of brief visual stimuli by a random pattern. *Quart. J. exp. Psychol.*, 1962, 14(4), 235-245.—A brief visual test stimulus may be masked by a preceding random pattern of roughly equal intensity in the same way as by a succeeding random pattern. The parameters of random pattern duration, interval between stimuli, and test stimulus duration limiting the masking effect, show a regularity very similar in the 2 conditions. When the random pattern precedes the test stimulus, the relationship between the 2 may be stated as follows:

$$\text{Stimulus duration} \times \text{interval} = \text{a constant.}$$

The identical effects are found when the 2 stimuli are presented separately, one to each eye, both for random pattern preceding and succeeding the test stimulus. It was concluded that masking resulted through the same central interaction, whether produced by the preceding or succeeding random pattern. The interaction may be related to, and occur within the limits of, apparent simultaneity of rapidly successive visual stimuli.—*Journal abstract.*

6009. Land, Edwin H., & Daw, Nigel W. (Polaroid, Corp., Cambridge, Mass.) Binocular combination of projected images. *Science*, 1962, 138 (Whole No. 3540), 589-590.—2 color-separation positive transparencies of a scene, one projected with "red" light and the other with tungsten lamp light, were superimposed on a screen. The light was polarized so that an O wearing an appropriate viewer could see both images in each eye or the "red" image in one eye and the "white" image in the other. These 2 situations gave different results, not the same results, as some previous investigators have claimed. Land's major results cannot be "obtained stereoscopically." We conclude that the process by which color is formed could possibly be a process of the retina or the lateral geniculate body, and does not necessarily have to be a process of the cerebral cortex as implied by the binocular experiments which purported to give the fuller gamut of color.—*Journal abstract.*

6010. Pierce, Jan Roberts. (U. Illinois) Some parameters of tachistoscopic word thresholds. *Dissert. Abstr.*, 1962, 22(10), 3749-3750.—*Abstract.*

6011. Smith, Olin W., Smith, Patricia Cain. (Cornell U.) On motion parallax and perceived depth. *J. exp. Psychol.*, 1963, 65(1), 107-108.—The adequacy of the combination of a "two-velocity" motion parallax and a continuous gradient of horizontal velocities as a stimulus for perceived depth and distance between 2 surfaces was tested on 182 children and adults. A shadow caster was used. Order of the surfaces in depth was perceived as would be predicted by motion parallax by all Ss except one. The distance of separation in depth of the surfaces was indeterminate. The perceived slant of the surfaces was not as predicted by parallax. No developmental differences were observed.—*Journal abstract.*

6012. Uhr, Leonard. (U. Michigan) "Pattern recognition" computers as models for form perception. *Psychol. Bull.*, 1963, 60(1), 40-73.—This paper reviews computer simulations of pattern recognition to indicate their relevance as models of form perception. The different types of programs are discussed and compared, and an attempt is made to assess their relative abilities. An attempt is made to exhibit certain similarities underlying superficially different approaches. Various specific simulations are compared with models and suggestions in the psychological literature. (159 ref.)—*Journal abstract.*

6013. van de Geer, John P., & de Natris, Peter J. A. Dutch distorted rooms from the seventeenth century. *Acta psychol., Amsterdam*, 1962, 20(2), 101-103.—The Ames' distorted rooms are based on the principle that any particular pattern of retinal stimulation can be provided by an infinite number of external configurations. These same principles underly several boxes painted by a pupil of Rembrandt as "trompe l'oeils" in the 17th century. Problems of interior painting led the Dutch school to avoid emphasis on the vanishing point. The peepbox solves the problem by eliminating a restricted fixation point.—*G. Rubin-Rabson.*

6014. Wienke, Richard, & Schwartz, Ira. The effect of spectacles and contact lenses on the Rayleigh equation. *USN Med. Res. Lab. Rep.*, 1961, 20(10, Whole No. 356), 4 p.—(Originally published in *Farbe*, 1960, 9(1-3), 49-52.) Refractive error

has been shown to be a factor in the establishment of color mixture data that involve red and green. Since size of retinal image is known to affect the red/green ratio also, the part played by magnification in ophthalmic correction of refractive error was explored. Correction by means of contact lenses was compared with that by spectacle lenses and found to produce no difference in red/green ratio. Size difference of the order of those inherent in the correction of ametropia do not appear to affect the red/green ratio.—*USN MRL.*

Color Vision

6015. Balaraman, Shakuntala. (Hindu, Mt. Road, Madras, India) **Color vision research and trichromatic theory: A historical review.** *Psychol. Bull.*, 1962, 59(4), 434-448.—"After more than a century of scientific research in color vision the trichromatic theory continues to face theoretical contradictions and unexplained facts. Trichromatic theories everywhere should rigorously examine the theory's basic assumptions, provide much more experimental data on the basic visual functions, and honestly ask themselves the question: should the theory be subject to drastic revision or should it be replaced by some other theory?"—*W. J. Meyer.*

6016. Beare, Aleeza Cerf. (Columbia U.) **Frequencies of color names as functions of wave-length.** *Dissert. Abstr.*, 1962, 22(9), 3271.—*Abstract.*

6017. Brindley, G. S. (U. Cambridge, England) **Two new properties of foveal after-images and a photochemical hypothesis to explain them.** *J. Physiol., London*, 1962, 164, 168-179.—The negative afterimage of a brief, very bright flash of light on the fovea shows sharp detail at first, but progressively blurs during the following 15-20 min. The blurring is not due merely to fading and is independent of the light conditions following initial exposure. The negative afterimage of an orange-red or orange flash is surrounded by a green halo which remains for at least 15 min. If shorter wave-length light is added to the flash, the color of the afterimage is unaffected, but the green halo either does not appear or disappears within 2 min. It is hypothesized that late foveal afterimages depend wholly on products of photolysis of cone pigments, which diffuse and decrease the sensitivity of other cones of the same type.—*D. R. Peryam.*

6018. National Physical Laboratory. (Teddington, England) **Visual problems of color: A symposium. Vol. 1.** New York: Chemical Publishing Company, 1961. 395 p. \$8.50.—Originally published by Her Britannic Majesty's Stationery Office in 1958, this is the 1st American edition of the symposium held in England in 1957. Volume 1 covers retinal chemistry and the physiology of vision, brightness matching and color matching, as well as color vision and the natural image.—*E. Borrowman.*

6019. National Physical Laboratory. (Teddington, England) **Visual problems of color: A symposium. Vol. 2.** New York: Chemical Publishing Company, 1961. 367 p. \$8.50.—(See 37: 6018) Volume 2 covers subjective color measurement, temporal effects, and defective color vision; electrophysiological aspects of vision, particularly color vision; and color theories.—*E. Borrowman.*

6020. Prits, A. K. (Sakhalinskii Complex Research Inst., Siberian Division Acad. Sciences, USSR) **Statsionarnye sostoyaniya otkrytykh sistem i teoriya tsvetnogo zreniya.** [Stationary states of open systems and the theory of color vision.] *Dokl. Akad. Nauk SSSR*, 1962, 142(6), 1403-1404.—Starting with the assumption of living tissue having a state of constancy of entropy with the rate increase of entropy equalling the rate of decrease, a relationship is derived between the frequency of neural impulses on the one hand, and the energy and visibility function of light on the other hand.—*H. Pick.*

6021. Shepard, Roger N., & Chang, Jih-Jie. (Bell Telephone Lab., Murray Hill, N. J.) **Stimulus generalization in the learning of classifications.** *J. exp. Psychol.*, 1963, 65(1), 94-102.—6 different classifications of the same set of 8 Munsell colors into 2 equal subtests were learned by a paired-associate method in which one verbal response was associated with each of the 4 colors in one subset while a 2nd verbal response was associated with each of the 4 colors in the other subset. A condition of identification learning was also included in which a different response was associated with each of the 8 colors. In accordance with a proposed principle of stimulus generalization for classification learning, 78% of the variance of the difficulties of the 6 classifications was found to be accounted for by the pair-wise confusions among the same stimuli as determined from identification learning.—*Journal abstract.*

6022. Thomas, David R., & Hiss, Richard H. (Kent State U.) **A test of the "units hypothesis" employing wave-length generalization in human subjects.** *J. exp. Psychol.*, 1963, 65(1), 59-62.—An experiment was performed to test 2 hypotheses suggested by Mednick and Freedman (1960) concerning the role of the number of intervening test stimuli in determining generalization decrement. 3 different groups of 20 female college students viewed a monochromatic light of 530 m μ (green) for 60 sec. and then were subjected to 9 different random series of wave lengths, with instructions to respond only to the original color. Group I was tested for generalization with the series 520-540 m μ in 5-m μ steps; Group II received 510-550 m μ in 10-m μ steps; whereas Group III received 490-570 m μ in 20-m μ steps. In agreement with Mednick and Freedman it was found that the more stimuli intervening between the CS and the test stimulus the greater the generalization decrement. Contrary to their position, however, the physical size of the stimulus unit was also found to be a significant factor.—*Journal abstract.*

Visual Sensitivity

6023. Gavini, Hélène. **Apprentissage et transfert dans le seuil différentiel de luminance.** [Learning and transfer in differential thresholds of luminance.] *Bull. Cent. Etud. Rech. Psychotech.*, 1962, 11(1), 13-25.—36 persons participated in the experiment. They were divided into 6 groups corresponding to 3 levels of luminance of the reference-field and to the 2 types of learning (distribution and massed). It was found that the differential threshold of luminance decreases during successive tests, the distributed learning being more efficient than the massed one. The regression curve of the threshold values in terms of the successive tests is not linear,

most progress occurring at the beginning of learning. The transfer phenomenon is very clear and shows that central factors are certainly responsible for this improvement, but "detailed consideration of the results indicates that it might well be that these factors are not solely responsible for the progress achieved."
—V. Sanua.

6024. Lipkin, Bernice Sacks. (Columbia U.) **Monocular critical flicker fusion as a function of the area and intensity of a contralateral steady light.** *Dissert. Abstr.*, 1962, 22(9), 3274-3275.—*Abstract.*

6025. Luria, S. M., & Kinney, J. A. S. **The interruption of dark adaptation.** *USN Med. Res. Lab. Rep.*, 1961, 20(1, Whole No. 347), 6 p.—The courses of readaptation have been plotted for 2 Os who have been exposed for 5, 10, 15, or 20 sec. to lights whose brightnesses encompass the usual range of artificial photopic illumination. It is shown that short interruptions require relatively long readaptation times, and even the dimmest photopic red stimulus, exposed for only 5 sec., may require a readaptation time of 15 sec. or more.—*USN MRL.*

6026. Rushton, W. A. H., & Westheimer, G. (U. California, Berkeley) **The effect upon the rod threshold of bleaching neighboring rods.** *J. Physiol., London*, 1962, 164, 318-329.—2 possible explanations of the rise in rod threshold after bleaching rhodopsin are: (a) the rods need more light to generate their signals, and (b) the summation pool needs more signals to activate the optic nerve. Rods were bleached by an intense electronic flash in 2 ways: interposing a grating to produce a striped bleach on the retina, and using a filter to produce the same total light on the retina. Dark adaptation curves for the 2 conditions were the same. This result is considered as supporting explanation (b).—*D. R. Peryam.*

6027. Strehan, Margaret L. (Columbia U.) **Foveal critical fusion frequency luminance functions for light of various wavelengths.** *Dissert. Abstr.*, 1962, 22(10), 3751-3752.—*Abstract.*

Eye Movements

6028. Bang, Vinh, & Rutschmann, Jacques. **Un dispositif destiné à enregistrer les mouvements oculaires.** [An arrangement for the study of eye movements.] *Arch. Psychol., Geneva*, 1961, 38 (Whole No. 150), 143-151.—A description of the apparatus and procedures for the measurement of eye movements of Ss who are asked to make perceptual comparisons. The recording method involves direct filming of the movements of the reflection of the cornea.—*H. C. Triandis.*

6029. Gurevich, B. KH. (Inst. Physiology, Leningrad, USSR) **Znachenie "obratnykh svyazey" po I. P. Pavlovu v formirovani i i protekanii uslovnnykh refleksov.** [Significance of "feedback" according to I. P. Pavlov in the formation and development of conditioned reflexes.] *Vop. Psikh.*, 1962, No. 3, 85-94.—A feedback model based on conditioned eye movement experiments of the author is used to explain complex behavior such as constancy and to relate this behavior to elementary conditioned reflexes. The author's previous experiments have shown that eye movements can be conditioned to

auditory signals with points of light serving as the UCS. Although the characteristics of these eye movements are different than unconditioned eye movements they are more or less reliable themselves. In order for such movements to occur and themselves to be corrected, the author hypothesizes the existence of a direct connection between a proprioceptive center and the eye-movement effector center. This idea is then used as a means of explaining phenomena such as constancy whereby information seems to be added to the basic stimulation.—*H. Pick.*

6030. Khomskaya, E. D. (Moscow, USSR) **K. probleme afferentatsii dvizhenii glaz.** [On the problem of afferentation of eye movements.] *Vop. Psikh.*, 1962, No. 3, 73-84.—Eye movements were recorded by photoelectrical cells with light reflected from the eye while Ss were asked to perform 4 tasks. The 1st task was to look back and forth between 2 points of light 30° apart. The 2nd was to track a light moving back and forth through a 30° displacement at rates which varied from .32 to 2.08 cps. The 3rd task was a repeat of the 1st to see if fatigue effects occurred. The 4th task was to track a moving light by memory, i.e. to continue tracking movements after the light was extinguished. In the 1st task and 3rd task there occurred saccadic eye movements with short fixations at the 2 light points. The average rate for all Ss was 1.27 cps but large individual differences were noted. In the 2nd task eye movements were not saccadic but accurately conformed to the movement of the light point of light. In the 4th task as soon as the moving light was extinguished the tracking movements reverted to saccadic movements.—*H. Pick.*

6031. Law, Thomas, & Devalois, R. L. (U. Michigan) **Periorbital potentials recorded during small eye movements.** *Pap. Mich. Acad. Sci. Arts Lett.*, 1958, 43, 171-180.—"The present study was designed to refine our knowledge of the characteristics of the periorbitally recorded potential for eye movements of small extent." Ordinary cup disc-type EEG electrodes were attached to the skin about the eye with black electrical tape. Modern electrical equipment and techniques apparently permit detection of "eye movements as small as 0.5°. . . There is a linear relationship between eye movements of 0.5 to 15° and periorbitally recorded potential changes. . . Two-dimensional displays of eye movements are not only feasible but will permit simple unencumbered monitoring of ocular motion in a wider variety of situations where optical or photographic techniques are unsuitable."—*S. J. Lachman.*

6032. Piaget, Jean, & Bang, Vinh. **Comparaison des mouvements oculaires et des concentrations du regard chez l'enfant et chez l'adulte.** [Comparison of the eye movements and eye fixations of children and adults.] *Arch. Psychol., Geneva*, 1961, 38 (Whole No. 150), 167-200.—Differences in the eye movements and fixations of children and adults were obtained when the Ss perceived a variety of vertical and horizontal lines. Children's fixations were less adapted to the figure to be explored and to the required point of fixation.—*H. C. Triandis.*

6033. Piaget, Jean, & Bang, Vinh. **L'enregistrement des mouvements oculaires en jeu chez l'adulte dans la comparaison verticales, horizontales ou oblique et dans les perceptions de la figure**

en équerre. [Eye movements of adults in the comparison of vertical, horizontal and oblique lines and in the perception of the L-shaped (with equal size of lines) figure.] *Arch. Psychol., Geneva*, 1961, 38 (Whole No. 150), 89-141.—Analysis of eye movements from the point of view of exploration, distribution, and duration of fixation permits explanations of certain varieties of the horizontal-vertical illusion.—H. C. Triandis.

CHEMICAL SENSES

6034. Kalmus, H., & Trotter, W. R. (University Coll., London, England) Direct assessment of the effect of age on P. T. C. sensitivity. *Ann. hum. Genet.*, 1962, 26(2), 145-149.—Threshold changes of 110 individuals retested after a lapse of between 10 and 15 years are reported. There were 61 increases and 22 decreases in threshold. There was a high correlation between the test and retest values. The rate of decline in sensitivity does not seem to depend on age, thyroid condition, or taster status, but women, who usually are somewhat more sensitive than men, deteriorate more rapidly.—S. G. Vandenberg.

6035. Rosen, A. A., Peter, J. B., & Middleton, F. M. Odor thresholds of mixed organic chemicals. *J. Water Pollut. Control Federat.*, 1962, 34(1), 7-14.—Thresholds were measured by a modified method of limits (consistent series method). Judges sniff samples representing a log series of increasing concentrations of a substance in water. Water "blanks" are randomly interspersed. Threshold is that concentration above which all samples are correctly identified as "positive" or "negative." Thresholds, based on averages for 16-20 Ss, were determined for 1-butanol, p-cresol, pyridine, and for mixtures of these substances in varying proportions. The phenomenon of addition (the concentration of each component at the threshold of the mixture is below the threshold concentration of the component) was found with 6 of the 7 mixtures investigated. Synergism (the total olfactories represented in the concentrations of the components at the threshold of the mixture is less than one) was found in 2 of the 7 mixtures.—D. R. Peryam.

SOMESTHESIS

6036. Gibson, James J. Observations on active touch. *Psychol. Rev.*, 1962, 69(6), 477-490.—"A series of observations, both introspective and behavioral, confirms the distinction between touching and being touched. The former is a channel for a great variety of information about the environment, but whether it should be considered one or several senses is a matter of definition. The simple formula that it consists of passive touch plus kinesthesia is insufficient. The hypothesis of two components of stimulation, one exterospecific and one propriospecific, is more promising."—C. T. Morgan.

6037. Greene, Leon C., & Hardy, James D. (USN Air Development Cent., Johnsville, Pa.) Adaptation of thermal pain in the skin. *J. appl. Physiol.*, 1962, 17, 693-696.—Thresholds were determined on blackened skin of forehead and forearm over areas of 16 cm.² during exposure to thermal radiation for periods up to 50 min. Intensity of stimulation was controlled by S to maintain threshold pain. After the initial period of adjustment by S, radiation inten-

sity was generally maintained constant although skin temperature decreased slightly. Once pain had been established it did not disappear. It is inferred that thermal pain does not adapt for near-threshold stimulation.—D. R. Peryam.

6038. Harvey, O. J., & Campbell, Donald T. (U. Colorado) Judgments of weight as affected by adaptation range, adaptation duration, magnitude of unlabeled anchor, and judgmental language. *J. exp. Psychol.*, 1963, 65(1), 12-21.—Ss were first presented a series of 5 weights under varied conditions and then exposed additionally to extreme anchoring stimuli. $\frac{1}{2}$ of the 160 Ss made their judgments in ounces (Physical language) and the other half in 1-5 categories (Comparative language). The design under each language was a $2 \times 2 \times 2$ factorial: Narrow and Wide ranges of the standard weights designed to produce common geometric means or adaptations levels; Weaker and Stronger scales, represented by variation in number of pre-anchor trials; and Lighter and Heavier anchors. All 4 variables significantly affected judgments, indicating the importance of parameters generally not treated in adaptation level theory and suggesting that some of the anchoring effects typically obtained are affected by the judgmental language.—Journal abstract.

6039. Hawkes, Glenn R. (Lockheed-Georgia Co.) Predictability of multidimensional absolute identifications from information transmitted with unidimensional stimuli. *J. Psychol.*, 1962, 54(2), 309-316.—Experienced and naive Os made absolute identifications of electrical cutaneous stimuli varying in both intensity level and duration. Maximum information transmission was 2.97 bits, with combinations of 4 intensities and 4 durations, a little less than the simple summation of efficiency with the dimensions used singly. In sessions with combinations of an unequal number of intensity levels and durations, experienced Os transmitted significantly more information and both groups were more efficient when identifying combinations with more durations than intensity levels. Even though Os absolutely identify (unidimensional) intensities or durations with about equal efficiency, the present results indicate that the dimensions are not fully interchangeable.—Author abstract.

6040. Jarvik, Murray E., & Wolff, Berthold B. (New York U. Medical Cent.) Differences between deep pain responses to hypertonic and hypotonic saline solutions. *J. appl. Physiol.*, 1962, 17, 841-843.—Aqueous NaCl solutions (0.2 ml.) were injected into needles inserted in the gluteus medius muscles of 12 Ss. Duration and intensity of pain were related to NaCl concentration. Latency and duration were significantly greater with hypertonic solutions. Hypertonic saline tended to induce reports of a diffuse, dull ache, whereas hypotonic produced descriptions of sharp, pricking, well-localized pain.—D. R. Peryam.

6041. Lele, P. P. (Massachusetts General Hosp., Boston) An electrothermal stimulator for sensory tests. *J. Neurol. Neurosurg. Psychiat.*, 1962, 25(4), 329-331.—Description of apparatus delivering thermal stimuli of intensities above and below skin temperatures at the site of application. The instrument consists of a thermojunction of 2 different semiconductors, a low-voltage, high-current power supply and

a current reversing switch. When a current is passed through the semiconductors, one end of the junction becomes warmer, the other cooler than initially; reversal of the direction of the current reverses the thermal effects. Stimulus temperatures range from 10° C. to 45° C.; temperature changes can be effected rapidly; any given temperature may be maintained for any desirable time period.—*M. L. Simmel.*

6042. Margarida, R., Hardy, J. D., & Hammel, H. T. (U. Pennsylvania) **Measurement of the thermal pain threshold of the hard palate.** *J. appl. Physiol.*, 1962, 17, 338-342.—Individually fitted thin-walled aluminum thermodes through which water, alternately 37° C. or a higher test temperature, was rapidly circulated were used to determine the pain threshold in 4 Ss. Each was exposed to 288 stimuli in the range of 40°-49° C. in 6 experimental periods. 44.5° C. evoked the 1st reports of pain; 47.7° C. and above always evoked pain. A preliminary study is reported of the buccal temperature changes occurring during drinking hot beverages.—*D. R. Peryam.*

6043. Nelms, J. D., & Soper, D. J. G. (Royal Air Force Inst. Aviation Medicine, Farnborough, Hampshire, England) **Cold vasodilation and cold acclimatization in the hands of British fish filleters.** *J. appl. Physiol.*, 1962, 17, 444-448.—Ss were 11 filleters and 9 controls. The left hand was immersed in stirred ice and water mixtures. Vasodilation occurred significantly earlier in the filleters and their hand skin temperatures were higher both during initial vasoconstriction and after vasodilation. Some control Ss fainted and all were distressed, whereas the filleters were unaffected. The difference is interpreted as due to the filleters being accustomed to working with their hands in very cold water.—*D. R. Peryam*

6044. Ronco, Paul G. (Inst. Psychological Research) **An experimental quantification of kinesthetic sensation: Extent of arm movement.** *J. Psychol.*, 1963, 55(1), 227-238.—The present study was concerned with the quantification of one attribute of kinesthetic sensation, namely extent of movements. A ratio scale of sensory magnitude for the attribute was developed using blind positioning movements and the psychophysical techniques of magnitude estimation and fractionation procedures. The resulting scale, the "Kine" scale, demonstrates that the subjective magnitude of extent of arm movement grows as a power function of the stimulus magnitude.—*Author abstract.*

6045. Stevens, S. S., & Harris, Judith Rich. (Harvard U.) **The scaling of subjective roughness and smoothness.** *J. exp. Psychol.*, 1962, 64(5), 489-494.—"Preliminary experiments showed that Os can make consistent judgments of tactual roughness and smoothness. The stimuli were 12 grits of emery cloth. Magnitude estimations of roughness and smoothness produced straight lines when plotted (log-log) against grit number. The exponents of these power functions were determined in two experiments with magnitude estimation and one with cross-modality matching against loudness. All three experiments gave results that were power functions of grit number with exponents in the vicinity of -1.5 for roughness and +1.5 for smoothness. The cross-modality matches also confirmed the exponents determined by magnitudes estimation."—*J. Arbitt.*

6046. von Békésy, G. (Harvard U.) **Lateral inhibition of heat sensations on the skin.** *J. appl. Physiol.*, 1962, 17, 1003-1008.—"Many of the similarities that have been found between the organ of Corti, the eye, and the vibratory skin sensations are a consequence of lateral inhibition, and these similarities can be extended to heat sensations on the skin also. The chief differences lie in their numerical values. Analogues in heat sensations can be demonstrated for such phenomena as Mach bands and directional hearing, as well as the very pronounced sharpening effects of the spatial distribution of the sensation magnitude for traveling waves."—*D. R. Peryam.*

HEARING

6047. Bryden, M. P. (McGill U., Canada) **Order of report in dichotic listening.** *Canad. J. Psychol.*, 1962, 16(4), 291-299.—With different digits presented simultaneously to each ear, S responded following series of 3, 4, or 5 pairs, presented with ½-, 1-, or 2-sec. intervals. At the rapid rate most Ss reported the numbers heard by one ear followed by those of the other; while with slow presentation reports tended to follow the temporal order and there was evidence of rehearsal between pairs. The longer the series the more errors, but length had no consistent effect upon order of recall. With pairs presented through stereospeakers, the "ear order" of response became less frequent as the separation between speakers decreased.—*R. S. Davidson.*

6048. Bryden, M. P. (McGill U.) **Ear preference in auditory perception.** *J. exp. Psychol.*, 1963, 65(1), 103-105.—In a dichotic listening experiment, normal adult Ss identified numbers presented to the right ear more accurately than numbers presented to the left ear and preferred to report the material from the right ear first. To evaluate the effect of order of report a further experiment was performed (N = 32) in which Ss were instructed to report each channel first equally often. When 3 or 4 digits were presented to each ear, most Ss identified material from the right ear more accurately than material from the left ear. When 5 digits were presented to each ear, this difference was not observed. The findings suggest that the auditory system is better organized for the perception of verbal material presented to the right ear.—*Journal abstract.*

6049. Frey, Allan H. (Cornell U.) **Human auditory system response to modulated electromagnetic energy.** *J. appl. Physiol.*, 1962, 17, 689-692.—"Using extremely low average power densities of electromagnetic energy, the perception of sounds was induced in normal and deaf humans. The effect was induced several hundred feet from the antenna, the instant the transmitter was turned on, and is a function of the carrier frequency and modulation. Attempts were made to match the sounds induced by electromagnetic energy and acoustic energy. The closest match occurred when the acoustic amplifier was driven by the rf transmitter's modulator." Locations peripheral to the cochlea are ruled out as possible sites for the sensor.—*D. R. Peryam.*

6050. Mudd, Samuel Alexander. (Purdue U.) **The scaling and experimental investigation of four dimensions of pure tone and their use in an audio-visual monitoring problem.** *Dissert. Abstr.*, 1962, 22(10), 3735.—*Abstract.*

Measurement

6051. Studdert-Kennedy, Michael Geoffrey. (Columbia U.) The effect of waveform of the probability of hearing a short tone near threshold. *Dissert. Abstr.*, 1962, 22(10), 3752.—Abstract.

Speech Perception

PARAPSYCHOLOGY

6052. Girden, Edward. (Brooklyn Coll.) A review of psychokinesis (PK). *Psychol. Bull.*, 1962, 59(4), 353-388.—"Few of the PK reports fulfill the basic requirement of a psychological experiment. To have psychological justification, there must be a controlled comparison such as wish for versus wish against, or wish for versus no wishing, or Believers versus Disbelievers. . . Evidence of PK as a psychological phenomenon is therefore totally lacking. And this deficiency will persist until the effect is produced in the presence of a specified psychological variable, and the effect does not appear in its absence."—W. J. Meyer.

ENVIRONMENTAL EFFECTS

6053. Baranovskii, V. V., Emel'ianov, M. D., & Kuznetsov, A. G. (Moscow, USSR) O vzaimodeistvii analizatorov v usloviakh poleta na samoletakh i kosmicheskikh korabliakh. [Interaction between the analyzers during flights on planes and spaceships.] *Zh. vyssh. nervn. Deiatel.*, 1962, 12(6), 1001-1010.—Relations between the visual, vestibular, and motor analyzers were studied in 1 S under laboratory conditions of flight. The apparatus consisted of a swinging chair, a revolving chair with unstable support, and a cylinder with black and white stripes revolving around S. Recordings were made of the following: motor reactions, biopotentials of the skeletal muscles, pulse, respiration, blood pressure, and EEG. 2 experimental conditions were used: in one, S was sitting on a fixed chair, in the other he was placed on a chair with unstable support. When S was in a fixed position without any visual control of his body, the static muscular tensions inhibited the vestibular reflexes. In a tilting position, the muscular contractions became unstable and the vestibular reflexes more pronounced. As far as the visual analyzer is concerned, light as such does not affect the vestibular responses but the object and its position in space.—A. Cuk.

6054. Batten, Don Elton. (Washington State U.) The effects of sensory deprivation on auditory and visual sensitivity. *Dissert. Abstr.*, 1962, 22(11), 4091.—Abstract.

6055. Budiak, N. I. (Moscow, USSR) Posledeistvie dvigatel'nykh reaktsov kak pokazatel' individual'nykh osobennostei i funktsional'nogo sostoianiia vysshego nervnoi deiatel'nosti cheloveka. [The after-effect of motor reactions as indicator of individual characteristics and functional condition of the human higher nervous activity.] *Zh. vyssh. nervn. Deiatel.*, 1962, 12(6), 1029-1033.—Ss were 104 pilot students (age 17-20) who were instructed to respond with a RT key to sound stimuli following each other at regular intervals of 2, 4, and 10 sec. 1/2 of Ss were previously submitted to 15 min. of a

stressful experiment. It was found that RT was a function of stress and interval.—A. Cuk.

6056. Guedry, Fred E., Jr., & Graybiel, Ashton. (USN School Aviation Medicine, Pensacola, Fla.) Compensatory nystagmus conditioned during adaptation to living in a rotating room. *J. appl. Physiol.*, 1962, 17, 398-404.—Controlled tests on 7 men before and during a 64-hour period of rotation at 5.4 rev/min demonstrated that disorientation and nystagmus attributable to Coriolis acceleration effects diminished markedly. Compensatory nystagmus induced by head or whole-body movements was recorded more than one hour after rotation had ceased. Factors of possible significance in conditioning this effect are discussed, and contributions of compensatory and arousal factors to vestibular suppression are considered in relation to transfer of habituation.—D. R. Peryam.

6057. Marukhanian, E. V., Isakov, P. K., Asiamolov, B. F., Pavlov, G. I., & Usachev, V. V. (Moscow, USSR) Elektrofiziolgicheskoe issledovanie deiatel'nosti kozhnogo i dvigatel'nogo analizatorov v usloviakh deistviia uskorenniia. [Effect of acceleration on the activity of cutaneous and motor analyzers.] *Zh. vyssh. nervn. Deiatel.*, 1962, 12(6), 1021-1028.—5 Ss (age 23-35) were asked to estimate weights of equal looking jars while their EMG and GSR were recorded. The experiment was carried out under normal conditions and under conditions of acceleration (up to 7 g). When the weight was ascertained with the help of a slight movement of the hand and forearm, Ss underestimated the standards. With an increase in the extent of the movements, the weights were overestimated. Under conditions of acceleration (up to 3-4 g) the voltage of the biopotentials was growing in proportion to the increase of the heaviness of the arm while their frequency declined.—A. Cuk.

6058. Miller, Keith L., & Irving, Laurence. (Arctic Health Research Cent., Anchorage, Alaska) Local reactions to air cooling in an Eskimo population. *J. appl. Physiol.*, 1962, 17, 449-455.—Bare hand and facial temperatures of Eskimo men, women, and children were compared with those of white men during cooling in air at -3° and -7° C. Eskimo men and women had significantly higher minimal and terminal finger temperatures and less fluctuation than white men. Being accustomed to cold slowed cooling for white men. Eskimo children maintained finger temperature as well as white men not accustomed to cold. Hand discomfort was minor for adult Eskimos, but marked for most whites. Facial cooling was similar for adult groups, but cheek temperatures fell more rapidly for Eskimo children.—D. R. Peryam.

SLEEP & FATIGUE

6059. Collins, J. B., & Pruett, B. (Building Research Station, Garston, Hertfordshire, England) Perception time and visual fatigue. *Ergonomics*, 1962, 5(4), 533-538.—8 Ss (male students) viewed Landolt rings at near and far distances. Test periods were 2 hours. "Results . . . suggest that the time required to perceive accurately, objects at two different distances is worth considering as an indicator of (visual) fatigue."—B. T. Jensen.

6060. de Leeuwe, J. Relaxation et activité optimale. [Relaxation and optimum activity.] *Acta*

psychol., Amsterdam, 1962, 20(2), 128-138.—Several conceptions of "relaxation" are cited: a situation characterized by a considerably diminished activity of some peripheral organs plus a similarly diminished activity of the highest parts of the nervous system, or an advanced remission of muscular tension with undiminished normal activity of the higher central nerves. The question arises whether in combating labor pains without drugs the higher nervous activity should be maintained at normal levels.—G. Rubin-Rabson.

6061. Wilkinson, Robert T. (Applied Psychology Research Unit, Cambridge, England) **Muscle tension during mental work under sleep deprivation.** *J. exp. Psychol.*, 1962, 64(6), 565-571.—"Twelve Ss performed a 20-min. test of addition, once after normal sleep and once under 32-56 hr. sleep deprivation. Records of muscle tension (EMG) were taken from the inactive arm. The Ss who maintained performance best under the stress showed the greatest rise in EMG over normal levels. Knowledge of results disturbed this relationship. An independent measure of EMG taken under normal conditions predicted those Ss whose performance was impaired. Sleep deprivation may cause inefficiency even in Ss who maintain performance if their raised EMG reflects greater effort or energy expenditure; this may be the cost of maintaining normal levels of arousal and performance in face of the depressing influence of sleep deprivation per se."—J. Arbit.

MOTIVATION & EMOTION

6062. Grossart, Friedrich. **Gefühl und Strebung.** [Emotion and motivation.] Munich, Germany: Ernst Reinhardt, 1961. 196 p.—This entirely introspectional system of emotions is based on treatises which appeared in 1930 and 1931 in *Archiv für die gesamte Psychologie* (see 5: 87, 2632; 6: 111). Some later nonexperimental literature has been included. The most prominent European phenomenological and philosophical systems are discussed, and there is considerable emphasis on the differentiation of emotional states accompanying motivations.—J. C. Brengelmann.

6063. Rosensohn, William L. (Rutgers U.) **A logical method for making a classification of emotions, using Wilhelm Wundt's theory of emotion formation.** *J. Psychol.*, 1963, 55(1), 175-182.—An attempt is made to classify emotions according to a logical scheme provided, in part, by Wundt's analysis and theory of emotions. Thus, following Wundt, an emotion is considered first as a psychic compound, consisting of simple feelings in combination to form a single affective process. 3 pairs of simple feelings, originally isolated by Wundt, and appropriately symbolized by this writer, provide the basis for an abstract classificatory scheme, whereby an emotion may be represented by a formula or be assigned a position within a serial order or continuum of emotions, also formularized. The remainder of the paper is devoted to a systematic attempt to interpret such theoretic schemas.—*Author abstract.*

6064. Schachter, Stanley, & Singer, Jerome. **Cognitive, social, and physiological determinants of emotional state.** *Psychol. Rev.*, 1962, 69(5), 379-399.—"It is suggested that emotional states may be considered a function of a state of physiological

arousal and of a cognition appropriate to this state of arousal. From this follows these propositions: (a) Given a state of physiological arousal for which an individual has no immediate explanation, he will label this state and describe his feelings in terms of the cognitions available to him. . . . (b) Given a state of physiological arousal for which an individual has a completely appropriate explanation, no evaluative needs will arise and the individual is unlikely to label his feelings in terms of the alternative cognitions available. (c) Given the same cognitive circumstances, the individual will react emotionally or describe his feelings as emotions only to the extent that he experiences a state of physiological arousal. An experiment is described which, together with the results of other studies, supports these propositions."—C. T. Morgan.

PSYCHOMOTOR TASKS

6065. Borg, Gunnar, & Dahlström, Hans. **A pilot study of perceived exertion and physical working capacity.** *Acta Soc. Med. Upsaliensis*, 1962, 67(1-2), 21-27.—"This paper is a study of how the perception of exertion during a physical work test and the physical working-capacity correlates with an independent criterion. The test was conducted on a bicycle ergometer and the working-capacity was determined from pulse-rates and from the perceived exertion according to a rating scale. The validity of the two measures of the working-capacity was about the same. This study is only a pilot study but supports the idea that by using a simple rating scale for a physical work test the validity of the test may be increased."—C. T. Morgan.

6066. Břicháček, V. (Charles U., Prague, Czechoslovakia) **Vztah mezi směrem a rychlostí pohybu při kontinuální činnosti.** [Relation between direction and speed of motion.] *Ceskoslov. Psychol.*, 1962, 6(1), 36-46.—It was experimentally ascertained that the reactions in straight directions were quicker than reactions in oblique lines. The quickest reaction was from right to left. Reactions from up to down were quicker than those from down to up; also reactions to S were quicker than from S. When the signal board was in an oblique position, the speed of the reaction was slower than when it was in a horizontal or vertical position. No differences were found between the work of the right and left hand. (Russian & English summaries)—V. Břicháček.

6067. Bureš, Z. (Charles U., Prague, Czechoslovakia) **Individuální rozdíly v jednoduché laboratorní činnosti.** [Individual differences in simple laboratory activity.] *Ceskoslov. Psychol.*, 1962, 6(1), 47-63.—An attempt was made by means of a new special apparatus to make use of the psychological analysis of laboratory activity, consisting of long series (70-2000) of simple repetitive tasks, in the investigation of individual differences. After a survey of previous research, special attention being paid to work done in Czechoslovakia, a set of parameters describing the activity was selected. They are independent of each other and have nearly perfect normality of distribution, significantly differentiate the Ss, and demonstrate the relative stability under various experimental situations. (Russian & English summaries)—V. Břicháček.

6068. Čáp, J., & Lanc, O. (Charles U., Prague, Czechoslovakia) Přístroj pro výzkum pohybového dynamického stereotypu u člověka. [Apparatus designed for research of human dynamic motion stereotype.] *Ceskoslov Psychol.*, 1962, 6(1), 95-102.—Description of an instrument to produce periodic series of 20 intervals. Interval length can be adjusted independently and any combinations of 10 stimuli can be used. The course of S's motor movement on the keyboard is registered by oscillograph. (Russian & English summaries)—V. Bricháček.

6069. Crawford, A. (Road Research Lab., Harmondsworth, England) The perception of light signals: The effect of the number of irrelevant lights. *Ergonomics*, 5(3), 1962, 417-429.—3 Ss had 200 trials in identifying a signal under each combination of conditions of steady or flashing signal or background lights. A background of flashing lights increased response time more than a background of steady lights.—B. T. Jensen.

6070. Dinnerstein, A. J., & Lowenthal, M. (New York Medical Coll., N. Y.) Behavioral consequence of painful electric shock. *J. appl. Physiol.*, 1962, 17, 333-337.—Choice reaction time and hand steadiness were studied under conditions in which correct performance produced painful electric shock. Deterioration of task performance was found. It was greater when shock was applied to the active than to the passive hand. Tremor increased with shock intensity, and aspirin decreased the difference between shock and nonshock trials.—D. R. Peryam.

6071. Finzi, Hilda. (New York U.) Interchangeability of perceptual and motor activity in the release of organismic tension. *Dissert. Abstr.*, 1962, 22(11), 4078-4079.—Abstract.

6072. Howell, William C., & Kreidler, David L. (Ohio State U.) Information processing under contradictory instructional sets. *J. exp. Psychol.*, 1963, 65(1), 49-46.—Key pressing in response to spatially coded visual signals was studied as a function of 4 sets of instructions: (a) speed-accuracy, (b) speed, (c) accuracy, and (d) transmission rate (H_z/sec). Contradictory (speed-accuracy) and non-contradictory (H_z/sec) instructions resulted in comparable acquisition and performance functions on all 3 measures taken: speed, accuracy, H_z/sec . Behavior under conflicting instructions corresponded more closely to that for accuracy than to that for speed; S appeared to select a high accuracy criterion and to adjust speed to the maximum level permitted by it. Speed instructions caused S to lower his accuracy criterion appreciably, but with little compensation in increased speed.—Journal abstract.

6073. Johnson, Brooke Ronald. (U. Georgia) Physiological variables and performance on a counting task. *Dissert. Abstr.*, 1962, 22(8), 2883-2884.—Abstract.

6074. Khlebutina, T. A. (Ukrainian Psychoneurological Research Inst., Kharkov, USSR) Podvizhnost' osnovnykh nervnykh protessov v signal'nykh sistemakh pri razlichnoi slozhnosti funktsional'noi nagruzki. [Mobility of basic nervous processes in the signal systems under functional loads of various complexity.] *Zh. vyssh. nervn. Delatel.*, 1962, 12(4), 587-592.—Ss (age 17-55) had to respond with motor reactions to stimuli of the

1st signal system (pictures of geometrical figures and objects) and to stimuli of the 2nd system (typed words). Indicator of mobility was "the adequate frequency of stimuli" (such frequency which allowed for only 2 mistakes out of 30 presentations). 3 experimental conditions were used in which the response was varied (generalizing response to the 2nd system stimuli, generalization to 1st system stimuli, no generalization). A lower mobility was observed in most of the Ss during the stimulation of the 2nd signal system.—A. Cuk.

6075. Kiker, Vernon Lee, Jr. (Ohio State U.) An investigation of the influence of visual training on timing in certain athletic skills. *Dissert. Abstr.*, 1962, 22(7), 2478.—Abstract.

6076. Kováč, D. (Slovenskej Akad. Vied, Bratislava, Czechoslovakia) Závislosť medzi pohotovosťou, silou a trvaním v jednoduchej motorickej reakcii. [The dependence between readiness, force, and duration in simple motor reaction.] *Ceskoslov Psychol.*, 1962, 6(1), 166-177.—The greater the force the S applied to the reaction key, the more readiness was shown in their reactions. When the force required for pressing increased, the duration of reaction also increased. When readiness decreased, the duration decreased slightly. (Russian & English summaries)—V. Bricháček.

6077. Lavery, J. J. (Defence Research Medical Lab., Toronto, Canada) Retention of simple motor skills as a function of type of knowledge of results. *Canad. J. Psychol.*, 1962, 16(4), 300-311.—Acquisition and retention of skill was observed for 3 tasks, in each of which a blindfolded S impelled a ball up an inclined slope by different means. Knowledge of results (KR) was given 4 sec. after a response, at the end of 20 trials, or both. Either direction of error or direction and extent were reported to S. Immediate KR favored acquisition, but the KR conditions had no consistent effects upon retention in the 2 experiments.—R. S. Davidson.

6078. Poulton, E. C. (Applied Psychology Research Unit, Cambridge, England) On simple methods of scoring tracking error. *Psychol. Bull.*, 1962, 59(4), 320-328.—In the 1-dimensional tracking task, a measure of the mean constant error and the standard deviation of the error provide a means of determining individual response strategy. These measures may be averaged over all points on the input, or may be averaged for only one point (at the reversals in direction or at the points of inflection on the input). Data illustrating the various measures are presented.—W. J. Meyer.

6079. Rains, Jack Dean. (U. Arizona) Signal luminance and position effects in human reaction time. *Dissert. Abstr.*, 1962, 22(7), 2481.—Abstract.

6080. Suddon, Florence H., & Lavery, J. J. (Defence Research Medical Lab., Toronto, Canada) The effect of amount of training on retention of a simple motor skill with 0- and 5-trial delays of knowledge of results. *Canad. J. Psychol.*, 1962, 16(4), 312-317.—S pushed a lever to obtain a target pressure, with or without knowledge of results (KR); and with either 0-trial or 5-trial delay of KR. Ss with no-KR trials interposed did better on retention trials than Ss given the same total number of trials with KR. With both 0-trial and 5-trial delay, "The

amount retained is a function of the amount of training."—R. S. Davidson.

ATTENTION & SET

6081. Adams, Jack A., & Boulter, Lawrence R. (U. Illinois) **An evaluation of the activationist hypothesis of human vigilance.** *J. exp. Psychol.*, 1962, 64(5), 495-504.—2 experiments were performed to identify stimulus determinants of vigilance decrement in a complex visual monitoring task. Experiment I manipulated response-produced stimulation arising from the stimulation induced by head and eye movements and immediate memory. These variables had no effect on vigilance decrement. Experiment II introduced variety in head and eye movements by training the pattern of visual observing responses and then changing the pattern on a given trial. No effects on vigilance decrement were found. Problems in operationally defining the activationist hypothesis were discussed.—J. Arbit.

6082. Frankmann, Judith P., & Adams, Jack. (U. Illinois) **Theories of vigilance.** *Psychol. Bull.*, 1962, 59(4), 257-272.—The inhibition hypothesis of vigilance, derived from the classical conditioning model, has too many weaknesses for an adequate theory. The "attention" hypothesis is too loosely stated to provide an acceptable model of vigilance behavior. Similarly the "expectancy" hypothesis lacks precision, but it has served to stimulate a number of experiments. A physiological model, labeled the activationist hypothesis, has so far only been useful in after-the-fact explanation. This hypothesis does offer some potentially important clues, but there is a need to coordinate the physiological components with the molar concepts.—W. J. Meyer.

LEARNING

6083. Baird, Edity Munro. (Emory U.) **Learning expression of attitude under verbal conditioning and under concept formation procedures.** *Dissert. Abstr.*, 1962, 22(11), 4089-4090.—Abstract.

6084. Karlin, Lawrence, & Mortimer, Rudolf G. (New York U.) **Effects of visual and verbal cues on learning a motor skill.** *J. exp. Psychol.*, 1962, 64(6), 608-614.—"The effects of visual, verbal, and combined verbal-visual cues on the learning and retention of a crank-turning task were investigated. The task was to turn the crank at 99 rpm. The Ss were 45 right-handed males, 15 Ss in each condition. It was found that: (a) Overall superiority in retention tests of task performance measured by time within tolerance was due mainly to reduction to constant errors. (b) The verbal cue was inferior in learning but superior in retention tests when performance was measured by time within tolerance and magnitude of constant error. (c) The verbal cue was inferior to the visual and combined verbal-visual cues during both learning and retention trials when variable error was measured."—J. Arbit.

6085. Karlin, Lawrence, & Mortimer, Rudolf G. (New York U.) **Effect of verbal, visual, and auditory augmenting cues on learning a complex motor skill.** *J. exp. Psychol.*, 1963, 65(1), 75-79.—In comparing the effects of various additional cues on performance of a compensatory tracking task, a verbal cue group was significantly superior in final training

and transfer trials to a control group. Both visual and auditory cues were superior to the control but individually none of these differences was significant. Comparison of these with earlier results suggested that augmenting cues were most effective in transfer when they functioned to reward desirable patterns of behavior and develop standards of performance rather than to guide immediate action.—Journal abstract.

6086. Miller, Theresa M. (U. Pittsburgh) **Intelligence and laboratory learning: Two dimensions of laboratory tasks.** *Dissert. Abstr.*, 1962, 22(11), 4098.—Abstract.

6087. Whitman, James R., & Garner, W. R. (VA Hosp., Perry Point, Md.) **Free recall learning of visual figures as a function of form of internal structure.** *J. exp. Psychol.*, 1962, 64(6), 558-564.—"This experiment tested two hypotheses relating free recall learning to the form of the internal structure: (a) the ease of free recall learning depends not on the characteristics of the individual stimuli but on the characteristics of the entire subset to be learned; (b) when a subset of stimuli is characterized by simple contingencies between pairs of variables generating the set, free recall learning will be easier than when the subset is characterized by interactions involving three or more variables. Three different forms of internal structure in subsets of visual figures were compared. The results showed clear differences in the predicted direction and both hypotheses were substantiated."—J. Arbit.

Conditioning

6088. Arginteanu, Jules. (State U. Iowa) **Verbal conditioning, awareness and their relation as a function of measures of social desirability and of resistance to verbal conditioning.** *Dissert. Abstr.*, 1962, 22(8), 2873.—Abstract.

6089. Beck, Sally Bell. (U. Illinois) **Eyelid conditioning as a function of CS intensity, UCS intensity, and MAS score.** *Dissert. Abstr.*, 1962, 22(10), 3744.—Abstract.

6090. Bryan, James Homer. (Pennsylvania State U.) **The effects of stimulus variability upon the conditioning of the galvanic skin response.** *Dissert. Abstr.*, 1962, 22(11), 4091.—Abstract.

6091. Desroches, Harry Francis. (U. Tennessee) **Resistance to weakening influences as a function of the similarity between acquisition and weakening phases.** *Dissert. Abstr.*, 1962, 22(11), 4092-4093.—Abstract.

6092. Ebel, Harvey C., & Prokasy, William F. (Pennsylvania State U.) **Classical eyelid conditioning as a function of sustained and shifted interstimulus intervals.** *J. exp. Psychol.*, 1963, 65(1), 52-58.—39 Ss were given 1200 classical eyelid conditioning trials over 12 sessions of 100 trials each. The manipulated independent variable was interstimulus interval, the specific values employed being 200, 500, and 800 msec. Depending upon the treatment combination, some Ss received only 1 interstimulus interval throughout training, while others were shifted back and forth between 2 interstimulus interval values. The major results were (a) response frequency continued to increase beyond 400 training trials, though differences as a function of interstimulus interval were not statistically significant; (b) both mean and

SD of latency varied directly with interstimulus interval and changes in interstimulus interval; and (c) both mean and SD of latency decreased across training sessions. The data were interpreted in terms of an assumed reinforcement related to the temporal disparity between UCR and UCS onsets.—*Journal abstract.*

6093. Gormezano, I., Moore, John W., & Deaux, Edward. (Indiana U.) **Supplementary report: Yoked comparisons of classical and avoidance eyelid conditioning under three UCS intensities.** *J. exp. Psychol.*, 1962, 64(5), 551-552.—A previous study found that classical conditioning when experimentally equated in terms of partial reinforcement pattern and number of UCS occurrences by a yoking procedure, was inferior to avoidance conditioning. The present investigation was conducted to determine the effects of UCS intensity on such yoked comparisons of classical and avoidance conditioning. It was found that the classical procedure was inferior at each of the 3 UCS intensities to the avoidance method.—*J. Arbit.*

6094. Korn, Sam J., & Welch, Livingston. (New York Hosp.) **On the elimination of artifacts in GSR conditioning.** *J. Psychol.*, 1963, 55(1), 109-113.—Adaptation of GSR to a continuously presented visual stimulus (continuous stimulus method) was compared with results obtained in an earlier study in which Ss were continuously presented with one or another of 4 signal lights (continuous series method). Both studies involved 14 female Ss, duration of stimulation was approximately 25 minutes and no reinforcement was imposed. The number and magnitude of GSRs were greater in the continuous stimulus method than in the continuous series method. Only in the latter was adaptation quickly and reliably accomplished. Thus the advantages of this method and its implications for CR procedure are reaffirmed.—*Author abstract.*

6095. Leonard, Charles, & Winokur, George. (Washington U. School Medicine) **Conditioning versus sensitization in the galvanic skin response.** *J. comp. physiol. Psychol.*, 1963, 56(1), 169-170.—Whether or not the return of the response to an orienting stimulus (after it has undergone habituation) during GSR conditioning is a true conditioned response (CR) was tested by a differentiation method. 10 Ss were given 2 tones for 40 habituation trials. This was followed by a conditioning period in which one tone was paired with shock and the other was unpaired. Equal numbers of orienting responses (OR) reoccurred during the conditioning period with both paired and unpaired tones; but more conditioned anticipatory responses occurred with the paired than the unpaired tone ($p < .001$). The return of the OR is a sensitization response rather than a CR. The OR may be simply differentiated from the CR by its latency.—*Journal abstract.*

6069. Martin, Randall Blaine. (Syracuse U.) **Word frequency as a factor in the conditioning of verbal behavior.** *Dissert. Abstr.*, 1962, 22(10), 3734-3735.—*Abstract.*

6097. Moore, Dorothy Nell. (Louisiana State U.) **Dogmatism and anxiety in the conditioning of verbal behavior.** *Dissert. Abstr.*, 1962, 22(7), 2468.—*Abstract.*

6098. Nolan, Richard Edward. (U. Connecticut) **Human cardiac conditioning during intense experimental anxiety.** *Dissert. Abstr.*, 1962, 22(8), 2877-2878.—*Abstract.*

6099. Prokasy, William F., Fawcett, James T., & Hall, John F. (Pennsylvania State U.) **Recruitment, latency, magnitude, and amplitude of the GSR as a function of interstimulus interval.** *J. exp. Psychol.*, 1962, 64(5), 513-518.—"Five groups of Ss trained at CS-UCS intervals of 0, .5, 1, 3, or 5 sec. were employed in a study of the role of the interstimulus interval (ISI) in the conditioning of the GSR. All Ss received 20 tone-shock pairings followed by 10 tone alone (test) trials. Four attributes of the GSR were measured: amplitude, magnitude, latency, and recruitment. The principal findings were: (a) magnitude was greatest with an ISI of .5; (b) magnitude, but not amplitude, varied with ISI; (c) latency and recruitment both increased as a function of ISI; (d) latency increased across extinction trials; and (e) a second response was observed frequently in Ss exposed to ISIs of 3 and 5 sec."—*J. Arbit.*

6100. Southwell, Eugene Allen. (State U. Iowa) **Verbal conditioning as a function of experimenter and subject dominance.** *Dissert. Abstr.*, 1962, 22(8), 2879.—*Abstract.*

6101. Spence, Kenneth W., & Tandler, Blaine F. (State U. Iowa) **Differential eyelid conditioning under equated drive as a function of the reinforcing UCS.** *J. exp. Psychol.*, 1963, 65(1), 35-38.—The effects of varying the reinforcing properties of the paired UCS on differential conditioning under equated drive level (D) was studied. The high reinforcement (HR) group had the positive CS (500-cps tone) paired with a strong UCS (2.0 psi) at an optimal CS-UCS interval (500 msec.) while the negative CS (5000-cps tone) was paired with a weak UCS (.33 psi) at interval of 2550 msec. These conditions were reversed for low reinforcement group (LR). HR group performed significantly higher than LR group both for positive and negative CS. Differentiation of the discriminanda was greater for HR group. Since drive levels of 2 groups were equated the results may be interpreted as indicating greater amount of habit strength for both stimuli in case of HR.—*Journal abstract.*

Discrimination

6102. Standish, C. D., & Champion, R. A. (U. Sydney, Australia) **Spatial S-R contiguity in human discrimination learning.** *J. exp. Psychol.*, 1962, 64(5), 545-548.—"Two experiments on discrimination learning were conducted under conditions in which preliminary training was given with two pairs of stimuli in fixed spatial relations, followed by test learning involving the two pairs and their transposes. The aim was to test the effects of spatial S-R contiguity, for it was predicted that contiguity would cause positive transfer from training to test. The prediction was confirmed, and the result was interpreted in S-R terms with the hypothesis that contiguity, like between-pair similarity, promotes within-pair discriminations on the part of the learner, it being supposed that spatial contiguity has this effect through the more basic variable of temporal contiguity."—*J. Arbit.*

Verbal Learning

6103. Abou-Ghorra, Ibrahim Mansour. (U. Southern California) A study of affective sets: The effects of family and non-family verbal contexts on word-need stimuli in a word association experiment with reference to pleasant and emotional tones of associated verbal responses. *Dissert. Abstr.*, 1962, 22(9), 3262-3263.—*Abstract*.

6104. Asch, Solomon E., & Lindner, Marged. (Swarthmore Coll.) A note on "strength of association." *J. Psychol.*, 1963, 55(1), 199-209.—2 groups learned a paired associate task by the method of anticipation, with items differing in ease of recall. One group learned with the more difficult items, the other with the easier items in the 2nd position: The 2 groups differed markedly in learning performance. Subsequently $\frac{1}{2}$ of each group was tested in the forward direction, the other $\frac{1}{2}$ in the backward direction. Despite the difference in learning performance, the 2 groups were indistinguishable when the test of recall was identical. This finding, which confirms the principle of associative symmetry, demonstrates that an effect hitherto attributed to strength of association is a function of recall, or of item availability. It raises the further question whether associations once formed increase in strength with further practice. The symmetry of associations is incompatible with the conceptualization of an association as a stimulus-response connection.—*Author abstract*.

6105. Brown, A., Osterhout, C., & Voss, J. F. (Coll. Wooster, O.) The effect of one probabilistic verbal association upon the concomitant acquisition of a second association. *J. verbal Learn. verbal Behav.*, 1962, 1(1), 48-53.—"A modified paired-associate procedure was employed in which a stimulus word was presented on each trial with 1 or 2 response words. The probability ratio was varied for different groups. . . . It was found that A_1 response frequency for the .8 and .7 conditions increased as a function of the response probability of the association concomitantly presented. Alternation and run tabulations were performed which suggested that Ss were influenced by the sequential characteristics of the two associations."—A. E. Horowitz.

6106. Brown, S. C., & Battig, W. F. (U. Virginia) Partial serial-position constancy in non-serial paired-associate learning. *J. verbal Learn. verbal Behav.*, 1962, 1(1), 42-47.—"The role of serial-position cues in paired associate learning was investigated by holding serial position of pairs in the list partially constant while preventing actual serial learning. . . . significant facilitation resulted if pairs were held constant in serial position only after being responded to correctly for the first time. . . . little evidence was found for differences among serial positions in rate of paired-associate learning. . . . if 2 or 4 pairs were held constant in serial position on all trials, while the remaining pairs were varied, significantly more errors resulted than under the standard varied-order procedure."—A. E. Horowitz.

6107. Carroll, J. B., Kjeldergaard, P. M., & Carlton, A. S. (Harvard U.) Number of opposites versus number of primaries as a response measure in free-association tests. *J. verbal Learn. verbal Behav.*, 1962, 1(1), 22-30.—"An attempt was made to devise a classification scheme for the K-R [Kent-

Rosonoff] list, behaviorally, by instructing Ss to respond with an opposite to any stimulus word which seemed amenable to opposition. The resulting scoring system was then used in the analysis of published norms and of new association data gathered under the usual instructions. The following conclusions seem justified. (1) A large component of what is referred to as commonality of response to the K-R stimulus list is based upon the responses to a relatively small subset of stimuli which can be identified behaviorally and which are called opposite evoking stimuli (OES). (2) A score based upon the number of opposites given to the OES . . . are more reliable than the primary responses to the 72 non-opposite-evoking stimuli or the commonality score." There seem to be consistent patterns of individual differences across responses to OES and non-OES.—A. E. Horowitz.

6108. Caruth, Clifton J. (U. Southern California) Clinical implications of verbal learning without awareness: An experimental study. *Dissert. Abstr.*, 1962, 22(9), 3265.—*Abstract*.

6109. Crothers, E. J. (Indiana U.) Paired-associate learning with compound responses. *J. verbal Learn. verbal Behav.*, 1962, 1(1), 66-70.—"Sixty college students each received two six-item lists under each of three schedules of one or two practice trials and two tests. In each list, each of the six combinations of the color adjectives 'red,' 'green,' and 'blue' and the form nouns 'circle' and 'triangle' was randomly designated as a 'correct' response compound for one syllable. The main analysis consisted in computing the probability of a correct response component, conditional on an incorrect response on the other component of that compound. . . . The data support the hypothesis that the rate of conditioning of the noun component depends on whether the adjective component is conditioned."—A. E. Horowitz.

6110. Glanzer, M. (U. Maryland) Grammatical category: A rote learning and word association analysis. *J. verbal Learn. verbal Behav.*, 1962, 1(1), 31-41.—3 experiments were carried out, analyzing the difference between content words (nouns, adjectives, verbs, and adverbs) and function words (pronouns, prepositions, and conjunctions) in rote learning. In paired-associates (English word-nonsense syllable and nonsense syllable-English word orders), number of correct anticipations was greater for content words. The same words were given in a word association situation. Correlations between association latency, number of different words given by Ss, and correct anticipations in paired-associates provide no consistent basis for explanation of the difference in association value. When the words were put in minimal contexts (nonsense syllable-word-nonsense syllable), and these triplets were the responses in paired-associates, the function word triplets yielded more correct anticipations. "Analysis on the basis of the subjects customary speech unit" is offered as an alternative to explanation based on meaningfulness.—A. E. Horowitz.

6111. Harleston, Benard W. (Tufts U.) Task difficulty, anxiety level and ability level as factors affecting performance in a verbal learning situation. *J. Psychol.*, 1963, 55(1), 165-168.—The interactive effects of Taylor scale anxiety level, ability level, and difficulty level were investigated with a paired-associates learning task. While ability level

and task difficulty level emerged as statistically significant effects, anxiety level failed to appear as consistently significant. Further, the hypothesis that the effects of anxiety level on performance are a function of task difficulty level and ability level did not receive support. The implications of the sensitive role of ability level were discussed.—*Author Abstract.*

6112. Johnson, Ronald C. Reanalysis of "meaningfulness and verbal learning." *Psychol. Rev.*, 1962, 69(3), 233-238.—Underwood and Schulz, defining frequency as the frequency that trigrams appear contiguously in English words, found pronounceability to be significantly related to rate of learning, while frequency was not a major variable. This E defined frequency as the frequency that a trigram appeared as a discrete or relatively discrete sound unit in spoken English. Using the approach taken in this paper, frequency is most significantly related to rate of verbal learning while pronounceability is not a major variable. While it may be that other attributes of trigrams (such as m or a) which covary with the frequency that trigrams occur as sounds in the English language are more basic in influencing rate of verbal learning, one can say with certainty, that frequency, as defined herein, is an adequate predictor of rate of verbal learning.—*Journal abstract.*

6113. Kanungo, R. N., Lambert, W. E., & Mauer, S. M. (McGill U.) Semantic satiation and paired-associate learning. *J. exp. Psychol.*, 1962, 64(6), 600-607.—Immediately before paired-associate learning one group was satiated on the response members with a control group satiated on words which were not response members. Satiation of words caused a decrease in their connotative meaning as measured on semantic scales and that the former group was slower in learning than the latter group. A subsequent experiment, using a retroactive inhibition paradigm, studied the effect of satiation treatment of stimulus words on the recall of already learned paired associates. The results were discussed in terms of an associational interpretation of semantic satiation.—*J. Arbit.*

6114. Kincaid, W. D., Jr., Bousfield, W. A., & Whitmarsh, G. A. (U. Connecticut) The parasitic reinforcement of verbal associative responses. *J. exp. Psychol.*, 1962, 64(6), 572-579.—"Two experiments were designed to test the following hypotheses: (a) The paired-associate learning of a meaningful response word to a nonsense syllable stimulus has the consequence of establishing connections between the nonsense syllable and the members of a group of verbal associative responses to the learned response word. (b) The strength of the connections established between the nonsense syllable and the associates of the learned response word is an increasing function of the cultural habit strengths of the associates as responses to the learned response word. . . . The results strongly supported the first hypothesis, but failed to support the second hypothesis as no significant functional relationship was found to exist between the choices of associates in the testing situation and their cultural frequencies of occurrence as responses to the meaningful words."—*J. Arbit.*

6115. Laffal, J., & Feldman, S. (VA Hosp., West Haven, Conn.) The structure of single word and continuous word association. *J. verbal Learn. ver-*

bal Behav., 1962, 1(1), 54-61.—A previously developed system of categorization was applied to the continuous word associations of 20 Ss and to the discrete associations of the Minnesota Kent-Rosanoff norms. A response category profile was drawn up for each stimulus under the 2 conditions. Overlap coefficient matrices were factor analyzed. 5 factors were found to both methods, and 1 that appeared only under the continuous condition.—*A. E. Horowitz.*

6116. Lockhead, G. R. (Johns Hopkins U.) Methods of presenting paired associates. *J. verbal Learn. verbal Behav.*, 1962, 1(1), 62-65.—"Three different methods of ordering a list of nine pairs of nonsense syllables to be learned were compared both when Ss were and were not told that their responses were correct or incorrect. The results showed that the method of presentation . . . is unimportant but the effects due to the presentation of partial knowledge of results are equivocal."—*A. E. Horowitz.*

6117. Peterson, Lloyd R., Hillner, Kenneth, & Saltzman, Dorothy. (Indiana U.) Supplementary report: Time between pairings and short-term retention. *J. exp. Psychol.*, 1962, 64(5), 550-551.—An earlier study found forgetting within 8 sec. after a single paired-associate presentation when other presentations filled the interval. The present study investigated the effect of an 8-sec. interval similarly filled which is inserted between the 1st and 2nd presentations of an individual pair later tested for retention. The paradoxical finding was that when an interval during which marked forgetting can be shown to occur is introduced between pairings, there is improvement in retention at long intervals.—*J. Arbit.*

6118. Rotberg, Iris C., & Woolman, Myron. (Human Resources Research Office, George Washington U.) Verbal paired-associate learning as a function of grouping similar stimuli or responses. *J. exp. Psychol.*, 1963, 65(1), 47-51.—Verbal paired-associate learning was measured when similar or dissimilar stimuli were grouped, and when similar or dissimilar responses were grouped. The following measures were employed: number of correct responses; type of errors made, i.e., errors indicating confusion between similar items and those indicating confusion between dissimilar items. The results indicated that learning was better when groups of stimuli were composed of similar items rather than dissimilar ones. The findings were interpreted in terms of discrimination and coding of the similar items.—*Journal abstract.*

6119. Schönpflug, Wolfgang, & Schäfer, Manfred. (Frankfurt a.M., Mertonstr. 17, Germany) Retention und Aktivierung bei akustischer Zusatzreizung. [Learning and activation under acoustic stimulation.] *Z. exp. angew. Psychol.*, 1962, 9(3), 452-464.—While learning a list of nonsense syllables 66 Ss were exposed to a tone of 1000 cycles at 6 levels of intensity from 45 to 95 db. At the same time the level of activation was recorded by measuring electrodermal resistance. Retention proved to be a 3rd order function of tone intensity. Differences in retention correspond with differences in activation.—*W. J. Koppitz.*

6120. Schulz, Rudolph W., & Tucker, Irving F. (State U. Iowa) Supplementary report: Stimulus familiarization in paired-associate learning. *J. exp.*

Psychol., 1962, 64(5), 549-550.—A recent study reported a facilitation in paired-associate learning with stimulus familiarization. The present experiment attempts to ascertain whether this finding might be due to having S articulate the stimulus during the paired-associate anticipation interval. With articulation, performance was found to be a monotonic increasing function of number of familiarization trials; with no articulation, performance is inversely related to amount of familiarization.—*J. Arbit.*

6121. Unger, IU., Marinkesku, K., Sevastopol', N., & Michelesku, L. (Acad. Sciences, Bucharest, Rumania) Dinamicheskoe issledovanie slovesno-slovesnykh svyazei i vegetativnykh komponentov pri assotsiativnom eksperimente. [Dynamic investigation of verbal-verbal connections and vegetative components in an association experiment.] *Zh. vyssh. nervn. Deiatel.*, 1962, 12(4), 578-586.—14 healthy Ss reacted verbally to 5 verbal stimuli repeated from 8 to 10 times while their phonogram, GSR, and the respiration reaction were recorded. It was found that: (a) RT tends to decrease, (b) GSR and the respiration reaction tend also to decrease and often become extinct by the end of the experiment, and (c) temporary connections of the associative type are established in the experiment.—*A. Cuk.*

6122. Walker, Ronald Edward. (Northwestern U.) The interaction between failure, manifest anxiety, and task-irrelevant responses in paired-associate learning. *Dissert. Abstr.*, 1962, 22(8), 2890.—*Abstract.*

6123. Whitmarsh, Gerald Arthur. (U. Connecticut) A comparative study of two theories of verbal generalization. *Dissert. Abstr.*, 1962, 22(8), 2890-2891.—*Abstract.*

6124. Wollen, K. A. (State U. Iowa) One-trial versus incremental-paired associate learning. *J. verbal Learn. verbal Behav.*, 1962, 1(1), 14-21.—In 2 experiments, "Ss were given alternate learning and test trials on lists of word responses paired with consonant-syllable stimuli. The major findings were: (1) items learned late in training (difficult items) showed more shifts from correct on one trial to non-correct on the next than did those learned earlier (easy items); (2) the proportion of items never previously correct which became correct on each trial increased with training; (3) overlearning increased both immediate and delayed retention; (4) the mean number of correct responses gradually increased over a series of five successive recall trials in spite of the fact that no learning trials were given."—*A. E. Horowitz.*

6125. Wollen, Keith Alfred. (State U. Iowa) One trial versus incremental paired associate learning. *Dissert. Abstr.*, 1962, 22(8), 2891-2892.—*Abstract.*

Reinforcement (Including Probability Learning)

6126. Bennion, Robert Cannon. (Ohio State (U. Colorado Medical School) Supplementary re-individual differences as affecting perception of internal vs. external control of reinforcements. *Dissert. Abstr.*, 1962, 22(10), 3737-3738.—*Abstract.*

6127. Brackbill, Yvonne, & Bravos, Anthony. (U. Colorado Medical School) Supplementary report: The utility of correctly predicting infrequent

events. *J. exp. Psychol.*, 1962, 64(6), 648-649.—"In spite of wide variations within several experimental parameters, the same result has emerged as before. In order to maximize prediction to trial *n* from preceding trials on which the less or least frequent event occurred, it is necessary to consider S's previous prediction in addition to the previous actual occurrence. Also, the direction of the effect in the present results supports the original interpretation: that there is a relatively greater utility to S of correctly predicting the occurrence of the less (or least) frequent event. It would be interesting to see if the same phenomenon might occur generally in any type of learning situation in which S, finding E's 'game' tedious and uninteresting, can and does invent one of his own."—*J. Arbit.*

6128. Buchwald, A. M. (Indiana U.) Variations in the apparent effects of "right" and "wrong" on subsequent behavior. *J. verbal Learn. verbal Behav.*, 1962, 1(1), 71-78.—In Experiment I, the probability of the repetition of 1 or 4 response numbers was studied as a function of E saying "Right" or "Wrong," (randomly determined) after the response. There was a rise in probability of response repetition after "Right" but "Wrong" had no effect. "In Experiment II, Ss had two lists with four response alternatives, and two lists with two alternatives. . . . With four alternatives S repeated responses to the same stimuli more often when Right followed the responses than when Nothing did. With two alternatives there were fewer repetitions following Wrong than following Nothing. With four alternatives there was no effect of Wrong and with two alternatives, no effect of Right."—*A. E. Horowitz.*

6129. Katz, Leonard. (U. Massachusetts) Monetary incentive and range of payoffs as determiners of risk taking. *J. exp. Psychol.*, 1962, 64(5), 541-544.—"One group of 18 Ss gambled for chips only and another group of 18 Ss gambled for chips worth 5¢ each. Three ranges of unknown payoffs were used, one at each of three sessions. The known payoff, the acceptance of which was the alternative to gambling, remained constant. Neither incentive nor range had a significant effect upon the total number of risks taken. The Ss gambled significantly more when the alternative to gambling was a loss (-1) than when it was a gain (+1). Several interactions were significant, including Range \times Value and Range \times Value \times Incentive. These led to the conclusion that gambling is affected differentially on +1 and -1 trials by the range of chips to be gained or lost, and by the interaction of range and monetary incentive."—*J. Arbit.*

6130. Larre, Earl Edward. (Tulane U.) Interpolated activity before and after knowledge of results. *Dissert. Abstr.*, 1962, 22(10), 3746-3747.—*Abstract.*

6131. McHose, James Hayden. (State U. Iowa) The effect of continued nonreinforcement on the frustration effect. *Dissert. Abstr.*, 1962, 22(8), 2885.—*Abstract.*

6132. Nies, Richard C. (U. California, Los Angeles) Effects of probable outcome information on two-choice learning. *J. exp. Psychol.*, 1962, 64(5), 430-433.—"The experiment investigated the effect of different levels of probability information on response frequencies in a random, two-choice situation with

unequal event probabilities. This information was demonstrated to have differential effects during the early trials. In addition, it was found that Ss reached a significantly higher response level when the outcome of a trial appeared to depend upon the chance drawing of a marble from a box than when the marble box was absent. These findings were interpreted in terms of the perception of 'randomness.'—*J. Arbit.*

6133. Shaffer, Juliet Popper. (U. Kansas) Discrimination and mediated generalization in probability learning. *J. exp. Psychol.*, 1962, 64(6), 593-599.—Ss were given 2 successive probabilistic discrimination problems. Their performance on a 3rd problem was predicted on the assumption that it would be affected in a specified way by mediating responses, resulting from the training on the 2 initial problems. The precise quantitative predictions were only partially confirmed although there was a significant effect of the pretraining on the final problem. This discrepancy between observed and predicted results was compared with similar discrepancies between observed data on discrimination problems and predictions based on a statistical model for discrimination learning.—*J. Arbit.*

6134. Zipf, Sheila G. (U. California, Berkeley) Effects of probability of reward and speed requirement on human performance. *J. exp. Psychol.*, 1963, 65(1), 106-107.—An experiment was conducted to investigate 6 levels of probability of reward for success (PrR) and 6 levels of required increase in speed (Req) as they effect change in speed of performance of a simple motor task. The index of performance used is a ratio: improvement in speed relative to possible improvement. Both variables have a significant effect on performance. The PrR has a linear effect while Req has both linear and quadratic components. It is suggested that the effect of Req is similar to the increasing then decreasing amount of performance found with increasing activation.—*Journal abstract.*

Learning Theory

6135. Altea, E. Contributo allo studio dell'apprendimento di una discriminazione in rapporto al livello di ansia. [Contribution to the study of discrimination learning in relationship to anxiety level.] *Arch. Psicol. Neurol. Psichiat.*, 1962, 23(6), 567-580.—Discrimination learning is interpreted in terms of Krechevsky's noncontinuity theory.—*L. L'Abate.*

6136. Anderson, Norman H. On the quantification of Miller's conflict theory. *Psychol. Rev.*, 1962, 69(5), 400-414.—This paper presents a mathematical model based on N. E. Miller's conflict theory (see 35: 81) and requires minimal assumptions. An experimental situation is described and exact predictions are derived for it. A technique for obtaining a theoretically correct measurement scale for the dependent variable is also given. Finally, possible relations of the model to Hull-Spence theory are discussed. (20 ref.)—*Journal Abstract.*

6137. Berger, Seymour M. Conditioning through vicarious instigation. *Psychol. Rev.*, 1962, 69(5), 450-466.—"The purpose of this paper is to provide a conceptual framework within which to study em-

pathy, envy, and sadism as determinants of interpersonal behavior. . . . It offers a conceptualization of conditioning through vicarious instigation and provides some experimental support for the phenomenon." (21 ref.)—*C. T. Morgan.*

6138. Binford, John Richard. (Indiana U.) A simple Markov model for a two-person interactive learning situation and a comparison of the Markov model with a linear model of Burke. *Dissert. Abstr.*, 1962, 22(9), 3271-3272.—*Abstract.*

6139. Butters, Nelson, & Wiener, Morton. (Clark U.) The continuity-discontinuity controversy in paired-associate learning. *J. Psychol.*, 1962, 54(2), 473-483.—In 2 studies, one controlling for item difficulty using a matched S design, and one using a more sensitive measure of learning (latency) both demonstrated continuity of learning in a paired-associated paradigm in contrast to the recent findings of Rock et al. and Estes et al.—*Author abstract.*

6140. Carpenter, C. R. (Pennsylvania State U.) Boundaries of learning theories and mediators of learning. *Audiovis. commun. Rev.*, 1962, 10(6), 295-306.—A presentation of "selected generalizations in current learning theories. In addition, an attempt is made to relate learning theories to communication theories, especially as these involve the understanding and use of newer media in education."—*R. E. Schuts.*

6141. Champion, R. A. Stimulus-intensity effects in response evocation. *Psychol. Rev.*, 1962, 69(5), 428-448.—"Following an outline of the Hullian and Perkins-Logan theories of stimulus-intensity effects, and a distinction between the role of these effects in learning and performance, four experiments were described which tested the relative merits of the two theories in situations limited to effects on performance. It was concluded from the series of experiments as a whole, that the Perkins-Logan theory is to be preferred to Hull's treatment of stimulus-intensity effects." (23 ref.)—*C. T. Morgan.*

6142. Jones, Joan E. Contiguity and reinforcement in relation to CS-UCS intervals in classical aversive conditioning. *Psychol. Rev.*, 1962, 69(3), 176-185.—The function relating the interval between the onset of the CS and the UCS to response strength in classical aversive conditioning is interpreted in terms of the joint action of 2 principles. Early in training the efficacy of conditioning depends mainly on the contiguity of CS and UCR but later mainly on the proximity of the CR to reinforcement (UCS). In both cases a bidirectional gradient is assumed to operate such that the greater the discontiguity of the events the less effective the learning. It is predicted that variations in experimental procedure, such as the latency of the response being conditioned, which affect the function relating the CS-UCS interval to response strength and that the shape of the learning curves depends on the CS-UCS interval used in training.—*Journal abstract.*

6143. Kelleher, Roger T., & Gollub, Lewis R. (Harvard Medical School) A review of positive conditioned reinforcement. *J. exp. Anal. Behav.*, 1962, 5(4, Suppl.), 543-597.—A critical analysis of the experimental data relevant to the concept of conditioned reinforcement. The conditioned reinforcing effectiveness of a stimulus is directly related to the

frequency of primary reinforcement occurring in its presence, but independent of the response rate or response pattern occurring in its presence. A stimulus can be established as a conditioned reinforcer by pairing it with an already established conditioned reinforcer rather than a primary reinforcer. The concepts of conditioned reinforcement and chained schedule can be used to integrate the data obtained with diverse techniques. (101 ref.)—*J. Arbit.*

6144. Logan, Frank A. **Conditional-outcome choice behavior in rats.** *Psychol. Rev.*, 1962, 69 (5), 467-476.—A conditional-outcome choice is one in which the reward for at least one of the alternatives depends upon the organism's performance. A series of studies was reported in which rats were given a choice between 2 alleys, in one of which they had to run slowly, choose the correct brightness, or turn in the correct direction in order to obtain reward. It was concluded that rats are indifferent between such an alternative and one in which the same frequency of reward was given regardless of performance. This finding was interpreted as indicating that distinguishable behaviors can be aggregated into a single response class even though they are differently reinforced.—*Journal abstract.*

6145. Long, David Henningsen. (U. Denver) **A study of Mowrer's two-factor theory and the autonomic nervous system.** *Dissert. Abstr.*, 1962, 22(11), 4097.—*Abstract.*

6146. Mandler, George. **From association to structure.** *Psychol. Rev.*, 1962, 69(5), 415-426.—Given the distinction that associationist and cognitive theories make in respect to the definition of response, we have examined the proposition that one source of cognitive behavior may be found in associative antecedents. The argument for a transition from associations to cognitions was buttressed by reference to the development of learning sets and developed out of the notion of response integration and the emergence of analogic structures. Empirical evidence on the effect of overlearning on transfer of training was examined in detail to differentiate findings that seem to be amenable to associative explanations from those that seem to call for structural, cognitive explanations. (40 ref.)—*Journal abstract.*

6147. Pubols, Benjamin H. **An application of Levine's model for hypothesis behavior to serial reversal learning.** *Psychol. Rev.*, 1962, 69(3), 241-245.—"Levine has developed a general model for hypothesis behavior, applicable to both learning-set and serial reversal experiments. . . . [An] experiment . . . yielded data in terms of which this model might be tested. . . . The general model appears to have as much utility when applied to serial reversal learning as when applied to learning-set formation."—*C. T. Morgan.*

6148. Rosenbaum, Milton E., Chalmers, Douglas K., & Horne, William C. (State U. Iowa) **Effects of success and failure and the competence of the model on the acquisition and reversal of matching behavior.** *J. Psychol.*, 1962, 54(2), 251-258.—2 variables were treated in a factorial design in which acquisition and reversal of an imitative response were examined. The results of the acquisition period, as in previous experiments, showed that prior failure in contrast to success led to facilitation of the

imitative response and that the more competent the model, the greater is the tendency to match his responses. No interaction of these variables was indicated. Similarly, the results for a succeeding series of trials in which the probability of reinforcement was reversed indicated facilitation of nonimitation for Ss who experienced prior failure and who were presented with a high competence model. Alternate interpretations of the results were offered.—*Author abstract.*

6149. Simon, Herbert A. (Carnegie Inst. Technology) **A note on mathematical models for learning.** *Psychometrika*, 1962, 27(4), 417-418.—It is shown that a rational learning curve developed by Estes for paired associate learning is a special case of a more general function. The latter is the product of 2 functions and assumes that the discovery and fixation aspects of learning are independent. The indications are that the form of one of the functions has not been tested sharply by Estes in the paired associate learning setting.—*Journal abstract.*

6150. Underwood, B. J., & Keppel, G. (Northwestern U.) **One-trial learning?** *J. verbal Learn. verbal Behav.*, 1962, 1(1), 1-13.—The experiment of Estes, Hopkins, & Crothers (see 35: 4453) is criticized as not crucially supporting the assumption of 1-trial learning in Estes' theory. (a) There are critical procedural artifacts. (b) ". . . even if the artifacts could be ruled out, we believe that the data presented could be interpreted handily by certain extant incremental theories." 2 experiments were run on paired associates, the results of which the authors feel would be extremely difficult to handle with any theory assuming 1-trial learning.—*A. E. Horowitz.*

6151. Zapan, G. (Bucharest, Romania) **Použitie princípu dynamického stereotypu v procese učenia.** [The use of the principle of the dynamic stereotype in the process of learning.] *Psychol. Stud., Bratislava*, 1961, 3, 97-114.—The author reviews his experience in this area. Indispensable conditions for creating a dynamic stereotype in man are: temporal orders of stimuli, transfer, back afferentation, optimum excitability in brain cortex, optimum intensity of stimuli, differentiation, generalization, and the interacting of 2 signal systems. Principles of the dynamic stereotype are also applied to the methods of teaching foreign languages and mathematics. (Russian & English summaries)—*V. Břicháček.*

RETENTION & FORGETTING

6152. Hellyer, S. (Defence Research Medical Lab., Toronto, Canada) **Supplementary report: Frequency of stimulus presentation and short-term decrement in recall.** *J. exp. Psychol.*, 1962, 64(6), 650.—A previous study showed a progressive improvement in recall scores with an increase in number of repetitions by S before the delay of recall began. The present study used visually presented material to reduce the likelihood of inadvertent interference by E of S's response pattern. The earlier conclusions are confirmed in that there is better recall with an increase in the number of stimulus repetitions and with shorter periods of delay before recall.—*J. Arbit.*

6153. Hodges, Walter Lee. (George Peabody Coll. Teachers) **The effect of task discriminability,**

response similarity, and learning ability on retroaction. *Dissert. Abstr.*, 1962, 22(8), 2883.—*Abstract*.

6154. Hommel, Leonard Seymour. (Stanford U.) Transfer in the prediction of fixed patterns of two-choice events as a function of the contrast between patterns. *Dissert. Abstr.*, 1962, 22(10), 3746.—*Abstract*.

6155. McCullers, John Charles. (U. Texas) An analysis of some factors underlying intralist associative transfer in paired-associate learning. *Dissert. Abstr.*, 1962, 22(10), 3747.—*Abstract*.

6156. Murdock, Bennet B., Jr. (U. Vermont) The serial position effect of free recall. *J. exp. Psychol.*, 1962, 64(5), 482-488.—The serial position curve is characterized by a steep, possibly exponential, primacy effect extending over the 1st 3 or 4 words in the list, an S-shaped recency effect extending over the last 8 words in the list, and a horizontal asymptote spanning the primacy and recency effect. The shape of the curve may well result from proactive and retroactive inhibition effects occurring within the list itself.—*J. Arbit*.

6157. Ross, John. (Princeton U.) Human memory: A partial model and its implications for retroactive phenomena. *Dissert. Abstr.*, 1962, 22(7), 2459-2460.—*Abstract*.

THINKING

6158. Deese, James. On the structure of associative meaning. *Psychol. Rev.*, 1962, 69(3), 161-175.—It is suggested that "associations derive in whole or part from the structures or categories of the human mind. . . . [The] implicit distributions of responses that define associative meaning may exhibit patterns of overlap because they are derived from simple structures. . . . [The] distribution of associates to any word provides the associative meaning of that word and the techniques necessary to apply this assumption to data."—*C. T. Morgan*.

6159. Lewicki, Andrzej. *Procesy poznawcze i orientacja w otoczeniu*. [The cognitive process and orientation in the environment.] Warsaw, Poland: Państwowe Wydawnictwo Naukowe, 1960. 243 p.—Using the experiments of Adrian and Pavlov (particularly the latter), the author develops a theory of cognition which embraces the conscious as well as the unconscious with a supporting physiological base. Cognition is more than the "mirroring of the environment in the central nervous system" or the "understanding of the environment"; it is an "orientation in the environment." This concept includes the notions of value, generalization, and self-actualization. The theory is designed to be applicable to man as well as animals but with considerations of variance in physiological make-up and man's ability to use non-biological values and abstractions.—*H. Kaczkowski*.

6160. Martinez, Carlos M. (Buenos Aires, Argentina) Conocimiento y proceso primario. [Cognition and the primary process.] *Acta psiquiat. psicol. Argent.*, 1962, 8(1), 60-64.—The hypothesis is set forth that there is a type of thinking which is related to a certain type of knowledge of a determined reality (the fantasy reality). This thinking process, besides logical coherence, has another coherence, which is a coherence of fantasy and which employs

a determined instrument, the fantasy body.—*W. W. Meissner*.

6161. Mednick, Sarnoff. The associative basis of the creative process. *Psychol. Rev.*, 1962, 69(3), 220-232.—An associative theory of creative thinking has been outlined. Differences between high creatives and low creatives have been predicted along specified dimensions. Predictions have been made regarding the effect on the creative process of some experimentally manipulable variables. The associative definition of the creative process has taken the operational form of a test. Some preliminary research with this test is described.—*Journal abstract*.

6162. Voronin, L. G. (Moscow U., USSR) K voprosu o mekhanizmaxh proizvol'nykh dvizhenii. [Mechanisms of voluntary movements.] *Zh. vyssh. nervn. Deiatel.*, 1962, 12(4), 569-577.—Voluntary movements are those which originate in the cerebral cortex (Pavlov). They are subject to all the mechanisms of the conditioned reflex. Review of and evaluation of Soviet literature bearing on this point.—*A. Cuk*.

Problem Solving

6163. Davis, James H., & Restle, Frank. (Michigan State U.) The analysis of problems and prediction of group problem solving. *J. abnorm. soc. Psychol.*, 1963, 66(2), 103-116.—The time to solve a multiple-stage problem is the sum of the times consumed by separate stages. If each stage is a random all-or-none process, then time to complete a stage is an exponentially distributed random variable, and time to complete the problem will have a gamma distribution (under suitable simplifying assumptions). From this theory, the number of stages in a problem can be estimated and goodness-of-fit tested. Results on 3 word puzzles, administered to 178 individual college students, agreed with theory, and the estimates of number of stages in each problem agreed well with independent judgments of number of stages. The same problems also were administered to groups of 4 Ss. The data suggest that all Ss progress at their usual pace toward solution, except that an S who made a mistake in interpreting the problem consumes and wastes his share of the group's time. This result agrees with the additional observation that the apparent social structure of the groups, as determined from analysis of sociometric choices, was egalitarian. (18 ref.)—*Journal abstract*.

6164. Jordan, Nehemiah. The resolution of cognitive conflict under uncertainty: A critique. *Hum. Relat.*, 1962, 15(3), 277-279.—Zajonc and Burnstein (see 36: 2GG13Z) are accused of an experimental tautology from which only trivial results can be drawn.—*W. W. Meissner*.

6165. Knight, Kenneth E. (Carnegie Inst. Technology) Effect of effort on behavioral rigidity in a Luchins water jar task. *J. abnorm. soc. Psychol.*, 1963, 66(2), 190-192.—The experiment consisted of a paper-and-pencil problem solving task to test if the effort required to obtain 1 solution influences the S's ability to solve similar problems. The conclusions are that the greater the effort required to develop a solution procedure: (a) the slower the change to another more appropriate solution procedure, (b) the greater the propensity of change during extinction to an alternative decision

procedure that is similar to the learned procedure, and (c) the less the propensity to recognize and use a trivial decision procedure that is also feasible. The results were significant at the .05 level. The Ss were 46 male undergraduate students.—*Journal abstract.*

6166. Maier, N. R. F., & Solem, A. R. (U. Michigan) Improving solutions by turning choice situations into problems. *Personnel Psychol.*, 1962, 15(2), 151-157.—College students and supervisors were formed into 146 groups of 4 to reach a decision on a problem involving conflict. The leaders in the 96 experimental groups were given an instruction designed to make them view the situation more as a problem to solve than as a decision to make. The results suggest procedures, which prevent immediate acceptance of an obvious solution and which cause the group to examine decision making situations as problems to solve, tend to increase the number of alternatives that come up for consideration, thereby increasing the quality of group problem solving.—*A. S. Thompson.*

6167. Marron, Joseph Edward. (Fordham U.) The effect of manifest anxiety and induced anxiety on human performance on feedback and non-feedback complex problems. *Dissert. Abstr.*, 1962, 22(11), 4097-4098.—*Abstract.*

6168. Restle, Frand, & Davis, James H. Success and speed of problem solving by individuals and groups. *Psychol. Rev.*, 1962, 69(6), 520-536.—"A waiting-time model was developed to give a distribution of times to solution, for word puzzles. The distribution depends upon the number of stages involved in solving the problem. Experimental results showed that the theoretical distribution (gamma distribution) gives a good fit to the data, and the estimated number of stages agrees well with intuition and judgments. A theory of 'pooling of contributions' was developed to describe the superiority of groups over individuals in solving word puzzles. Experimental results suggested that subjects who have misunderstood the problem and will arrive at wrong answers, nevertheless consume their share of group time. With this addition, the pooling of contributions theory accurately predicts group problem solving data."—*C. T. Morgan.*

6169. Simon, Herbert A., & Simon, Peter A. (Carnegie Inst. Technology) Trial and error search in solving difficult problems: Evidence from the game of chess. *Behav. Sci.*, 1962, 7(4), 425-429.—The conclusion is reached that the discovery of "mating combinations by expert chess players requires neither prodigious memory, ultra-rapid processing capacities, nor flashes of insight. Combinations as difficult as any that have been recorded in chess history will be discovered by the selective heuristics we have outlined, with amounts of search and with processing speeds that do not appear extravagant in relation to the measures we have of simpler kinds of human information-processing performance. The evidence suggests strongly that expert chess players discover combinations because their programs incorporate powerful selective heuristics and not because they think faster or memorize better than other people."—*J. Arbit.*

6170. Sperow, Byron Paul. (U. Florida) A study of complex problem solving under indi-

vidual and group conditions. *Dissert. Abstr.*, 1962, 22(10), 3736-3737.—*Abstract.*

6171. Zajonc, Robert B., & Burnstein, Eugene. (U. Michigan) Reply to Dr. Jordan's comments. *Hum. Relat.*, 1962, 15(3), 280.—Jordan (see 37: 6164) misinterprets the use of uncertainty, making it equivalent to "lack of confidence." In their experiment, uncertainty had to do with the number of objective alternatives presented to Ss in messages. Messages with high uncertainty were found to be more frequently distorted, but the Ss' confidence was not investigated.—*W. W. Meissner.*

Concepts

6172. Bodansky, Margery. (Clark U.) A study of the representation of abstract concepts through the use of line patterns. *Dissert. Abstr.*, 1962, 22(7), 2456-2457.—*Abstract.*

6173. Bourne, Lyle E., Jr., & Bunderson, C. Victor. (U. Utah) Effects of delay of informative feedback and length of postfeedback interval on concept identification. *J. exp. Psychol.*, 1963, 65(1), 1-5.—The purpose of this experiment was to determine the independent effects of delay of informative feedback (IF), length of post-IF interval, and task complexity on concept identification. The 216 Ss served individually in a factorial design which combined 3 delays, 3 post-IF intervals, and 2 levels of task complexity. All Ss were given standard oral instructions about the task and served to a criterion performance of 32 consecutively correct stimulus identifications. Results indicated that task difficulty increased with complexity, performance improved linearly with increases in post-IF interval, increase in the post-IF interval was more facilitative in tasks of greater complexity, and delay of IF was an ineffective variable. The data require detailed modifications of a mathematical theory of concept identification.—*Journal abstract.*

6174. Golas, E. (U. Palatskii, Olmutz, Czechoslovakia) Izuchenie uslovii obobscheniya. [A study of the conditions of generalization.] *Vop. Psikh.*, 1962, No. 3, 95-105.—The errors made in a concept formation type task are used to study the process of generalization (which is defined as the discovery of the general in specific instances.) The concept task consisted of learning to respond to pictures of objects in an upright position and not to respond otherwise. Analysis of the results indicate that some Ss make many errors of omission and others make many errors of commission. These are considered to be 2 types of generalization errors. Examining the percentages of these 2 types of errors is claimed to be a very much more informative type of analysis than is usually carried out.—*H. Pick.*

6175. Harrow, Martin, & Buchwald, Alexander M. (Indiana U.) Reversal and nonreversal shifts in concept formation using consistent and inconsistent responses. *J. exp. Psychol.*, 1962, 64(5), 476-481.—Reversal shifts may be learned more quickly than nonreversal shifts because they involve responding to a dimension of the stimuli that was previously used. A 4-category card-sorting task in which both number and position variables could be used was employed. Some concepts required consistent responses and others inconsistent responses.

All reversal tasks were learned in fewer trials than comparable nonreversal tasks. Concepts requiring consistent responses were learned in fewer trials than concepts requiring inconsistent responses.—*J. Arbit.*

6176. Isaacs, I. David, & Duncan, Carl P. (Northwestern U.) **Reversal and nonreversal shifts within and between dimensions in concept formation.** *J. exp. Psychol.*, 1962, 64(6), 580-585.—In addition to a comparison of reversal during transfer with nonreversal shift to the same dimension, the experiment also evaluated the effect of nonreversal to a different dimension. The performance of all groups could be accounted for, in the main, by 2 factors: nonspecific transfer and a specific tendency to continue to respond in transfer to the dimension of stimuli reinforced during training.—*J. Arbit.*

6177. Johannsen, Walter J. (VA Cent., Wood, Wisc.) **Concept identification under misinformation and subsequent informative feedback conditions.** *J. exp. Psychol.*, 1962, 64(6), 631-635.—Using 4 degrees of misinformative feedback (MF), and 1, 3, or 6 irrelevant dimensions (DI), Ss were given MF/IF trials and then shifted to 100% informative feedback (IF). Under MF/IF conditions significant differences occurred as a function of MF, DI, and MF \times DI, with increasing MF and DI leading to poorer performance. Subsequent 100% IF learning was significantly affected by DI; including controls produced a MF \times DI interaction. Partialing out the effect of prior learning on the 100% IF data produced a significant MF effect. Some probability matching was found.—*J. Arbit.*

6178. Lachman, Roy, & Sanders, Joyce A. (Hollins Coll.) **Concept shifts and verbal behavior.** *J. exp. Psychol.*, 1963, 65(1), 22-29.—2 experiments on concept shifts were conducted to test a theoretical model of thinking. The model assumed that mediating responses follow the laws of overt verbal responses. Ratings of verbal labels for pairs of stimulus values confirmed an a priori shift classification of similar, neutral, and opposite. Transfer effects for the 3 types of shifts were compared on successive concept shifts. A quadratic transfer function was obtained for the similar, neutral, and opposite shift dimension. Inflection of the curve occurred at the neutral position. A negative displacement of the transfer function occurred after the 1st shift. The results were judged as more consistent with Bugelski and Cadwallader's reformulation of Osgood's transfer laws than with Osgood's original formulations.—*Journal abstract.*

6179. Mednick, Sarnoff A., & Halpern, Sharon. (U. Michigan) **Ease of concept attainment as a function of associative rank.** *J. exp. Psychol.*, 1962, 64(6), 628-630.—"Thirty Ss were presented with lists of 12 nouns and instructed to discover into what three groups the nouns could be divided and what adjective could describe each group. The lists consisted of concepts of equal levels of dominance; the position of the concept responses in the associative hierarchy was manipulated. The concepts having higher rank position in the associative hierarchy were attained more quickly and with fewer errors."—*J. Arbit.*

6180. Neisser, Ulric, & Weene, Paul. (Brandeis U.) **Hierarchies in concept attainment.** *J. exp. Psychol.*, 1962, 64(6), 640-645.—"Twenty Ss were employed in a study of the relative difficulty of at-

taining 10 different types of concepts. All types involved only the presence or absence of two properties, but some were hierarchically more complex than others. For example, 'Both A and B' is more complex than 'A' but less complex than 'Both A and B or neither.' The results indicate that the difficulty of a concept varies directly with its complexity. This order of difficulty does not appear when a computer program is used to attain the concept by simple elimination. It seems to reflect a hierarchical organization of conceptual processes in the Ss themselves."—*J. Arbit.*

6181. Peterson, Margaret Jean. (Indiana U.) **Some effects of the percentage of relevant cues and presentation methods on concept identification.** *J. exp. Psychol.*, 1962, 64(6), 623-627.—The number of responses prior to criterion was inversely related both to the percentage of relevant cues and to the temporal proximity of the instances associated with a given response. The lesser efficiency of heterogeneous presentation was not a function of the greater temporal intervals occurring between instances of the same concept, but rather of interference effects from other concepts. An interaction was found between the percentage of relevant cues and the method of presentation. Few Ss reported the presence of more than 1 relevant dimension for the problems with 2 or 3 completely redundant relevant dimensions.—*J. Arbit.*

6182. Wason, P. C. (University Coll., London, England) **Reply to Wetherick.** *Quart. J. exp. Psychol.*, 1962, 14(4), 250.—(See 37: 6184.)

6183. Wells, Herbert. (Yale U.) **Effects of transfer and problem structure in disjunctive concept formation.** *J. exp. Psychol.*, 1963, 65(1), 63-69.—3 studies dealt with the attainment of disjunctive concepts. The positive instances of disjunctive concepts contain either Values A or B, while conjunctive concepts are those whose positive instances contain both A and B. The former are typically more difficult to attain. The 1st experiment showed that training on disjunctive concept problems increases the proportion of Ss who offer a disjunctive concept when a conjunctive concept is also available. The 2nd experiment compared inclusive (A or B or both) and exclusive (A or B but not both) disjunctive problems. The latter were found to be more difficult in terms of the time to solution.—*Journal abstract.*

6184. Wetherick, N. E. (Medical Research Council Unit, Research Occupational Aspects of Ageing, Liverpool, England) **Eliminative and enumerative behaviour in a conceptual task.** *Quart. J. exp. Psychol.*, 1962, 14(4), 246-249.—P. C. Wason's paper "On the Failure to Eliminate Hypotheses in a Conceptual Task" (see 35: 1737) is criticized on the grounds that the task set is in important respects untypical of problem-solving situations in general. It is suggested that few or no Ss are "eliminators" in Wason's sense and that although many are "enumerators" in his sense, enumerative behavior is a function of the situation. An experiment is reported in which it appears that modification to the situation can sharply reduce the incidence of enumerative behavior and increase the S's chance of success at an early stage. The frequency with which hypotheses are directly eliminated is shown to be very low in all groups.—*Journal abstract.*

6185. Wilson, John Carroll. (U. Cincinnati) The effect of abstraction and generalization orientation on the creation of concepts. *Dissert. Abstr.*, 1962, 22(8), 2891.—*Abstract*.

DECISION & INFORMATION THEORY

6186. Anker, James M., Townsend, John C., & O'Connor, James P. (VA Hosp., Perry Point, Md.) A multivariate analysis of decision making and related measures. *J. Psychol.*, 1963, 55(1), 211-221.—49 measures of decision making, intelligence, personality traits, and vocational interests and values were administered to 202 college students. These measures were intercorrelated, factor analyzed, and orthogonally rotated. 9 factors were identified, 5 of which contained decision making measures; decision time, intelligence, sequential effects of successes and failures, decision confidence, and odds preference. The 4 other factors were identified as adjustment-maladjustment, technical vs. interpersonal orientation, cultural vs. managerial orientation, and scientific creativeness vs. practical orientation.—*Author abstract*.

6187. Carlsmith, J. Merrill, & Aronson, Elliot. (Harvard U.) Some hedonic consequences of the confirmation and disconfirmation of expectancies. *J. abnorm. soc. Psychol.*, 1963, 66(2), 151-156.—In a test of the hypothesis that events which disconfirm expectancies will be perceived as unpleasant, Ss tasted a random sequence of sweet and bitter solutions. On the basis of certain signals given by the E, they developed expectancies or hypotheses about whether the next solution would be bitter or sweet. On trials when the Ss' expectancies were disconfirmed due to incorrect signals, the solutions were judged to taste more unpleasant. Thus, a bitter solution was rated more bitter; a sweet solution was rated less sweet. The results were interpreted in terms of Festinger's theory of cognitive dissonance.—*Journal abstract*.

6188. Flynn, John Charles. (Ohio State U.) Cooperative and non-cooperative game strategies as a function of perceived differential ability in the triad. *Dissert. abstr.*, 1962, 22(7), 2463-2464.—*Abstract*.

6189. Ghosh, A. S. (Patna, India) Number favouritism and spread of effect. *Indian J. Psychol.*, 1962, 37(2), 67-73.—A sample of college students was asked to write at random the numbers from 1 to 10 for a 2-minute period. A strong tendency towards number-favouritism was confirmed, with repetition of responses negatively correlated with response variability. An inverse position gradient of response variability was also found, indirectly supporting the existence of a so-called gradient of effect. They study supported Jenkins' "guessing sequence" and "probability bias" hypotheses, "and emphasized the importance of 'number favouritism' as a partial determinant of the 'spread of effect' phenomenon."—*J. T. Cowles*.

6190. LaBerge, David. (U. Minnesota) A recruitment theory of simple behavior. *Psychometrika*, 1962, 27(4), 375-396.—A statistical theory of choice is developed using a sequential sampling assumption. Response latency distributions for certain simple reaction-time situations are derived and

tested. Both response probability and response latency measures are developed for a 2-alternative judgment situation and the relationship between the 2 measures explored. The sampling parameter is proposed as a means of representing incentive conditions in choice situations and ROC curves are obtained by appropriate manipulations of this parameter. A solution to the overlap problem in simple discrimination-learning situations is also derived. (29 ref.)—*Journal abstract*.

6191. Lanzetta, John T., & Kanareff, Vera T. (U. Delaware) Information cost, amount of payoff, and level of aspiration as determinants of information seeking in decision making. *Behav. Sci.*, 1962, 7(4), 459-473.—S has to make a decision about a hypothetical patient in a mental hospital. A certain amount of information is given, but should he desire more he must "pay" for it. The average number of information-seeking queries do not appear to be consistent with an expected value maximization assumption or an instrumental conditioning model. Low information seekers spend more time in processing initial data and in making a decision—hardly consistent with the usual conception of a "confident" decision maker. (20 ref.)—*J. Arbit.*

6192. Peterson, Cameron Rondel. (U. Colorado) Uncertainty and behavior. *Dissert. Abstr.*, 1962, 22(10), 3749.—*Abstract*.

6193. Pruitt, Dean G. Pattern and level of risk in gambling decisions. *Psychol. Rev.*, 1962, 69(3), 187-201.—This paper introduces a new deterministic model for analyzing decision making in gambling, the pattern and level of risk (PLR) model. At the beginning of the paper, the experimental evidence for four traditional models is examined and the inadequacies of these models shown. Then the PLR model is described, predictions are drawn from the model, and evidence is presented to support the predictions. Finally some implications of the PLR model are shown.—*C. T. Morgan*.

6194. Rawson, Harve Else. (Ohio State U.) The relationships of moral value diminutions and unethical behavior under varying conditions of risk. *Dissert. Abstr.*, 1962, 22(10), 3750.—*Abstract*.

6195. Sawyer, Jack, & MacRae, Duncan, Jr. (U. Chicago) Game theory and cumulative voting in Illinois: 1902-1954. *Amer. pol. Sci. Rev.*, 1962, 56, 936-946.—A symmetrical 3×3 zero-sum game theory model is devised for the behavior of the 2 district committees—1 Democratic, 1 Republican—each of which decides upon a strategy of entering 1, 2, or 3 candidates in the general election for representative to the Illinois General Assembly, in which 3 members are elected from each district. Decisions are made under uncertainty as to (a) what proportion of the vote the party will receive and (b) how many candidates the other party will enter; the model incorporates these uncertainties through probability and minimax principles, respectively, and prescribes strategies (varying with the expected vote) which optimize payoff—number elected. In 69% of the 1377 biennial elections from 1902 to 1954, each party employed its prescribed strategy; an additional 17% of the elections resulted in the prescribed outcome, even though at least one party departed from its prescribed strategy.—*Author abstract*.

6196. Schoeffler, Max S. (Bell Telephone Lab., Murray Hill, N. J.) **Prediction of some stochastic events: A regret equalization model.** *J. exp. Psychol.*, 1962, 64(6), 615-622.—"Subjects were instructed to ask for some number of 'make-believe dollars' MBDs or simply to guess a number which E would subsequently present. The payoff to S depended on the relation of S's bid to E's number. Three conditions were used to determine the payoff. In two of these, Ss were encouraged to bid high, but excessively high bids were punished. In the other condition, over- and underbids were treated symmetrically. A model was constructed which predicts the asymptotic bid level under these conditions to be at a point where the expected regret due to overbidding is equal to the expected regret due to underbidding."—*J. Arbit.*

6197. Strizenec, M. (Slovenskej Akad. Vied, Bratislava, Czechoslovakia) **K otázke využitia teórie informácie v psychológii.** [On the question of using the theory of information in psychology.] *Psychol. Stud.*, Bratislava, 1961, 3, 9-38.—A review of the fundamental knowledge of information theory and its application to psychology. Although there are dangers of excessive analogising and of taking a mechanistic approach to psychological problems in practical application, especially in the sphere of engineering psychology, many significant contributions are made. (Russian & English summaries)—*V. Břicháček.*

6198. Strizenec, M. (Slovenskej Akad. Vied, Bratislava, Czechoslovakia) **Výkon v diskriminativnej úlohe z hľadiska teórie informácie.** [The performance in a discriminative task from the viewpoint of the theory of information.] *Psychol. Stud.*, Bratislava, 1961, 3, 39-56.—With an increasing amount of information given in disjunctive reaction, the reaction time is prolonged and the number of errors increased by the amount of transmitted information is greater. More difficult discriminations were followed by a decreasing amount of transmitted information. The proportion of disjunctive reaction time to the logarithm of the number of alternative stimuli was verified. Practical consequences of the man-machine problem are quoted. (Russian & English summaries)—*V. Břicháček.*

6199. Thomas, P. E., & Kawahata, Aikoh. (Kirksville Coll. Osteopathy & Surgery) **Neural factors underlying variations in electrical resistance of apparently nonsweating skin.** *J. appl. Physiol.*, 1962, 17, 999-1002.—Comparisons were made in adjacent high- and low-resistance areas of sweat gland responses produced by intradermal injections of drugs that directly stimulate sweat glands. When procaine was used prior to such injection, the response was essentially the same in both areas. At moderate temperatures sweat glands evidently receive sudomotor impulses at a rate that does not produce visible sweating but does increase electrolyte conductance.—*D. R. Peryam.*

6200. van Naerssen, Robert F. **A scale for the measurement of subjective probability.** *Acta psychol.*, Amsterdam, 1962, 20(2), 159-166.—A scale for measuring subjective probability is described. The S chooses between a number of ordered pairs at the same time, thereby avoiding the time-consuming method of paired comparisons. The scale can be used

for modifying S motivation, in which case, amount of information is approximately a linear function of the score.—*G. Rubin-Rabson.*

PHYSIOLOGICAL PSYCHOLOGY

6201. Narikashvili, S. P. (Inst. Physiology, Tbilisi, USSR) **K voprosu o mekhanizmax uslovnoreflektornoi deiatel'nosti.** [Mechanisms of conditioning.] *Zh. vyssh. nervn. Deiatel.*, 1962, 12(4), 613-622.—On the basis of the latest data on the physiology of nonspecific structures of the brain, some assumptions are made on the possible origin of different phenomena of the conditioned activity. The significance of the reinforcement is regarded as an effect of excitation not only of certain specific projection systems but of the ascending reticular activating system as well. External inhibition is accomplished by means of activation of the reticular formation that blocks afferent impulses even at the subcortical level. Habituation is considered to be the result of a gradual weakening and cessation of the ascending activating influence of the reticular formation on the cortex. Temporary connections are presumed to be formed in the neocortex. The origin of the generalization and differentiation of conditioned reflexes is explained.—*A. Cuk.*

6202. Narikashvili, S. P. (Tbilisi, USSR) **Nekotorye obshchie voprosy fiziologii analizatorov v svete novykh dannykh o strukture i funktsii golovnogo mozga.** [Some general problems of the physiology of analyzers in light of new data on the structure and function of the brain.] *Vop. Psikh.*, 1962, No. 3, 56-72.—This is first a consideration of the role of the reticular formation in brain function attempting to show how this affects the function of the analyzer. Topics considered include the ascending activating function of the reticular formation and its role in the origin and conduction of affect impulses (including sensitization). Second, the role of the cortex in regulating the activity of the analyzer is discussed. This takes the form of habituation and is accomplished both through the reticular formation and via other sub cortical mechanisms. (108 item bibliogr.)—*H. Pick.*

NEUROANATOMY & PHYSIOLOGY

6203. Chusid, Joseph G., & Kopeloff, Lenore M. (New York State Psychiatric Inst.) **Epileptogenic effects of pure metals implanted in motor cortex of monkeys.** *J. appl. Physiol.*, 1962, 17, 697-700.—Induction of clinical epilepsy by precentral motor cortical implantation of pellets of 26 pure metals was evaluated in 40 monkeys. Nickel and antimony were most effective. Variable mild effects were noted with bismuth, cadmium, zirconium, tin, titanium, iron, molybdenum, mercury, vanadium, tungsten, and tantalum. Other metals were ineffective.—*D. R. Peryam.*

6204. Florey, Ernst. (Ed.) **(U. Washington) Nervous inhibition.** New York: Pergamon, 1961. xv, 475 p. \$15.00.—31 papers presented at the International Symposium on Nervous Inhibition held at Friday Harbor in 1960. Topics include the historical development of theories of inhibition, inhibition on the mammalian spinal chord, inhibition of receptor cells, the nervous inhibition of endocrine systems, and the concept of presynaptic inhibition.—*J. B. Thompson.*

6205. **Fuortes, M. G. F., & Mantegazzini, Francoise.** (National Inst. Health, Bethesda, Md.) Interpretation of the repetitive firing of nerve cells. *J. gen. Physiol.*, 1962, 45(6), 1163-1179.—Description is given of experiments with eccentric cells of Limulus which responded with repetitive firing to sustained depolarizing currents. It is concluded that prolonged currents depress the processes leading to excitation and that repetitive firing is controlled both by the aftereffects of firing and by the depressant effects of sustained stimuli. Development of subthreshold "graded activity" is important, but it is not the main factor determining frequency of firing in response to constant currents.—*D. R. Peryam.*

6206. **Gruner, Jean Emmanuel.** Histological study of the maturation of the nervous system. *Develpm. Med. child Neurol.*, 1962, 4(6), 626-639.—"Neuronal maturation is described under four headings (1) nucleus and nucleolus, (2) Nissl granules and perikaryon, (3) neuronal specialization and synaptic interrelations, and (4) maintenance of the mature state. . . . Functional maturation is seen first in the motor, then in the sensory and finally in the autonomic neurones. The cerebellum is mature after birth, whereas the cerebral cortex matures at different times and for different regions." The treatment is comparative in nature, introducing, as needed, research evidence on the chicken, guinea pig, man, dog, cat, white rat, hamster, and opossum.—*T. E. Newland.*

6207. **Kuypers, Henricus G. J. M.** (U. Maryland) Corticospinal connections: Postnatal development in the rhesus monkey. *Science*, 1962, 138 (Whole No. 3541), 678-680.—The spinal distribution of the corticospinal fibers was studied experimentally in infant rhesus monkeys (Macaca mulatta) by means of the Nauta-Gygax silver impregnation technique. The findings suggest that the bulk of the direct corticomotoneuronal connections in the rhesus monkey are established postnatally, during at least the 1st 8 months of life.—*Journal abstract.*

6208. **Sirotnina, O. S.** (State U., Voronezh, USSR) Neironnoe stroenie korkovogo otdela slukhovogo analizatora cheloveka v ontogeneze. [The neuron structure of the auditory cortical analyzer in ontogenesis.] *Zh. vyssh. nervn. Deiatel.*, 1962, 12(4), 606-612.—Microscopical study of the auditory cortex of fetuses of children (aged 4.5 mo.-14 yr.) and of adults (18-56 yr.). The pyramidal neurons of the III, V, and VI layers begin to differentiate during the 7th month of embryonic stage. By the time of birth they are fully developed. The cells of the II layer mature later and more slowly. The "thorny" dendrite ramifications of the pyramidal cells of the III and V layers appear by the time of birth and increase particularly in the 1st year of life.—*A. Cuk.*

6209. **Smirnov, G. D., & Il'yuchenok, R. YU.** (A. N. Severtzev Inst. Animal Morphology, Acad. Science, Moscow, USSR) Kholinergicheskiy mekhanizm kortikal'noi aktivatsii. [Cholinergic mechanism of cortical activation.] *Fiziol. Zh. SSSR*, 1962, 48(10), 1141-1145.—Either electrical stimulation of the sciatic nerve or intravenous injection of amphetamine normally produce cortical activation (low voltage fast) in the EEG of rabbits. This response is blocked, however, by local application of a cholinergic in the parietal or striate areas.—*D. G. McDonald.*

LESIONS & BEHAVIOR

6210. **Aarons, Louis; Halasz, Hisako K., & Riesen, Austin H.** (Northwestern U.) Interocular transfer of visual intensity discrimination after ablation of striate cortex in dark-reared kittens. *J. comp. physiol. Psychol.*, 1963, 56(1), 196-199.—Assuming that the subcortical visual system mediates learning and interocular transfer of intensity discriminations in dark-reared cats, the authors predicted that habits would be retained after ablation of visual cortex and show complete transfer on tests with the previously unused eye. However, all 6 dark- and all 7 light-reared kittens lost monocularly trained habits postoperatively. After retraining with the initial eye, animals of both groups showed immediate interocular transfer, as did unoperated control Ss. It was concluded that with or without cortical participation, visual intensity (as opposed to pattern) discrimination habits are innately organized for interocular stimulus equivalence.—*Journal abstract.*

6211. **Affanni, J., Marchiafava, P. L., & Zernicki, B.** (Inst. Fisiologia, U. Pisa) Conditioning in the midpontine pretigeminal cat. *Arch. Ital. Biol.*, 1962, 100(3), 305-310.—"When in the midpontine pretigeminal preparation of the cat the visual stimulus (train of flashes) was repeatedly followed by hypothalamic stimulation producing pupillary dilation, after a number of trials the photic stimulus began to elicit the same pupillary reaction. At the beginning of the training this reaction was unstable but after several experimental sessions it became constant. This reaction is considered to be a true conditioned reflex and not a potentiation of the orientation reaction by hypothalamic stimulation (pseudo-conditioning)."—*C. T. Morgan.*

6212. **Affanni, J., Marchiafava, P. L., & Zernicki, B.** (Inst. Fisiologia, U. Pisa) Orientation reactions in the midpontine pretigeminal cat. *Arch. Ital. Biol.*, 1962, 100(3), 297-304.—"In the midpontine pretigeminal cat orientation reflexes to visual stimuli are present. They consist of vertical eye movements toward the stimulus, pupillary dilation and, in given conditions, EEG arousal. Habituation of the orientation reflex by repetition of the visual stimulus is easily obtained; the reflex partially recovers after a few minutes of rest. The midpontine pretigeminal cat is a convenient preparation for the study of the neural mechanisms underlying the orientation reflex."—*C. T. Morgan.*

6213. **Brown, Thomas S., Rosvold, H. Enger, & Mishkin, Mortimer.** (National Inst. Mental Health) Olfactory discrimination after temporal lobe lesions in monkeys. *J. comp. physiol. Psychol.*, 1963, 56(1), 190-195.—This study investigated the effects of bilateral superior and inferior temporal lobe lesions on the postoperative learning of olfactory and visual discrimination tests with both simultaneous and successive presentation of stimuli. The Ss were 3 rhesus monkeys with inferotemporal lesions, 3 with ablations of the anterior half of the superior temporal gyrus plus the temporal pole, and 2 unoperated controls. The inferotemporal group performed more poorly on the visual tests than the other 2 groups. On the simultaneous olfactory tests, no differences appeared; however, on the successive olfactory tests both operated groups were equally impaired when compared with the controls. Conclusions are: (a) the infero-

temporal cortex is the essential area for visual discrimination in the temporal lobe and (b) while no final statement can be made regarding a focal area serving discrimination in olfaction, it is clear that it must be different from the one serving discrimination in vision. (16 ref.)—*Journal abstract.*

6214. Brutkowski, S. (Nencki Inst. Experimental Biology, Warsaw, Poland) **The effect of prefrontal lobectomies on salivary conditioned reflexes in dogs.** *Acta Biol. exp., Warsaw*, 1957, 17(2), 327-337.—In dogs, in which conditioned salivary alimentary reflexes, both excitatory and inhibitory, are established, prefrontal lobectomies produce a pronounced impairment of inhibitory reflexes, whereas the excitatory reflexes are left unchanged. The degree and duration of impairment of inhibitory reflexes depends on the difficulty of the inhibitory task, the type of the nervous system of the dog, and the extent of lesion. The rate of restitution of inhibitory reflexes depends on factors enumerated. In some cases the disturbance of inhibition seems to be irreversible. The control ablations of similar extent in the parietal region do not produce this disorder.—*Journal abstract.*

6215. Brutkowski, S. (Nencki Inst. Experimental Biology, Warsaw, Poland) **Comparison of classical and instrumental alimentary conditioned reflexes following bilateral prefrontal lobectomies in dogs.** *Acta Biol. Exp., Warsaw*, 1959, 19, 291-299.—The effects of prefrontal lesions on the salivary and instrumental components of the alimentary conditioned reflexes were investigated both to excitatory and inhibitory conditioned stimuli as well as in intertrial intervals. It was found that postoperative disinhibition affects in nearly the same degree the salivary and motor conditioned reactions, and that they return simultaneously to normal after a lapse of time. There are some cases in which the salivary and motor reactions do not run parallel, the one of them or the other being disinhibited. The mechanism of these discrepancies is discussed.—*Journal abstract.*

6216. Brutkowski, S. (Nencki Inst. Experimental Biology, Warsaw, Poland) **Effects of prefrontal ablations on salivation during the alimentary unconditioned reflex and after its cessation.** *Acta Biol. Exper., Warsaw*, 1959, 19, 281-289.—“The present paper is concerned with the effects of removal of prefrontal lobes in dogs on the salivation during the alimentary unconditioned reflex (act of eating) and after its cessation. . . . [After] bilateral removal of the frontal lobes involving either gyrus preceus and gyrus orbitalis anterior, or encroaching also upon the anterior part of gyrus preceus, gyrus sigmoideus anterior and gyrus compositus anterior, the salivary secretion to the unconditioned stimuli, and in intertrial intervals, is augmented. This augmented salivation is chiefly due to the protraction of the act of eating, consisting in a very careful emptying of the bowl, licking it out and rummaging inside it, though the food is already eaten. The augmented unconditioned and intertrial salivation lasts about 7-14 days following the ablation, and amounts to about 125% of the preoperative level. . . . After parietal ablations no change in unconditioned and intertrial salivation is observed.” (31 ref.)—C. T. Morgan.

6217. Brutkowski, S. (Nencki Inst. Experimental Biology, Warsaw, Poland) **The solution of a difficult inhibitory task (alternation) by normal and**

prefrontal dogs. *Acta Biol. Exper., Warsaw*, 1959, 19, 301-312.—The “majority of normal dogs is able to master alternation with greater or lesser difficulty; however, there are some normal dogs which are not able to solve this test even after very prolonged training; in some dogs which were able to master this test this ability was totally and irreversibly lost after prefrontal ablations; some prefrontal dogs were able to solve this test; in one of these dogs the enlargement of the prefrontal lesion led to temporary abolishment of the alternation which was restored after about a month. The successful performance of the alternation test seems to depend on individual features of animals: the dogs belonging to the Pavlovian strong and balanced type are able to master alternation even after extensive prefrontal lesions; on the other hand, the dogs belonging to the unbalanced or weak type are not able to do so even without surgery. The ablation of prefrontal lobes does not change fundamentally the general typological properties of the dogs.”—C. T. Morgan.

6218. Forbes, Alexander, & Mahan, Clare. (Harvard U.) **Attempts to train the spinal cord.** *J. comp. physiol. Psychol.*, 1963, 56(1), 36-40.—In hope of comparing symmetrical trained and untrained centers in the spinal cord of the cat histologically, an attempt was made to establish linkage between afferent nerves from the tail and the flexor center on one side. Concurrent stimulation of the tail and hind foot in a spinal cat failed to establish linkage. Intact cats were trained to stop electric shocks to the tail by flexing the right hind leg, thus breaking the stimulating circuit. The results—variation in the voltage to tail required to cause flexion, increased threshold voltage on distraction, much greater latency of flexion to tail stimulus than in the flexion reflex, rise in threshold voltage under light etherization, complete absence of linkage after spinal transection—all showed that learning was in the brain, not in the spinal cord.—*Journal abstract.*

6219. Gavrilova, L. N. (Inst. Experimental Medicine, Leningrad, USSR) **Uslovyne refleksy s kozhnogo analizatora posle odnostoronnnego udaleniya talamusa.** [Cutaneous CR after unilateral ablation of the thalamus.] *Zh. vyssh. nervn. Deiatel.*, 1962, 12(4), 649-656.—Ss were 2 dogs in which parts of the tongue and ducts of the parotid glands were exposed. After the removal of the thalamus, the CRS to skin stimulation of both sides of the body disappeared if they had been elaborated on the basis of unconditioned acid stimulation of the part of the tongue on the side of the operation. Stimulation of the same parts of the skin produced CR if the acid reinforcement was applied to the intact side.—A. Cuk.

6220. Glickstein, M., Arora, H. A., & Sperry, R. W. (U. Washington) **Delayed-response performance following optic tract section, unilateral frontal lesion, and commissurotomy.** *J. comp. physiol. Psychol.*, 1963, 56(1), 11-18.—Serial operations were performed on 9 Macaca mulatta to transect optic tract on one side, to ablate one frontal area, and to transect the corpus callosum, psalterium and anterior commissure. Delayed-response performance in Ss with visual input ipsilateral to normal frontal area was superior to that in those with visual input contralateral to normal cortex. Subsequent commissurotomy virtually ended correct delayed-response performance in

Ss with contralateral lesions, but had far less effect on those with ipsilateral lesions. Hyperactivity was not correlated with impairment of delayed-response performance. Corticocortical connections between occipital and anterior frontal cortex via cortical association fibers are probably crucial for successful delayed-response performance. Moreover, interhemispheric connections are capable of sustaining psychological functions dependent on corticocortical connections. (18 ref.)—*Journal abstract*.

6221. Gomez, Juan A., & Mettler, Fred A. (Montefiore Hosp., NYC) Effect of bilateral anterior cingulate damage in cats. *J. Neurol. Neurosurg. Psychiat.*, 1962, 25(4), 387-391.—"In 18 adult cats the cingulate area was removed bilaterally and the animals were observed for at least 35 days. Twelve cats with ablation of the anterior third of the lateral gyri were used as controls. All animals were sacrificed and the brains were photographed, fixed, stained, and examined microscopically for anatomical reconstruction of the lesions. No gross behavioral disturbance and no specific neurological syndrome could be attributed to destruction of the cingulate area alone." (25 ref.)—*M. L. Simmel*.

6222. Gross, Charles G. (Massachusetts Inst. Technology) A comparison of the effects of partial and total lateral frontal lesions on test performance by monkeys. *J. comp. physiol. Psychol.*, 1963, 56(1), 41-47.—3 monkeys with sulcus principalis lesions (P group), 3 with lateral frontal lesions sparing sulcus principalis (NP group), 3 with total lateral frontal lesions (T group) and 3 unoperated Ss (U group) were compared on retention of simultaneous visual discrimination and acquisition of (a) delayed alternation, (b) auditory discrimination, (c) 2 successive visual discriminations, and (d) discrimination reversal. The groups did not differ on the visual tasks. On alternation both the P and T groups were severely impaired, the T group being poorer. On auditory discrimination only the T group was markedly impaired. Alternation results lend themselves to a focus-field description. Both focus-field and mass action descriptions are consistent with the auditory discrimination findings. (15 ref.)—*Journal abstract*

6223. Gross, Charles G. (Massachusetts Inst. Technology) Discrimination reversal after lateral frontal lesions in monkeys. *J. comp. physiol. Psychol.*, 1963, 56(1), 52-55.—Monkeys impaired on delayed response following midlateral frontal lesions, control operatees, and unoperated Ss were tested on 2 discrimination reversals. In Experiment 1 Ss were repeatedly tested for reversal of a discrimination within a session and retention of the same discrimination over 24 hr. Each reversal phase and each retention phase consisted of 30 trials. The frontal operatees made more errors than the other Ss in the reversal phases but not in the retention phases. In Experiment 2 Ss were trained to reverse a previously well-established visual habit. The groups overlapped on this task; each required a mean of over 100 trials to reach criterion. The results suggest that midlateral frontal lesions produce a discrimination deficit that is inversely related to the number of trials per problem. (16 ref.)—*Journal abstract*.

6224. Gross, Charles G. (Massachusetts Inst. Technology) Effect of deprivation on delayed response and delayed alternation performance by

normal and brain operated monkeys. *J. comp. physiol. Psychol.*, 1963, 56(1), 48-51.—3 monkeys impaired on delayed response and delayed alternation after midlateral frontal lesions, 3 monkeys unimpaired on these tasks after control lesions, and 3 unoperated monkeys were tested on spatial delayed response (with direct baiting) and spatial delayed alternation following 2, 26, and 50 hr. of food deprivation. Increased deprivation improved delayed response performance by all groups to a similar extent. Increased deprivation had no effect on delayed alternation performance by any group.—*Journal abstract*.

6225. Isaac, Walter, & Baker, E. Jo. (Emory U.) A changing effect of cortical ablation with age. *J. comp. physiol. Psychol.*, 1963, 56(1), 167-168.—The effect of a simultaneous bilateral ablation of the occipital cortex upon the formation of a conditioned avoidance response was investigated in rats at 2 age levels. A difference between operated and unoperated groups was found. An interaction between age and the operation was observed. Young-operated rats did more poorly than young-unoperated animals, while older-operated rats did better than older-unoperated animals.—*Journal abstract*.

6226. Kalinina, T. E. (Kirov Medical Inst., Gor'kii, USSR) Vlianie udaleniia slukhovoï i smezhnykh oblastei kory na zvukovye uslovnye refleksy. [Effect of the removal of the acoustic and adjacent cortical areas on auditory CR.] *Zh. vyssh. nervn. Deiatel.*, 1962, 12(4), 720-726.—CR to auditory stimuli were elaborated on 6 cats with a greater part of the neocortex preliminarily removed. It was found that Ss' ability of discriminating sounds by their pitch differs but little from that in normal ones. It was concluded that cortical areas adjacent to the acoustic ones do not substantially participate in the analysis of auditory stimuli.—*A. Cuk*.

6227. Kimble, Daniel Porter. (U. Michigan) The effect of bilateral hippocampal damage on cognitive and emotional behavior in the rat. *Disser. Abstr.*, 1962, 22(7), 2478-2479.—*Abstract*.

6228. Lawicka, W. (Nencki Inst. Experimental Biology, Warsaw, Poland) The effect of the prefrontal lobectomy on the vocal conditioned reflexes in dogs. *Acta Biol. exp., Warsaw*, 1957, 17(2), 317-325.—Vocal instrumental alimentary conditioned reflexes, both excitatory and inhibitory, were established in dogs in order to examine changes produced in them after prefrontal ablations. Excitatory vocal conditioned reflexes are slightly changed after operation in that the dog barks to the conditioned stimulus repeatedly in very quick succession. Inhibitory conditioned reflexes both to the experimental situation and to inhibitory stimuli are disinhibited. All these changes gradually disappear in the course of weeks or months.—*Journal abstract*.

6229. Lawicka, W., & Konorski, J. (Nencki Inst. Experimental Biology, Warsaw, Poland) Physiological mechanism of delayed reactions: III. The effects of prefrontal ablations on delayed reactions in dogs. *Acta Biol. Exper., Warsaw*, 1959, 19, 221-231.—"An investigation of the performance of dogs with limited prefrontal lesions (involving g. proneus and orbitalis) in the triple delayed-response test. . . . [Prefrontal] animals are able to go to the correct food-tray in the post-delay run only if they

have, throughout the delay period, preserved their bodily orientation towards that foodtray. If during this period the bodily orientation has been changed, they go, on release, to that foodtray to which they are immediately turned. The animals are able to learn to keep their bodily orientation unchanged during the delay periods, and thus their performance in the course of experimentation gradually improves. All those distracting stimuli which provoke a sufficiently strong orientation reaction to change the animal's posture inevitably disturb the post-delay reaction: after release, the animal runs in the direction which was imposed on him by the distracting stimulus."—C. T. Morgan.

6230. Pinto-Hamuy, Teresa; Santibañez-H, Guy, & Rojas, Aristides. (U. Chile) Learning and retention of a visual conditioned response in neocorticate rats. *J. comp. physiol. Psychol.*, 1963, 56 (1), 19-24.—This experiment is the 1st step undertaken to analyze the role of the cerebral cortex in avoidance behavior. A group of 20 normal and 2 groups of neocorticate rats were trained in an avoidance CR to a light signal. One group of neocorticate Ss was trained postoperatively (Group A, N=10) and the other pre- and postoperatively (Group B, N=20). In the latter, retention of the habit was also studied. Both groups of neocorticate Ss showed a serious deficit in the learning of the CR (visual) as compared with normal Ss. Preoperatively trained Ss appeared to perform better than Ss trained postoperatively. The deficit of the performance of neocorticate Ss in the CR are interpreted to be determined by the nature of the CS (visual) and by the nature of the CR (general motor response in free situation). (16 ref.)—*Journal abstract*.

6231. Saavedra, Maria A., Garcia, E., & Pinto-Hamuy, Teresa. (U. Chile) Acquisition of auditory conditioned responses in normal and neocorticate rats. *J. comp. physiol. Psychol.*, 1963, 56 (1), 31-35.—Inability of neocorticate rats to learn a visual avoidance CR raised the question of whether similar results would be obtained using an auditory CS. Ss of this experiment were 12 normal and 12 neocorticate rats. The results of "normals and operatees" were contrasted with the corresponding groups trained on a visual CR in a previous study. Neocorticate animals showed a deficit in the learning of the auditory avoidance CR ($p=.001$). In comparing both groups of neocorticates Ss trained on the auditory habit learned faster and reached a higher level of performance than those trained with the visual stimulus ($p=.05$). Factors which may account for this differential effect between CS modalities are described. (16 ref.)—*Journal abstract*.

6232. Saavedra, Maria A., & Pinto-Hamuy, Teresa. (U. Chile) Effects of removal of the anterior or posterior portions of the neocortex on learning and retention of a visual habit. *J. comp. physiol. Psychol.*, 1963, 56(1), 25-30.—Effects of removal of the rostral or occipital portions of the neocortex on acquisition and relearning of a visually conditioned response (VCR) were examined in 46 rats. Results indicate that: (a) Lesions in the anterior as well as in the posterior half of the neocortex produce a profound deficit on learning and relearning of VCRs. (b) The deficit in postoperative acquisition of VCRs is greater with the removal of the posterior

than of the anterior half of the hemisphere. The removal of the posterior half alone causes the animal to perform as if it were completely neocorticate. (c) There is no effect of previous experience on animals with rostral ablations of the neocortex. Rats with occipital removals relearn a VCR significantly better than animals without preoperative experience.—*Journal abstract*.

6233. Thompson, R. L., & Mettler, F. A. (Columbia U.) Permanent learning deficit associated with lesions in the caudate nuclei. *Amer. J. ment. Defic.*, 1963, 67(4), 526-535.—The effect of striatal lesions in a number of cats is described. Removal of about 75% of the heads of the caudate nuclei seemed to produce an incorrigible deficit in instrumental escape, avoidance, and food approach learning. Signs of neurologic deficit were virtually absent in one cat. Infringement upon adjacent brain structures was inevitable in attempting large extirpations. The authors state that the results are particularly important when it is recognized that in the absence of obvious sensory or motor incapacity, total and prolonged failure to learn has seldom been indicated in the literature on brain injuries in animals.—V. S. Sexton.

6234. Thompson, Robert, & Rich, Irene. (U. California, Los Angeles) Differential effects of posterior thalamic lesions of retention of various visual habits. *J. comp. physiol. Psychol.*, 1963, 56 (1), 60-65.—2 experiments are reported on the effects of pretectal diencephalic (nucleus-posterior thalami) lesions on retention of 3 different visual discrimination habits in rats. In Experiment 1 these lesions were found to have a significantly greater effect on a simultaneous brightness discrimination than on a simultaneous form discrimination. Increasing the difficulty of the brightness habit did not exaggerate the retention loss produced by such lesions. In Experiment 2 partial destruction of the nucleus posterior in rats lacking the striate cortex significantly interfered with the retention of a brightness discrimination. Partial damage to the superior colliculus, however, had no effect. (20 ref.)—*Journal abstract*.

6235. Vanderwolf, C. H. (McGill U., Canada) Medial thalamic functions in voluntary behaviour. *Canad. J. Psychol.*, 1962, 16(4), 318-330.—Following bilateral electrolytic destruction of the medial thalamic nuclei rats were virtually incapable of making rapid avoidance responses to electric shock, but could escape from shock as rapidly as a normal animal. There was little or no deficit in the acquisition of a conditioned fear. Avoidance responses were evident when sufficient time was given. It appears that what was impaired was the capacity to initiate a voluntary act.—R. S. Davidson.

6236. Young, J. Z. (University Coll., London, England) Repeated reversal of training in octopus. *Quart. J. exp. Psychol.*, 1962, 14(4), 206-222.—Octopuses were trained by successive presentations to discriminate between 2 figures by means of a combination of food rewards and electric shocks. This was followed by a series of up to 9 daily sets of trials in which reward and punishment were systematically reversed on alternate days. It was found that performance became progressively less accurate with successive reversals until it reached a random level; this appeared largely due to a continual fall in the total

number of attacks at the figures. At the same time, such attacks as were made were mainly at the positive figures and there was evidence that performance as judged by this criterion became more accurate during each day and perhaps progressively more accurate on successive days. Octopuses lacking the vertical lobe showed a fall in the total number of attacks but did not show this improvement within each day or over successive days. A theoretical interpretation of the results is put forward.—*Journal abstract.*

6237. Young, J. Z. (University Coll., London, England) **Reversal of learning in octopus and the effect of removal of the vertical lobe.** *Quart. J. exp. Psychol.*, 1962, 14(4), 193-205.—Experiments are described on reversal of learned response in the octopus. It is shown that normal animals are able to reverse learned responses to vertical and horizontal rectangles shown successively but that animals lacking vertical lobes are unable to reverse such a discrimination. These, and related results are discussed in relation to the hypothesis that learning consists in appropriate conditioning of cells in the optic lobes that respond to particular visual features but that the vertical lobe plays an important part in making the memory effective, perhaps by generalising the conditioning to optic lobe cells other than those directly stimulated in the process of learning.—*Journal abstract.*

BRAIN STIMULATION

Central Stimulation

6238. Travis, Robert P., Jr., & Sparks, David L. (U. Alabama) **The influence of unilateral and bilateral spreading depression during learning upon subsequent relearning.** *J. comp. physiol. Psychol.*, 1963, 56(1), 56-59.—An experiment was conducted to evaluate effects of prior avoidance training under varying degrees of spreading cortical depression (SD) on the subsequent performance of the nondepressed rat. All Ss met a criterion of 9 avoidance responses out of 10 trials during each of 3 experimental sessions. Conclusions are: (a) training without depression is superior to training with unilateral SD, which is superior to training with bilateral SD in facilitating subsequent performance with nondepressed Ss; (b) training with SD limited to one hemisphere is equally as effective as the same amount of training with SD alternated between the hemispheres in facilitating later nondepressed performance; (c) Ss receiving bilateral SD are incapable of avoidance learning but do improve in escape performance; and (d) there is negative transfer between extensive escape training received during bilateral SD and subsequent avoidance learning without SD.—*Journal abstract.*

Electroshock

6239. Williams, Gertrude J. (Washington U.) **The effect of varying the interval between conflict training and electroconvulsive shock on an instrumental conditioned emotional response.** *J. comp. physiol. Psychol.*, 1963, 56(1), 129-131.—115 male albino rats were randomly divided into a group which received no exposure to conflict and a group exposed to a conflict situation in which an instrumental conditioned emotional response (CER) was learned. Each group was subdivided into short and long interval treatment groups which received ECS or

pseudoshock 1 and 13 days, respectively, after training. After 4 days rest Ss were given 10 test trials, and magnitude of the CER was determined. Long and short interval ECS groups were significantly differentiated for the 1st 3 test trials. Comparisons of these groups with their pseudoshock controls indicate that ECS attenuated CER in the short interval group, whereas CER was minimally affected by ECS in the long interval group.—*Journal abstract.*

ELECTROENCEPHALOGRAPHY

6240. Boldyreva, G. N., & Rusinov, V. S. (Moscow, USSR) **Dinamika uslovnoreflektornykh izmenenii EEG pri mnogokratnykh sochetaniakh zvuka s ritmicheskimi svetovym razdrashitelem.** [Dynamics of conditioned changes in the EEG resulting from repeated combinations of a sound with a rhythmical light stimulus.] *Zh. vyssh. nervn. Deiatel.*, 1962, 12(6), 1011-1020.—A conditioned change-over of the human EEG (obtained on 11 Ss aged 18-35) as a result of combinations of a sound stimulus with a rhythmical photic stimulus showed a highly unstable and irregular character due to its rapid extinction. At the initial stages of elaboration the change-over is diffuse and relatively local. As the combinations are repeated, the change-over is recorded mainly in the centers of representation of the CS and US.—*A. Cuk.*

6241. Chapman, Robert M., Armington, John C., & Bragdon, Henry R. (Walter Reed Army Inst. Research, Washington, D. C.) **A quantitative survey of kappa and alpha EEG activity.** *EEG clin. Neurophysiol.*, 1962, 14, 858-868.—An electronic EEG scorer was used to quantify temporal kappa (temporal activity in 7-12 cps range) and occipital alpha EEG activities in 100 Ss while they were performing hard and easy tasks with their eyes open and closed. Distribution of kappa scores suggest quantitative rather than qualitative differences between Ss. Evidence supporting the distinction between kappa and alpha EEG activities was presented. Kappa was found to increase during hard tasks while alpha decreased and kappa was less affected by opening the eyes than was alpha. Simultaneous alpha and kappa scores indicated these were independent and occur simultaneously by chance.—*L. C. Johnson.*

6242. Kropfl, Walter J., Chapman, Robert M., & Armington, John C. (Walter Reed Army Inst. Research, Washington, D. C.) **Apparatus for scoring selected electroencephalographic rhythms.** *EEG clin. Neurophysiol.*, 1962, 14, 921-923.—"An electronic EEG scorer is described which automatically sums the time during which EEG activity of a preset frequency range is above a preset amplitude. Scores similar to the alpha index are obtained. Commercial modules and analog computer techniques make the device easy to build and reliable in performance. It has been found useful in studying the relation between selected EEG rhythms and behavior."—*L. C. Johnson.*

6243. Maritz, A. M. (Inst. Zoology, Moldavian Acad. Science, Kishinev) **Vliyehie goloda i nas'shcheniya na bioelektricheskuyu aktivnost' retikulyarnoi formatzii i kory bol'shikh polusharii golovnogo mozga.** [Effects of fasting and satiety on electrical activity of the reticular formation and cerebral cortex.] *Fiziol. Zh. SSSR*, 1962, 48(8),

889-892.—EEG changes in the cerebral cortex and brain stem reticular formation were observed in 3 dogs over a 48 hour period of starvation, which was followed by a period of satiation. After 1 day of starvation, the EEG of the alert animal showed long lasting periods of low voltage, asynchronous activity, mixed with short periods of high voltage, synchronous activity. After 2 days of starvation, only the low voltage activity was observed. 5 and 30 minutes after satiation, the normal EEG was observed. Auditory stimulation also produced a brief period of normal EEG activity in the starved animal, whereas low voltage activity appeared in the satiated animals.—D. G. McDonald.

6244. Minut-Sorokhtina, O. P., Sorokhtina, G. N., & Temper, YU. B. (Medical Inst., Khabarovsk) *Polyarizatsionnyi potentzial mozga pri umirani. [Polarization brain potential during dying.] Fiziol. Zh. SSSR*, 1962, 48(8), 893-898.—EEG changes in the cerebral cortex of 50 white mice were observed during dying. Onset of death was characterized by 2 phases in the EEG: (a) a sudden period of hyperpolarization, followed by (b) an equally sudden phase of depolarization. The phase of hyperpolarization was stereotyped and interpreted as a prodromal sign of necrosis, independent of the cause of death.—D. G. McDonald.

6245. Mirzoiants, N. S. (USSR Acad. Medical Sciences, Moscow) *Vozrastnye i individualnye razlichia funktsional'nogo sostoiianiia mozga detei rannego vozrasta po dannym elektroentsefalografii. [Age and individual differences in the functional state of the brain of infants according to EEG.] Zh. vyssh. nervn. Deiatel.*, 1962, 12(6), 1042-1048.—The EEG was recorded in 20 normal babies at age 15 days to 1½ yr. It was found that: (a) With age, the frequency and amplitude of the waves increase, and the rhythm becomes more pronounced. (b) EEG depends upon the functional condition of the brain, the more excitable the cortex, the more desynchronized the EEG appears to be.—A. Cuk.

6246. Mulholland, Thomas, & Runnals, Sylvia. (VA Hosp., Bedford, Mass.) *Evaluation of attention and alertness with a stimulus-brain feedback loop. EEG clin. Neurophysiol.*, 1962, 14, 847-852.—A simple feedback loop electronic apparatus was described by which selected EEG frequencies could cause a stimulus to occur. In this study the presence of alpha was used to trigger a stimulus, and when alpha was suppressed the stimulus was automatically removed. The results indicated that the on and off response of the stimulus reflected variation of the latency and duration of the alerting response. It was felt the technique could be usefully applied to the study of internal attention states.—L. C. Johnson.

6247. Mulholland, Thomas, & Runnals, Sylvia. (VA Hosp., Bedford Mass.) *Increased occurrence of EEG alpha during increased attention. J. Psychol.*, 1962, 54(2), 317-330.—The occurrence of EEG alpha during continuing attention-sets and during recurring alerting responses was compared. Alpha was frequently facilitated during periods of attention-sets and occasionally suppressed. However, the familiar suppression of alpha occasioned by alerting to an external signal was clearly evident. It was concluded that the classical alpha suppression-attention

correlation refers to a special case, i.e., transitory alerting to an external signal.—Author abstract.

6248. Pompeiano, O., & Swett, J. E. (Inst. Fisiologia, U. Pisa) *EEG and behavioral manifestations of sleep induced by cutaneous nerve stimulation in normal cats. Arch. Ital. Biol.*, 1962, 100(3), 311-319.—“Low rate stimulation of low threshold, cutaneous fibers induced synchronization of the EEG over the dorsal aspect of the cat's neo-cortex. The phenomenon was obtained in normal freely moving cats with implanted EEG and EMG recording electrodes and peripheral nerve stimulating electrodes. Induced EEG synchronization was sometimes also accompanied by behavioral sleep symptoms such as eye closure, reduction of tonic EMG activity, or both.”—C. T. Morgan.

6249. Pompeiano, O., & Swett, J. E. (Inst. Fisiologia, U. Pisa) *Identification of cutaneous and muscular afferent fibers producing EEG synchronization or arousal in normal cats. Arch. Ital. Biol.*, 1962, 100(3), 343-373.—“The different EEG effects obtained in normal unrestrained cats by stimulating pure cutaneous and muscular afferent fibers with different parameters of electrical stimulation were correlated with the conduction velocities of the corresponding nerve fibers, carried out in the same animal as a terminal experiment. The EEG synchronization induced by low frequency stimulation of the cutaneous nerves was obtained with stimulus intensities suprathreshold for group II fibers. Low frequency stimulation of group III cutaneous fibers, as well as high frequency stimulation of group II fibers, constantly evoked EEG and behavioral arousal.”—C. T. Morgan.

6250. Roth, B. (Karls U., Prague, Czechoslovakia) *Die chronische Insuffizienz des Vigilanz-Zustandes und ihre klinische und neurophysiologische Bedeutung: EEG-Studie. [Chronic insufficiency of alertness and its clinical and neurophysiological significance: Electroencephalographic study.] Psychiat. Neurol. med. Psychol., Leipzig*, 1962, 14(8), 293-300.—EEG rhythms, which were interpreted as signs of various depths of sleepiness, were found not only in a large series of patients with narcolepsy and hypersomnia, but also in over ½ of the cases of “neurasthenia,” “hysteria,” “autonomic nervous system dysfunction,” “pseudoneuroses,” and even in 10%-15% of normal controls. This leads to the conclusion that the failure of the unspecific activating systems to “raise the tonus of cortical activity” is important in the development of neurotic symptoms.—R. Kaelbling.

6251. Toporkova, L. A. (Medical Inst., Kuibyshev, USSR) *Izmeneniia bioelektricheskoi aktivnosti dvigatel'noi, zritel'noi i slukhovoï oblasti kory golovnogo mozga pri obrazovanii dykhatel'nykh refleksov. [Changes in bio-electrical activity of the motor, visual, and auditory areas of the cortex during respiratory conditioning.] Zh. vyssh. nervn. Deiatel.*, 1962, 12(4), 715-719.—EEG was recorded in 3 cats from the motor, visual, and auditory areas of the cortex during conditioning. 3 main phases of changes were found: desynchronization which coincides with the initial appearance of respiratory reflex, recruitment of stimulation rhythm which corresponds to the stabilization of the reflexes, and disappearance of changes in bio-electrical activity which reflects

the period of concentration of processes in narrowly limited cortical areas involved in temporary connection with the respiratory center.—*A. Cuk.*

EVOKED POTENTIALS

6252. Abrahams, V. C., Hilton, S. M., & Malcolm, J. L. (National Inst. Medical Research, Mill Hill, London, England) **Sensory connexions to the hypothalamus and midbrain, and their role in the reflex activation of the defence reaction.** *J. Physiol., London*, 1962, 164, 1-16.—In anaesthetized cats, cutaneous, auditory, and visual stimuli evoke potentials in widespread regions of the hypothalamus, central grey matter, and mid-brain tegmentum. These potentials have long latencies, are reduced by pentobarbitone, and survive removal of the cerebral cortex. Convergence of afferent pathways is indicated both within a single system and for different sensory systems. "Thus, the afferent connexions do exist which would enable these brain-stem regions to function as a reflex centre for the defence reaction."—*D. R. Peryam.*

6253. Anand, B. K., Chhina, G. S., & Singh, B. **Effect of glucose on the activity of hypothalamic "feeding centers."** *Science*, 1962, 138(Whole No. 3540), 597-598.—The unit activity of the neurons in the hypothalamic "satiety" and "feeding" centers and adjacent control regions was recorded before and after intravenous injection of glucose. Increase in blood glucose and arteriovenous glucose difference (glucose utilization) increases the activity of satiety center neurons and slightly decreases the activity of feeding center neurons, without producing any significant change in the activity of control regions.—*Journal abstract.*

6254. McAdam, Dale William. (State U. Iowa) **An electrophysiological study of some neural correlates of classical aversive conditioning in the cat.** *Dissert. Abstr.*, 1962, 22(8), 2884.—*Abstract.*

6255. Skrebitzkii, V. G. (Electrophysiology Lab., Brain Inst., Acad. Medical Sciences, Moscow, USSR) **Dinamika izmenenii vyzvannykh potentzialov v period protekaniya orientirovochhogo refleksa.** [Pattern of changes in evoked potentials within the course of an orienting reflex.] *Fiziol. Zh. SSSR*, 1962, 48(10), 1163-1169.—A rhythmic 2 per sec. light stimulus produced an evoked response in the EEG of dogs. The addition of a sound stimulus, which produced an orienting reflex, either augmented a low amplitude response to light or decreased a high amplitude response. Thereafter, as the sound ceased to evoke an orienting reflex, it ceased to influence the response to light.—*D. G. McDonald.*

6256. Sokolova, A. A. (N. N. Burdenko Inst. Neurosurgery, Moscow) **Issledovanie vyzvannykh potentzialov v EEG krolika v ovet na elektrokozhnoe razdrashenie v usloviyakh khronicheskogo eksperimenta.** [An investigation of evoked potentials in the EEG of the rabbit in response to electrical cutaneous stimulation in chronic experiments.] *Fiziol. Zh. SSSR*, 1962, 48(11), 1301-1310.—Evoked potentials in response to electrodermal stimulation were recorded from implanted sensorimotor electrodes in 5 rabbits. Several days after the electrodes were implanted the evoked response stabilized and was observed to be a consistent negative wave followed by a positive wave of lower voltage.

The response could be recorded from areas surrounding the sensorimotor area, although less clearly and less stable in form. The evoked potential in response to electrodermal stimulation could be distinguished from the evoked potentials following light stimulation. (52 ref.)—*D. G. McDonald.*

6257. Williams, Harold L., Tepas, Donald I., & Morlock, Henry C. (Walter Reed Army Inst. Research, Washington, D. C.) **Evoked responses to clicks and electroencephalographic stages of sleep in man.** *Science*, 1962, 138(Whole No. 3541), 685-686.—The form of the average evoked response to clicks is highly correlated with the background electroencephalogram. However, the response during the emergent low-voltage "dreaming" stage is different from that seen during the low voltage phase at the beginning of sleep. The results provide additional evidence that the emergent low-voltage stage is a neurophysiologically unique phase.—*Journal abstract.*

SENSORY PHYSIOLOGY

6258. Bartley, S. Howard, & Nelson, Thomas M. (Michigan State U.) **Some relations between sensory end results and neural activity in the optic pathway.** *J. Psychol.*, 1963, 55(1), 121-143.—Approaches to the study of visual sensation, especially brightness and flicker-fusion discrimination, are critically examined. The authors suggest that true explanation of a sensory phenomenon must describe an integrated sequence of physiological events starting with photochemical response to photic impingement and terminating with the cortical utilization of afferent input. Facts known about this process are organized using Bartley's "alternation of response theory" as a core.—*Author abstract.*

6259. Biersdorf, William R., & Granda, Allen M. (Walter Reed Army Inst. Research, Washington, D. C.) **Effects of stimulus duration upon spectral sensitivity of the human electroretinogram.** *J. Opt. Soc. Amer.*, 1962, 52(12), 1402-1406.—The effects of 3 stimulus durations on spectral sensitivity of the electroretinogram were examined under moderate light adaptation. The durations were 11, 42, and 109 msec. At a low criterion amplitude of response, the 11-msec. duration showed lower sensitivity in the green and blue regions of the spectrum than the 2 longer durations. At the red end of the spectrum all curves showed elevated sensitivity of approximately equal amounts. For a moderate criterion amplitude, the curves for the various durations retained their relative positions at the shorter wavelengths. At the red end of the spectrum, sensitivity decreased for all durations, but to a greater amount for the 2 longer durations. For a high criterion response, the 11-msec. duration became more sensitive throughout the spectrum; however, it retained a form similar to that for the 2 longer durations. The curves were presumed to include at least 2 components: a scotopic process and a red-sensitive process. Possible interpretations of the duration effects on the spectral curves included the Bunsen-Roscoe law and the summation of on- and off-responses.—*Journal abstract.*

6260. Brindley, G. S. (U. Cambridge, England) **Beats produced by simultaneous stimulation of the human eye with intermittent light and intermittent or alternating current.** *J. Physiol., London*, 1962, 164, 157-167.—Visible beats occur when light

frequency is 5-120 cps and electric current frequency differs by about 1 cps. The upper limit of light frequency to produce beats exceeds the flicker fusion frequency for comparable conditions, and that for electric current greatly exceeds the highest frequency which produces light or flicker in the unilluminated eye. Maximum interaction is obtained when the light precedes the electric current by 1-9 msec. "Photopic flicker fusion frequency is not limited simply by the photochemical mechanism of the cones or simply by the neural pathways of vision, but by attenuation of high frequencies in both these places in succession."—*D. R. Peryam.*

6261. Catton, W. T. (U. Durham, Newcastle-upon-Tyne, England) The effects of subliminal stimulation on the suitability of frog skin tactile receptors. *J. Physiol., London*, 1962, 164, 90-102.—Stimuli were brief (2-100 msec.) mechanical and electrical test pulses. A short stimulus caused first a sharp fall of threshold lasting 2-3 msec. followed by a period of subnormality up to 20 msec. Mechanical stimuli exceeding about 10 msec. duration gave transient excitability changes and enhanced excitability during the stimulus. Long electrical pulses produced changes resembling the familiar electronic effects in peripheral nerve. Cathodal stimuli simulated the effects of mechanical stimuli. Possible tactile receptor potential properties are discussed in connection with the known potentials of other mechanoreceptors.—*D. R. Peryam.*

6262. Clausen, Johs., & Karrer, Rathe. (Training School Vineland, N. J.) Comparison of phosphene threshold to various visual functions and to electrical sensitivity of the skin. *J. Psychol.*, 1963, 55(1), 91-99.—To verify that electrical and photic stimulation of the eye involve different processes, phosphene thresholds for 20 and 50 cps sine waves were correlated to absolute threshold for light, brightness discrimination, CFF, and phi phenomenon for 14 normal adult Ss. As expected, no significant correlations were found. Phosphene thresholds were also correlated with electrical cutaneous thresholds of the forearm, in an attempt to investigate the possibility that phosphene threshold is a general indicator of neural excitability. Again, no significant correlations were found, but because of the instability of the cutaneous threshold, this finding may not be reliable.—*Author abstract.*

6263. Evans, David R., & Mellon, DeForest, Jr. (Johns Hopkins U.) Stimulation of a primary taste receptor by salts. *J. gen. Physiol.*, 1962, 45, (4, Pt. 1), 651-661.—The repetitive response of the salt receptor cell of the blowfly taste receptor was studied quantitatively. Stimuli were salt solutions contained in the recording electrode which was placed over the tip of a sensory hair. Response begins at a high frequency and quickly declines to a steady frequency. The initial response was a sigmoid function of the log of stimulus intensity over a short range of intensities. Evidence is given that the salt-combining sites are anionic and strongly acidic and that the cation of a salt dominates stimulation.—*D. R. Peryam.*

6264. Halpern, Bruce P., Bernard, Rudy A., & Kare, Morely R. (Cornell U.) Amino acids as gustatory stimuli in the rat. *J. gen. Physiol.*, 1962, 45(4, Pt. 1), 681-701.—Neural activity in the intact chorda tympani, measured with an electronic sum-

mator, increased when amino acid solutions 0.01 moles per liter or above passed over the tongue. Order of response magnitude is given for a number of amino acids. Maximum response developed in 1-3 minutes and was followed by a sustained depression of response to NaCl. Amino acids vs. water preferences were investigated, and effects are discussed. It is concluded that glycine and analine receptor effects differ from those of NaCl but that all may affect a common site. Prior exposure to amino acids may modify subsequent neural and behavioral responses.—*D. R. Peryam.*

6265. Harrison, J. M., Warr, W. B., & Irving, R. E. Second order neurons in the acoustic nerve. *Science*, 1962, 138(Whole No. 3543), 893-895.—In silver-stained preparations of the rat auditory system large neurons were distributed over the whole length of the acoustic nerve. These neurons received many synaptic endings which arose from collaterals of the acoustic fibers. The axons of the neurons ascended toward the cochlear nuclei. Similar neurons were found in the mouse, but not in the bat or cat.—*Journal abstract.*

6266. Hawkes, Glenn R. (USA Medical Research Lab., Ft. Knox, Ky.) Effect of skin temperature on absolute threshold for electrical current. *J. appl. Physiol.*, 1962, 17, 110-112.—Maximal cutaneous sensitivity for pressure or mechanical vibration occurs at about 36° C. and shifting in either direction raises the RL. In the present study, raising skin temperature of finger or forearm even to 45° C. had no effect on the RL for electrical stimulation. "It is concluded that the dependence of sensitivity to pressure or mechanical vibration on skin temperature is a peripheral effect." The electrical current apparently affects nerves directly without transduction by any process at the receptor.—*D. R. Peryam.*

6267. Simmons, F. Blair, & Beatty, Dana L. (Stanford U.) A theory of middle ear muscle function at moderate sound levels. *Science*, 1962, 138(Whole No. 3540), 590-591.—The minor amplitude modulations of auditory input, which are introduced by the middle ear muscle acoustic reflex at moderate and low sound intensities in the cat, may contribute significantly to signal analysis or attention mechanisms of the auditory system.—*Journal abstract.*

ENDOCRINE, BIOCHEMICAL, & CIRCULATORY EFFECTS

6268. Amiragova, M. G. (Inst. Normal & Pathological Physiology, Acad. Medical Sciences, USSR) Rol' retikulyarnoi formatsii mozgovogo stvola v peredache vliyanii tsentral'noi nervnoi sistemy na schitovidnuyu zhelezu. [The role of the reticular formation of the brain stem in the transfer of influence of the central nervous system on the thyroid gland.] *Dokl. Akad. Nauk SSSR*, 1962, 147(1), 252-254.—This study investigated the effect of amazin on the thyroid gland of dogs. The activity of the thyroid gland was indexed by change of content of radioactive iodine. The dosage of iodine was 0.5 μ Cu/Kg of weight and amazin was 1-1.5 mg. Kg of weight introduced 40-60 min. before beginning of the experiment. A conditioned motor response to a metrinome with UCS as electric shock was elaborated to assay the functional state of the nervous system. The thyroid gland separates out the iodine in response to stimulation by the UCS. This reaction reaches a

maximum 1.5-2 hr. after the termination of the shock and in about 3-3.5 hr. the gland is back to normal. Amazin had no effect on the functioning of the thyroid gland in the normal life of the animal. However, under the influence of amazin the CR activity disappeared completely or was greatly reduced although the response to the UCS was preserved. It is concluded that the reticular formation plays an important role in the regulation of the thyroid gland by the CNS.—H. Pick.

6269. Briggs, Michael H., & Kitto, G. Barrie. The molecular basis of memory and learning. *Psychol. Rev.*, 1962, 69(6), 537-541.—The "nucleotide rearrangement hypothesis of memory postulates undemonstrated properties of nucleic acids that seem incompatible with current knowledge, while the hypothesis fails to give any satisfactory account of how RNA-stored information could influence the nervous mechanisms of memory. The experimental evidence produced in favor of this hypothesis is equally compatible with the hypothesis that memory is basically dependent upon neurone pathways maintained by high levels of transmitter substances due to induced biosynthetic enzymes."—C. T. Morgan.

6270. Corah, Norman L., & Stern, John A. (Washington U. School Medicine) Stability and adaptation of some measures of electrodermal activity in children. *J. exp. Psychol.*, 1963, 65(1), 80-85.—Measures of electrodermal activity in children, skin resistance levels, and spontaneous fluctuations, made during rest and during tone stimulation were related to each other and to the conditions under which they were obtained. The results indicate that the resting measures are fairly reliable over time although they both showed the effects of adaptation, and they are influenced by the amount and type of prior activity. These measures showed significant but low relationships with each other. Orienting responses to tone stimulation tended to show the effects of adaptation from stimulation in a previous session.—*Journal abstract.*

6271. England, Samuel J. M., & Pasamanick, Benjamin. (Columbus Psychiatric Inst. & Hosp.) A discussion of chronogeometry as related to non-stationary time series such as the physiological electrogram. *J. Psychol.*, 1962, 54(2), 453-465.—Electrogram traces of repetitive physiological phenomena, as for example heartbeat and respiration, may be recorded one above the other. A logical basis for this method is discussed and its possible usefulness in the analysis of physiological time series is illustrated. The theory of objects is suggested as finding application in this method of examining the physiological time series. The concept of rigid time-systems is advanced as having similarities in analysis to that of rigid bodies of classical physical theory.—*Author abstract.*

6272. Fisher, A. E., & Coury, J. N. Cholinergic tracing of a central neural circuit underlying the thirst drive. *Science*, 1962, 138(Whole No. 3541), 691-693.—Cholinergic stimulation of any of a number of interrelated limbic and diencephalic structures in the rat elicits a rapid and marked increase in water intake. We postulate that a generalized Papez circuit is specifically and functionally sensitive to cholinergic action, and that other primary drives depend on

closely parallel neural circuits partitioned both structurally and biochemically.—*Journal abstract.*

6273. Gerall, Arnold A. (U. Kansas) The effect of prenatal and postnatal injections of testosterone propionate on prepubertal male guinea pig sexual behavior. *J. comp. physiol. Psychol.*, 1963, 56(1), 92-95.—An attempt was made to induce sexual precocity in male guinea pigs by prenatal and postnatal injections of testosterone propionate. Experimental groups were: (a) oil injected controls, (b) injected daily postnatally with testosterone propionate, (c) treated by injecting mothers from the 10th day of pregnancy until parturition with testosterone propionate, (d) both pre- and postnatally treated. 3 or 4 mating tests were given each week to 27 Ss starting 9-12 days after birth and to 9 Ss starting 20 days after birth. Postnatally treated Ss exhibited intromission and ejaculation 3-6 days earlier and mounting approximately 15 days earlier than oil injected controls. Prenatal administration of testosterone propionate alone did not advance the appearance of sexual responses. Less sexual precocity was produced than is reported for androgen-treated rats.—*Journal abstract.*

6274. Moyer, K. E., & Moshein, Peter. (Carnegie Inst. Technology) Effect of adrenalectomy on the attenuation of a conditioned avoidance response by ECS in the rat. *J. comp. physiol. Psychol.*, 1963, 56(1), 163-166.—Hypothesis: Adrenal glands are essential for ECS to attenuate a conditioned avoidance response. 60 rats were divided into 3 groups of 20 each: bilateral adrenalectomy, sham-operated, control. Each of these was divided into ECS and pseudo-ECS. After surgery each S was trained in a shuttle alley to a criterion of 20 consecutive avoidances. Ss were then given either 21 ECS or pseudo-ECS treatments over 11 days. The dependent variable was the number of avoidances made on a test day 24 hr. after the last ECS of pseudo-ECS treatment. The results showed that ECS significantly attenuated the conditioned avoidance response in intact, sham-operated, and adrenalectomized rats. It was concluded that the adrenals are not necessary for ECS to attenuate an avoidance response.—*Journal abstract.*

6275. Rodionov, I. M. (Inst. Therapeutics, Moscow) Sosudorasshiritel'nye reaktzii, voznikayushchie pri razlichnykh sostoyaniyakh sosudistoĭ periferii. [Vasodilatation responses occurring during different conditions of the peripheral vessels.] *Fiziol. Zh. SSSR*, 1962, 48(11), 1342-1349.—Body temperatures of cats were lowered to 33°-28° C. In this condition of hypothermia, stimulation of the animal produced peripheral vasodilatation, instead of the usual vasoconstriction. Vasodilatation did not occur, however, after injection of atropine. Injection of dihydroergotamine, a vasoconstrictor, did not block the vasodilatation. The presumed neural bases underlying the change in character of the vasomotor response are discussed.—D. G. McDonald.

6276. Severová, M. (Charles U. Prague, Czechoslovakia) Změny základní kožní vodivosti při reprodukci situací a činností. [Changes in the basic skin conductance while reproducing situations and activities.] *Českoslov. Psychol.*, 1962, 6, 25-35.—Mean values of the basic skin conductance in various experimental situations show a gradual decline the

greater or lower the difference which corresponds to the complexity and psychological significance of experimental situations. Basic skin conductance is recommended as a method for controlling the activation level of Ss as a measure of significance or complexity of experimental situations and also as indicator of the process of adaptation to it. (Russian & English summaries)—*V. Břicháček*.

6277. Smith, C. E. Is memory a matter of enzyme induction? *Science*, 1962, 138 (Whole No. 3543), 889.—Variations in cholinesterase and RNA concentrations and in levels of neural activity have been linked to learning. These 3 groups of experimental evidence suggest that the basis of memory lies in an increase of the concentrations of enzymes associated with transmitter substances, as a long-lasting effect of stimulation. Biological precedent exists in microbial physiology.—*Journal abstract*.

6278. Stroebel, Charles Frederick. (U. Minnesota) Differential effects of adrenal demedullation on acquisition and extinction of a passive avoidance (punishment) and a conditioned emotional response in the albino rat. *Dissert. Abstr.*, 1962, 22(11), 4101.—*Abstract*.

6279. Van Derhoof, Ellen, & Clancy, John. (State U. Iowa) Peripheral blood flow as an indicator of emotional reaction. *J. appl. Physiol.*, 1962, 17, 67-70.—Flow was measured plethysmographically while Ss were exposed to varied stresses, including abreaction of some prior traumatic event and exposure to new stresses in both awake and hypnotic states. The former caused an increase in mean flow for all Ss. The initial response to new stresses was increased flow, but repetition of the stress extinguished the response. Results are interpreted in terms of personality functioning. It is concluded that peripheral blood flow is a sensitive indicator of emotional reactivity.—*D. R. Peryam*.

PSYCHOPHARMACOLOGY

6280. Bindra, Dalbir, & Mendelson, Joseph. (McGill U.) Training, drive level, and drug effects: A temporal analysis of their combined influence of behavior. *J. comp. physiol. Psychol.*, 1963, 56(1), 183-189.—Effects of these variables on 4 time measures describing the essential or relevant components of a water-reinforced lever-pressing response, as well as on the time spent in irrelevant activities (grooming, sniffing, and sitting) were studied in 44 rats. Chlorpromazine decreased response rate at the 2 higher levels of training but not at the lowest level; methylphenidate decreased rate at the 2 lower drive levels but not at the highest. The response decrements were associated with a decrease in the speed of the relevant components in the case of chlorpromazine, and with an increase in time spent in irrelevant activities in the case of methylphenidate. A tentative generalization about the basis of differential effects of stimulant and depressant drugs on behavior is suggested.—*Journal abstract*.

6281. Brown, Elliott Morton. (U. Connecticut) Spatial gradients of approach-avoidance conflict with a chlorpromazine parameter. *Dissert. Abstr.*, 1962, 22(8), 2881.—*Abstract*.

6282. Carpenter, John A., Moore, Omar K., Snyder, Charles R., & Lisansky, Edith S. Alcohol

and higher-order problem solving. *Quart. J. Stud. Alcohol*, 1961, 22(2), 183-222.—64 male medical students were trained in the calculus method, a mathematical logic, which was the experimental task. Problem solving efficiency then was studied in relation to varying dosages of alcohol (0.0, 0.33, 0.67, and 1.0 ml. of absolute alcohol per kg.). Analysis of variance on blood alcohol levels and 9 problem-solving measures revealed that efficiency was a curvilinear function of doses. A moderate amount of alcohol (the 0.33 ml. per kg. dose) was related to an increase in efficiency whereas the largest dose (the 1.0 ml. per kg. dose) proved quite detrimental to efficiency. Certain measures relevant to the approach taken to the solution of problems were complexly related to doses; and this matter is discussed.—*D. E. Walton*.

6283. Clarke, Margaret Mary Taylor. (Fordham U.) The effect of caffeine on absolute thresholds in pain and vision. *Dissert. Abstr.*, 1962, 22(11), 4092.—*Abstract*.

6284. Coll, José A. V., Cascarini, Silvia R., & Grinfield, Pablo E. GABA: un aminoácido-inhibidor. [GABA: an amino-acid-inhibitor.] *Acta psiquiat. psicol. Argent.*, 1962, 8(1), 50-53.—The mechanisms of action and metabolism of gamma-aminobutyric acid (GABA) are summarized.—*W. W. Meissner*.

6285. Colquhoun, W. P. Effets d'une faible dose d'alcool et de certains autres facteurs sur la performance dans une tâche de vigilance. [Effects of a small dosage of alcohol and other factors on the performance of a task requiring visual vigilance.] *Bull. Cent. Etud. Rech. Psychotech.*, 1962, 11(1), 27-44.—It was found that the time of day at which the test session was held and the temperamental characteristics of individual Ss influenced the detection efficiency. The effects of time of day persisted when task speed was varied under paced conditions of work. "The relationship between temperament and efficiency was undisturbed by a change in the difficulty of the discrimination required to detect a signal, or by an alteration in the speed of pacing (it was obscured, however, when the task was unpaced)." The practical importance of the findings for the organization of monitoring work is discussed.—*V. Sanua*.

6286. Evans, Wayne O. (USA Medical Research Lab., Ft. Knox, Ky.) The synergism of autonomic drugs on opiate or opioid-induced analgesia: A discussion of its potential utility and an annotated bibliography. *USA Med. Res. Lab. Rep.*, 1962, No. 554. ii, 26 p.—A diverse group of autonomically active drugs has been shown to potentiate an opiate-induced analgesia. Of these drugs, a d-amphetamine-opiate mixture offers an increase in analgetic effects of 60%-100%, while minimizing the side effects of the opiate. The potential of this combination for use when traumatic injury occurs in situations in which shock is a particular difficulty is discussed. An annotated bibliography is presented on the potentiation of opiate-induced analgesia by autonomic drugs.—*USA MRL*.

6287. Evans, Wayne O., & Caldwell, Lee S. (USA Medical Research Lab., Ft. Knox, Ky.) The effects of the potassium and magnesium salts of dl-aspartic acid on human fatigue and recovery. *USA Med. Res. Lab. Rep.*, 1962, No. 550. ii, 5 p.—The magnesium and potassium salts of dl-aspartic

acid were tested for anti-fatigue effects on highly motivated human Ss using an arm dynamometer. No change in either initial performance or performance after a 5-hour rest could be attributed to drug action. However, all Ss stated that they felt better after aspartates as compared with placebos.—*USA MRL*.

6288. Fiddleman, Paul Barry. (U. North Carolina) The prediction of behavior under lysergic acid diethylamide (LSD). *Dissert. Abstr.*, 1962, 22 (8), 2873-2874.—*Abstract*.

6289. Hearst, Eliot, & Whalen, Richard E. (National Inst. Mental Health, Washington, D. C.) Facilitating effects of D-amphetamine on discriminated-avoidance performance. *J. comp. physiol. Psychol.*, 1963, 56(1), 124-128.—Effects of elimination of the opportunity to escape and pretreatment with 3 mg/kg of d-amphetamine were separately examined in rats which exhibited relatively poor performance in a discriminated avoidance-escape situation. Removal of escape opportunity led to marked deterioration in avoidance performance, which could be reversed by reinstatement of the escape contingency. Administration of d-amphetamine brought about a significant improvement in avoidance performance without affecting lever responding in non-CS periods. D-amphetamine was also found not to affect responding to exteroceptive stimuli that had not previously been correlated with shock. An interpretation which emphasizes breakup of CS-induced freezing patterns by d-amphetamine appears the most logical of several possible explanations for the drug's effects.—*Journal abstract*.

6290. Herrnstein, R. J. (Harvard U.) Placebo effect in the rat. *Science*, 1962, 138(Whole No. 3541), 677-678.—Scopolamine hydrobromide disrupts the learned behavior of rats in a predictable manner. Physiological saline mimics to some extent the effect of the drug when the 2 substances are alternately administered in a series of injections. This placebo effect appears to be an instance of simple Pavlovian conditioning.—*Journal abstract*.

6291. Hughes, Francis W., Forney, Robert B., & Gates, Paul W. (Indiana U. School Medicine) Performance in human subjects under delayed auditory feedback after alcohol, a tranquilizer (benzquinamide) or benzquinamide-alcohol combination. *J. Psychol.*, 1963, 55(1), 25-32.—A delayed auditory return system was utilized to induce anxiety in 16 volunteers. 9 verbal tests were performed, recorded and graded. Each S performed the series of tests on 4 occasions. He had the following 4 treatments: (a) benzquinamide plus alcohol, (b) placebo drug plus alcohol, (c) benzquinamide plus placebo alcohol, and (d) placebo drug plus placebo alcohol. It was found that benzquinamide increased performance while under this self-induced anxiety stimulus, alcohol effected a deficiency in performance in low concentrations and synergism of this tranquilizer and alcohol was not evident. This method is suggested for the quantitative evaluation of tranquilizers in humans as well as the estimation of synergistic action of alcohol on tranquilizers.—*Author abstract*.

6292. Lester, David. (Yale U.) Self-maintenance of intoxication. *Quart. J. Stud. Alcohol*, 1961, 22(2), 223-231.—In some studies utilizing 9

rats it was shown that drinking of a 5.6% alcohol solution could be maintained, and that the attendant behavior appeared compulsive in character. 1 rat maintained itself at blood alcohol levels of 0.11 to 0.19% for a period of 70 hours. The method offers "a simple approach to the study of the development of metabolic and functional tolerance for alcohol and other effects of prolonged intoxication, such as the withdrawal syndrome."—*D. E. Walton*.

6293. Pawlowski, A. A., Denenberg, V. H., & Zarrow, M. X. (Purdue U.) Prolonged alcohol consumption in the rat: II. Acquisition and extinction of an escape response. *Quart. J. Stud. Alcohol*, 1961, 22(2), 232-240.—The effects of prolonged alcohol consumption in rats was studied in terms of the acquisition and extinction of a learned escape response using shock reinforcement. The alcohol and control groups were similar in the rate of learning and relearning. Alcohol treated rats showed a reduction in the strength of learned fear responses as manifested by significantly longer running times during the performance phase and by a more rapid extinction of the escape route. "These findings are in complete opposition to previously reported data on the effects of prolonged alcohol consumption upon a barpressing response using food reward . . . thereby demonstrating a major interplay between prolonged alcohol consumption and the nature of the reinforcement employed."—*D. E. Walton*.

6294. Rinkel, Max. (Ed.) Specific and non-specific factors in psychopharmacology. New York: Philosophical Library, 1963. 174 p. \$3.75.—Proceedings of a symposium held at the 3rd World Congress of Psychiatry in Montreal, Canada, June 4-10, 1961. The major paper in this volume is "Some Specific Effects of Psychoactive Drugs" by Harold E. Himwich. Other papers are: A Quantitative Approach to Psychopharmacology" (H. K. Beecher), "Test Score Instability: A Source of Error in Individual Drug Response" (D. A. Knight), "Relation of Drug-Induced Changes to Personality" (L. La-sagna), "Personality and Drugs: 'Specific' and 'Non-Specific' Influences on Drug Actions" (A. DiMascio & Rinkel), "Variables and Drug Effectiveness" (S. Malitz), "Non-Drug Parameters of Psychopharmacology: The Role of the Physician" (P. E. Feldman), and "Individual Animal Variation in the Effects of Pentobarbital and Dextro-Amphetamine: A Comparison" (C. Kornetsky, J. Dawson, & E. Pelikan). There are discussions by H. Hoaglund and H. Kulver.—*C. T. Morgan*.

6295. Schmidt, H., Jr., & Dry, L. (Washington U. School Medicine) Comparison of phenobarbital and pentobarbital actions upon water ingestion. *J. comp. physiol. Psychol.*, 1963, 56(1), 179-182.—Differences in magnitude of facilitation of drinking by drugs suggested they have differing actions. To confirm this hypothesis, 18 rats in water balance were injected with phenobarbital, pentobarbital, or control solution ½ hr. before being given hypertonic saline to induce drinking. They were allowed to drink immediately. Phenobarbital reduced response latency and increased drinking; pentobarbital had no effect upon either measure. The Ss were then given pentobarbital or the control solution 5 hr. after saline administration and ½ hr. before having access to water. Pentobarbital then increased drinking well above con-

trol level. Conclusions are: (a) phenobarbital and pentobarbital differ in their action upon water ingestion; (b) phenobarbital, despite reduction of response latency, is not an adequate stimulus for drinking; (c) delay between saline administration and drinking introduces some condition not immediately elicited but not reflected in the volume ingested by comparable controls.—*Journal abstract.*

6296. Solomon, Richard L., & Turner, Lucille H. Discriminative classical conditioning in dogs paralyzed by curare can later control discriminative avoidance responses in the normal state. *Psychol. Rev.*, 1962, 69(3), 202-218.—“Dogs were trained to avoid shock in response to a signal. . . . After the dogs were reliably pressing the panel in response to the signal, with response latencies of 3 seconds or shorter, they were totally paralyzed by curarization. While the dogs were thus completely immobilized under curare, a Pavlovian discriminative conditioning session was carried out. . . . After this conditioning session, the dogs were given 48 hours in which to recover from the various physiological side effects of curarization. Next they were returned to the training situation in the normal, undrugged state, and the three previously used stimuli (S^0 , S^+ , and S^-) were presented. . . . The dogs responded in a way consistent with their discriminative Pavlovian conditioning experience under curare. . . . This experiment demonstrates that certain types of transfer of training or problem solving can occur without the benefit of mediation by peripheral skeletal responses or their associated feedback mechanisms.”—C. T. Morgan.

6297. Thompson, Travis Irving. (U. Minnesota) The effect of two phenothiazines and a barbiturate on extinction-induced rate increase of a free operant. *Dissert. Abstr.*, 1962, 22(8), 2889.—*Abstract.*

ENVIRONMENTAL EFFECTS

6298. Davis, T. R. A. (USA Medical Research Lab., Ft. Knox, Ky.) Effect of heat acclimatization on artificial and natural cold acclimatization in man. *J. appl. Physiol.*, 1962, 17, 751-753.—Seasonal changes in oxygen consumption, rectal temperature, and skin temperature in response to 1-hr. exposure to 14.1 C. were measured monthly between October and February for 6 Ss, and for another group nude-exposed in a chamber 8 hr. daily at 13.5 C. Shivering and heat production decreased significantly in both groups. Skin and rectal temperatures fell for the chamber group but not for the seasonal group. Then both groups were subjected to 21 days of heat acclimatization followed by another cold-response measurement. The changes induced by the original exposure were not influenced by heat exposure in either group.—D. R. Peryam.

6299. Essman, Walter B., & Sudak, Frederick N. (Albert Einstein Coll. Medicine, N. Y.) Effect of body temperature reduction on response acquisition in mice. *J. appl. Physiol.*, 1962, 17, 113-116.—“In four experiments . . . mice were treated with either 2, 4-dichlorophenoxyacetic acid or saline in combination with cold exposure. In a four-trial water-escape problem, normothermic animals acquired the response but hypothermic mice did not show learning. A temperature-dependent relationship to learning was demonstrated.”—D. R. Peryam.

6300. LeBlanc, Jaques. (Laval U., Quebec City, Canada) Local adaptation to cold of Gaspé fishermen. *J. appl. Physiol.*, 1962, 17, 950-952.—Gaspé fishermen have a general adaptation to cold, as shown by the fact that immersion of the hands and feet in ice water gave lower pressor responses than for a control group. This adaptation is maintained throughout the year. Immersion of the hands in hot water revealed no difference between fishermen and controls. Thermoreceptors, hypothalamus, cortex, and effector organs are suggested as sites of the adaptation.—D. R. Peryam.

6301. Sudak, Frederick N., & Essman, Walter B. (Albert Einstein Coll. Medicine) Maze acquisition and retention in hypothermic mice. *J. appl. Physiol.*, 1962, 17, 747-750.—Animals made hypothermic (about 3.3 C. colonic) by treatment with 2,4-dichlorophenoxyacetic acid and exposure to cold air (2.0 C.) did not acquire a simple escape response from a water maze in 10 trials, as compared with 4 trials for saline-treated controls. Retention was a function of acquisition during training. Retention and performance were not affected by a comparable reduction in colonic temperature.—D. R. Peryam.

Radiation

6302. McDowell, A. A., & Brown, W. Lynn. (U. Texas) Sex and radiation as factors in learning performance by rhesus monkeys on a series of dot discrimination problems. *J. genet. Psychol.*, 1962, 101(2), 273-278.—40 male and 24 female rhesus monkeys, ranging in age from 36 to 48 months, with previous exposure to varying dosages of nuclear radiation, were tested on a series of 5 dot-discrimination problems presented in order of decreasing size of the dot. Statistical analysis of the error data, using a nonorthogonal analysis of variance design, yielded the following results: (a) errors increased significantly as the diameter of the black dot was decreased, (b) the radiation by problems interaction was significant as a reflection of the fact that the higher the relative radiation dosage the fewer the errors as the diameter of the black dot decreased beyond the 3rd problem, and (c) the sex by problems interaction was significant with the increases in errors on problems 4 and 5 being greater for the male Ss than for the female Ss.—*Author abstract.*

Stress

NUTRITION

6303. Brozek, Josef. (Lehigh U., Bethlehem, Pa.) Soviet studies on nutrition and higher nervous activity. *Ann. N. Y. Acad. Sci.*, 1962, 93, 665-714.—A critical review of Soviet studies on the relations among conditioned responses, nutritional status, and higher nervous system function. Methodological problems include too great reliance on CR techniques and animal experimentation. Soviet and American studies on chronic and acute semistarvation and on Vitamin A are contrasted. Vitamin B complex constituents deficiencies produce increased inhibition, but effects seem related to the type of nervous system. Cortical excitability correlates positively with protein intake. The effects of a variety of amino acids and other diet-related factors are considered. The relation of nutrition to neural biochemistry is also noted. (96 ref.)—B. S. Aaronson.

6304. Louttit, Richard Talcott. (U. Michigan) Effect of phenylalanine and marplan feeding on brain serotonin and learning behavior in the rat. *Dissert. Abstr.*, 1962, 22(7), 2479-2480.—Abstract.

6305. Sinha, S. N. (Patna, India) Metabolic deficiency and behaviour pathology. *Indian J. Psychol.*, 1962, 37(1), 17-22.—This is a review of selected studies concerning food deprivation and dietary deficiency on behavior. The 8 references cited were published during 1936-48.—J. T. Cowles.

GENETICS & BEHAVIOR

6306. Luria, A. R. (Moscow, USSR) Ob izmenchivosti psikhicheskikh funktsii v protsesse razvitiya rebenka: Na materiale sravnitel'noe issledovaniya bliznetsov. [On the variability of mental functions in the process of the development of a child: On material from a comparative investigation of twins.] *Vop. Psikhol.*, 1962, No. 3, 15-22.—A method of comparison of identical and fraternal twins is advocated for evaluation of the relative contribution of heredity and environment. Data on physical characteristics gathered by another investigator are compared with data on memory processes gathered by the present investigator. The physical indices and indices of immediate visual memory show a greater degree of variability for the fraternal twins than for the identical. This difference is not dependent on the age of the twins. However, indices of immediate verbal memory and mediated verbal memory show larger initial variability between fraternal than identical twins but this difference decreases with the age of the twins. These results are interpreted as showing the influence of environment on complex functions in contrast to elementary functions.—H. Pick.

6307. Mogensen, Alan, & Juel-Nielsen, Niels. (Aarhus State Hosp., Risskov, Denmark) Factors influencing preference rankings in a special picture test and in Lüscher's colour test: A study of uniovular twins brought up apart. *Acta psychiat. Scand.*, 1962, 38(3), 208-212.—"The preference rankings of items in an experimental picture test and in Lüscher's colour test were investigated for eight pairs of uniovular twins brought up apart. The problem of finding an adequate 0-hypothesis for the non-rectangular probability distributions of the items is discussed; the solution offered to this problem is a systematic matching of all subjects versus all other subjects and ranking the degree of similarity in choice of the twin pairs with pairs derived from the total matching.—R. Kaelbling.

6308. Porter, Ian H., Schulze, Jane, & McKusick, Victor A. (Johns Hopkins U. Hosp.) Genetical linkage between the loci for glucose-6-phosphate dehydrogenase deficiency and colour-blindness in American Negroes. *Ann. hum. Genet.*, 1962, 26(2), 107-122.—By testing with the Ishihara plates in 10 schools, 106 unrelated color blind Negro boys were located. These 106 and their brothers were screened for G-6-PD deficiency by Motulsky's dye method. 15 boys with enzyme deficiency were detected in 10 families. The type and degree of color blindness and the enzyme activity were studied with more accurate methods in members of 8 of these families. To obtain linkage information on the relatively scant data available, the method of Haldane and Smith was used. The odds were 1000 to 1 in

favor of linkage between deutan anomalous vision and G-6-PD deficiency but no evidence was found for linkage between protan anomalous vision and G-6-PD deficiency.—S. G. Vandenberg.

LATERAL DOMINANCE

ANIMAL PSYCHOLOGY

6309. Kling, Arthur, & Orbach, J. (Michael Reese Hosp., Chicago, Ill.) The stump-tailed macaque: A promising laboratory primate. *Science*, 1963, 139(Whole No. 3549), 45-46.—Members of *Macaca speciosa* have characteristics that make them suitable primates for neuropsychological investigation. They work well in discrimination training, have a varied behavioral repertoire and social interaction, and seem to be at least as intelligent as *Macaca mulatta*. They are docile and submit readily to laboratory routine.—Journal abstract.

6310. Miliutina, L. A. (Pirogov Medical Inst., Moscow, USSR) Razvitie nevroticheskogo sostoiianiia u bespolusharnykh golubei. [Development of a neurotic condition in decorticate pigeons.] *Zh. vyssh. nervn. Deiatel.*, 1962, 12(2), 349-353.—Repeated electrical stimulation was applied to the legs of 7 decorticate and 5 intact pigeons. After 80-100 stimulations a neurotic condition developed in decorticates manifested in an increased general activity, restlessness, drop in weight, and digestive disturbances. The condition was very stable and resulted in the pigeons' death. No similar condition developed in the controls.—A. Cuk.

6311. Smythe, R. H. Animal habits: The things animals do. Springfield, Ill.: Charles C Thomas, 1962. vii, 181 p. \$5.75.—The author's intent was "to describe the more common habits of a few animals"; however, as the jacket suggests, the book contains "an unbelievable wealth of animal lore." There are illustrated chapters on the locomotory, territorial, feeding, and social habits of creatures from insects to man, as well as a question and answer section covering some miscellaneous habits of animals commonly kept as pets (dog, cat, etc.). Many of the behaviors are discussed in terms of their evolution and relationship to the survival of the individual and the species. Author's approach to instinct versus intelligence is unusual as is his way of bringing man by analogy or implication into his discussions of bird-songs, the staking of territorial claims, and mate selection.—J. M. Havlena.

NATURAL OBSERVATION

6312. Cloudsley-Thompson, J. L. (U. Khar-toum) Rhythmic activity in animal physiology and behaviour. New York: Academic, 1962. 236 p. \$6.80.—Methodology, apparatus, and terms relevant to animal periodic phenomena are reviewed, but the emphasis is upon a comparative and experimental analysis. Rhythms of different wave-lengths (diurnal, lunar, tidal, and seasonal) are discussed in animals from protozoa to mammals. Evidence for biological clocks and their physiological basis is reviewed with respect to exogenous factors, including environment-dependent rhythms and environment-independent rhythms. Orientation, navigation, migration, activity, and other behavior involving timing mechanisms

are extensively treated. Theory plays a minor role; phenomena are principally discussed in terms of how variables produce effects. (500 ref.)—*R. B. Lockard.*

6313. Emlen, John T. (U. Wisconsin) **The display of the gorilla.** *Proc. Amer. Phil. Soc.*, 1962, 106, 516-519.—Besides a score of distinguishable vocalizations which may function for communication, the gorilla displays 4 marked kinds of behavior: (a) hooting, a soft cooing in successive pulses, not aggressive but alerting the group and other animals; (b) chest beating, audible a mile away, employed by males and females, adults and young, but most violently by the male leader; (c) the ground swat by the leader, who runs forward a few steps, swinging his arms and pitching sticks and leaves in the air, and then bringing his arms down with a loud thump on the ground, sometimes crushing a sapling; and (d) a barking roar by the leader when an intruder appears: (a), (b) and (c) occur repeatedly in that order as if to alert his group and perhaps to assert the leader's dominance.—*E. G. Boring.*

EARLY EXPERIENCE (INCLUDING IMPRINTING)

6314. Atkinson, Harriette Seely. (U. Colorado) **The effect of early experience upon hoarding and shock-escape behavior of the albino rat.** *Dissert. Abstr.*, 1962, 22(9), 3263-3264.—*Abstract.*

6315. D'Amato, M. R., & Jagoda, H. (New York U.) **Effect of early exposure to photic stimulation on brightness discrimination and exploratory behavior.** *J. genet. Psychol.*, 1962, 101(2), 267-271.—Albino and pigmented rats were raised in breeding cages under either control illumination conditions (very dim) or experimental conditions (moderately bright illumination). At 71-75 days of age some Ss were given exploratory experience in a brightly illuminated enclosed Y maze. Other Ss were trained on a simple brightness discrimination problem (bright positive) in the Y maze. The experimental variable was without effect on either the amount or pattern of exploratory behavior in the Y maze. Although, on the first 20 trials of discrimination training the experimental Ss made significantly more responses to the bright arm than the control Ss, indicating that the early experience with moderate illumination levels served to reduce negative phototropism, the control Ss achieved the discrimination criterion as fast as the experimental Ss.—*Author abstract.*

6316. Gottlieb, Gilbert. (Dorthea Dix Hosp., Raleigh, N. C.) **A naturalistic study of imprinting in wood ducklings (*Aix sponsa*).** *J. comp. physiol. Psychol.*, 1963, 56(1), 86-91.—Examination of the role of auditory stimulation in the imprinting process of a role-nesting species indicated that the Wood duck hen begins to vocalize in the nest 20-36 hr. prior to the exodus of her young. Rate and intensity of her call increase as time of exodus approaches. Ducklings instantaneously begin their departure from the nest when the hen calls from outside (below). The long period of exposure to the call of the hen prior to exodus allows the ducklings to become aurally imprinted while they are still in the nest. Thus, it becomes unnecessary to account for the ducklings' response by postulating an "innate perceptual mechanism."—*Journal abstract.*

6317. Knight, Walter Rea. (Pennsylvania State U.) **Early social experience, aggressive behavior, and social stress in laboratory rats.** *Dissert. Abstr.*, 1962, 22(7), 2479.—*Abstract.*

6318. Menzel, Emil W., Jr., Davenport, Richard K., Jr., & Rogers, Charles M. (Yerkes Lab. Primate Biology) **The effects of environmental restriction upon the chimpanzee's responsiveness to objects.** *J. comp. physiol. Psychol.*, 1963, 56(1), 78-85.—In sharp contrast to 2-yr.-old wild-born chimpanzees, similarly aged Ss raised in restricted environments were timid of objects, contacted them rarely, and spent most of their time in stereotyped self-directed activities. Restricted Ss raised in pairs were the most timid of all and dependent upon each other for adaptation to stimuli. A restricted group that had had special manipulatory experience surpassed other isolates in object-contact, but only in situations similar to rearing. A restricted group with special visual experience did not differ from maximally restricted Ss who had been reared for 21 mo. in bare gray cubicles. It was argued that restricted chimpanzees are retarded but potentially typical in their responsiveness to objects.—*Journal abstract.*

6319. Rice, Charles E. (Florida State U., Tallahassee) **Imprinting by force.** *Science*, 1962, 138 (Whole No. 3541), 680-681.—An experiment was performed to determine the effect on imprinting strength of forcing the following response during the critical period in chicks. Results of the procedures used indicate that although imprinting occurred with forced following, it was not as strong as it is when the following is voluntary.—*Journal abstract.*

REFLEXES & INSTINCTIVE BEHAVIOR

MOTIVATION & EMOTION

6320. Anderson, W. Dale, & Smith, Orville A., Jr. (U. Washington) **Taste and volume preferences for alcohol in *Macaca nemestrina*.** *J. comp. physiol. Psychol.*, 1963, 56(1), 144-149.—9 *Macaca nemestrina* monkeys trained to identify water and 5, 10, and 20% alcohols by the colors of the containers were tested under 0-, 24-, or 48-hr. fluid deprivation and tended to select water or 5% alcohol when very small quantities of all 4 fluids were presented simultaneously. Level of deprivation affected the consistency of this preference. In a 2nd series of experiments, preference was judged from volume intake in a 2-choice situation. Alcohol concentrations and deprivation levels were the same. Except for an increased consumption of 20% alcohol, the average results for the entire series were similar to those obtained by brief sampling. Position preferences affected the results more with the 2nd technique.—*Journal abstract.*

6321. Bell, F. R. (Royal Veterinary Coll., London, England) **Alkaline taste in goats assessed by the preference test technique.** *J. comp. physiol. Psychol.*, 1963, 56(1), 174-178.—Taste thresholds for sodium bicarbonate solutions have been obtained on 8 goats using the 2-choice preference technique. The thresholds for the alkaline solution are comparable to the taste thresholds already established in goats for the 4 classical taste modalities. When sodium bicarbonate is placed directly into the stomach, the normal marked preference for 1% sodium bicarbonate

is reversed to an almost complete aversion. Although the mechanism of this alteration in taste threshold has not been specifically investigated, it is suggested that it is probably central in origin. (15 ref.)—*Journal abstract.*

6322. Bernstein, Steven, & Mason, William A. (U. Wisconsin) The effects of age and stimulus conditions on the emotional responses of rhesus monkeys: Responses to complex stimuli. *J. genet. Psychol.*, 1962, 101(2), 279-298.—The responses of 47 young rhesus monkeys to 12 stimulus objects arranged in 3 levels of complexity were recorded. In all age groups the total emotion score increased as stimulus conditions grew more complex. Examination of individual response characteristics suggested the following trends. From birth to 3 months of age emotional behavior consists principally of vocalization and nondirected responses such as rocking, crouching, and sucking. Little use is made of the available floor space in withdrawing from a disturbing stimulus. Between 3 months and 2 years of age there is a rapid and progressive increase in the frequency of directed responses including barking, lip-smacking, drawing back the ears, and the fear grimace. Concurrent with these changes is an increased tendency to withdraw from a disturbing stimulus. These changes in the patterns of emotional responses are probably correlated in the native habitat with the waning of the primary mother-infant bond and the corresponding growth of filial independence.—*Author abstract.*

6323. Brown, Judson S., & Belloni, Marigold. (U. Florida) Performance as a function of deprivation time following periodic feeding in an isolated environment. *J. comp. physiol. Psychol.*, 1963, 56(1), 105-110.—An experiment was run to test the prediction that periodic feeding develops associations between drive stimuli and anticipatory drive-producing responses thereby producing a curvilinear relation between performance and deprivation time. Rats living in a sound-shielded room were fed at the same time of day for 35 days. 5 subgroups were tested in their cages under deprivations of 2, 12, 22, 35, and 46 hr. The response measure, frequency of depressions of the empty food troughs, showed a gradual rise from 2 to 22 hr. and beyond, but did not decline thereafter as predicted by the theory under test. Starting and running speed scores in a straight runway also failed to support the curvilinear hypothesis.—*Journal abstract.*

6324. Burrig, Richard G., & Kappauf, William E. (U. Illinois) Preference threshold of the white rat for sucrose. *J. comp. physiol. Psychol.*, 1963, 56(1), 171-173.—28 animals were given a series of 4-min. drinking tests in a 2-choice situation, sucrose solution vs. water. Each test was preceded by forced-sampling of both liquids. The concentration at which 75% of the group made more tongue contacts with the sucrose solution was taken as the preference threshold. This concentration was .32 gm/100 cc of solution. This determination provides a baseline useful for the planning and evaluation of studies designed to map various sucrose isohedons for the rat on the basis of observations in the same test situation.—*Journal abstract.*

6325. Carlson, Paul Verner. (Purdue U.) The development of emotional behavior as a function

of diadic mother-young relationships. *Dissert. Abstr.*, 1962, 22(7), 2461.—*Abstract.*

6326. Dorman, Layton Buxton. (U. Alabama) The relation between hunger and general activity in the neonatal rat. *Dissert. Abstr.*, 1962, 22(7), 2473.—*Abstract.*

6327. Jacobson, Martin; Beroza, Morton, & Yamamoto, Robert T. (Entomology Research Division, United States Dept. Agriculture, Beltsville, Md.) Isolation and identification of the sex attractant of the American cockroach. *Science*, 1963, 139(Whole No. 3549), 48-49.—The highly potent sex attractant of the female American cockroach, *Periplaneta americana* (L.), has been isolated in pure form and identified as 2,2-dimethyl-3-isopropylidene-cyclopropyl propionate. The hydrogenated form of the attractant has been synthesized.—*Journal abstract.*

6328. Kaplan, Stephen, & Kaplan, Rachel. (U. Michigan) Skin resistance recording in the unrestrained rat. *Science*, 1962, 138(Whole No. 3548), 1403-1404.—The level of basal skin resistance is proposed as a measure of motivation. It is relatively simple to obtain and can be measured concurrently with behavior of interest to the E. The technique described requires a grid floor, but the assessment procedure does not affect the organism's state because of the subthreshold measuring current that is needed. This method in no way restrains the rat and can therefore be used in an unlimited number of experimental situations.—*Journal abstract.*

6329. Kappauf, William E., Burrig, Richard G., & DeMarco, William (U. Illinois) Sucrose-quinine mixtures which are isohedonic for the rat. *J. comp. physiol. Psychol.*, 1963, 56(1), 138-143.—Sucrose-quinine isohedons re 1, 4, 16, and 40% sucrose were determined for the rat. Isohedonic mixtures were located by the up-and-down method using a group of 24 Ss. An interaction was found between sucrose concentration and quinine hydrochloride concentration in their joint determination of the acceptability of sucrose-quinine mixtures. High levels of quinine always contributed negatively to the acceptability of mixtures. Low levels of quinine made positive contributions to acceptability but did so only when the sucrose component of the mixture was of high concentration. (15 ref.)—*Journal abstract.*

6330. Kavanau, J. Lee. (U. California, Los Angeles) An improved method for deprivation of sleep. *J. appl. Physiol.*, 1962, 17, 375-377.—". . . deer mice have been kept awake for up to 23 hr./day by gentle means with a minimum of exertion. The technique does not lead to noticeable changes in temperament or to sustained weight loss." The equipment, consisting basically of a motor-driven 16-inch cylinder, is described in detail.—*D. R. Peryam.*

6331. Lachman, Sheldon J., & Brown, Carl R. (Wayne State U.) A method for investigating exploratory behavior in rats and some preliminary results. *Pap. Mich. Acad. Sci. Arts Lett.*, 1958, 43, 181-188.—A circular exploratory table, 14 ft. in diameter, marked into 6-in. squares numbered from 1 to 638, was enclosed by a white cloth conical canopy, above which an observation chamber was located. Cylindrical cages in which animals were separately housed could be inserted through the aperture in the table center and their outer walls could be raised or lowered (to begin and terminate trials)

via remote control. Continuous records of behavior during exploration were made. Protocols disclose early systematic exploration of the cage interior, immediate surroundings, and the exterior, followed on successive trials first by brief and later progressively longer excursions from the cage.—*S. J. Lachman*.

6332. Roth, Louis M. (Harvard U.) Hypersexual activity induced in females of the cockroach *Nauphoeta cinerea*. *Science*, 138 (Whole No. 3546), 1267-1269.—Corpora allata control mating in females principally by inducing feeding on the tergum of a displaying male. Mating induces an inhibitory nervous mechanism, the seat of which is posterior to the last abdominal ganglion, causing an immediate loss of receptivity by suppressing feeding behavior. After parturition, females may again be receptive. Transection of the nerve cord before or just after mating causes excessive sexual behavior. (18 ref.)—*Journal abstract*.

6333. Satinoff, Evelyn, & Stanley, Walter C. (U. Pennsylvania) Effect of stomach loading on sucking behavior in neonatal puppies. *J. comp. physiol. Psychol.*, 1963, 56(1), 66-68.—To determine whether the amount of milk in the stomach of a neonatal puppy has any effect on sucking behavior, 2 groups of 15 puppies each were matched for age, litter, weight, and sex and deprived from their mothers for 7½-9½ hr. when they were 1, 2, 3, 4, 5, or 11 days old. At the end of the deprivation period one group was stomach loaded with simulated bitch's milk, and pairs of Ss were placed with the dam and allowed to suck for 30 min. The unloaded Ss sucked for a statistically significantly longer time and gained statistically significantly more weight than their loaded partners. Inhibition of sucking by stomach fullness is present from the day of birth and does not depend on postnatal maturation.—*Journal abstract*.

6334. Springfield, Cecil Gene. (U. Denver) Feeding frustration and its influence on eating, body weight, and social competitive behavior for a food reward in the rat. *Dissert. Abstr.*, 1962, 22(11), 4087-4088.—*Abstract*.

SENSORY PROCESSES

6335. Behar, Isaac. (USA Medical Research Lab., Ft. Knox, Ky.) A method for scaling in infrahuman species: Time perception in monkeys. *USA Med. Res. Lab. Rep.*, 1962, No. 552. ii, 8 p.—A method of scaling in infrahuman species, which consists of introducing additional cue values on a dimension for which a conditional discrimination has been established, is described. This is illustrated with preliminary data on time perception in monkeys. A scaled function for auditory time, the "indifference point," and the just noticeable difference were obtained.—*USA MRL*.

6336. Crampton, George H. (USA Medical Research Lab., Ft. Knox, Ky.) Effects of visual experience on vestibular nystagmus habituation in the cat. *USA Med. Res. Lab. Rep.*, 1962, No. 547. i, 25 p.—Separate groups of 10 cats each were exposed to 3 specific varieties of visual experience during a series of angular accelerations, and then compared on a test trial in darkness to 3 control groups of 10 cats each that had received the same acceleration experience but without concomitant

visual stimulation. Animals were maintained in a high state of arousal with d-amphetamine. Electro-oculographic recordings showed that the nystagmic response decrement was prominent for all 6 groups and that the visual experience neither hastened nor slowed the habituation process (27 ref.)—*USA MRL*.

6337. Miller, Knox Emerson. (Florida State U.) Early dark adaptation in *limulus polyphemus*. *Dissert. Abstr.*, 1962, 22(8), 2886.—*Abstract*.

6338. Rice, Charles E., & Kenshalo, D. R. (Florida State U.) Nociceptive threshold measurements in the cat. *J. appl. Physiol.*, 1962, 17(6), 1009-1012.—The minimum duration of thermal radiation that would consistently evoke a leg-lift response to turn off the radiation source was taken as the noxious threshold. The mean calculated skin temperature at threshold for 5 cats was 52.6 ± 0.35 C., as compared to 44.5 ± 0.13 C. for humans under comparable conditions.—*D. R. Peryam*.

6339. Semenoff, William Alex. (Washington State U.) Auditory acuity of man and monkey. *Dissert. Abstr.*, 1962, 22(11), 4100-4101.—*Abstract*.

LEARNING

6340. Bosworth, Lanis Loy. (U. Texas) A study of classical and instrumental inhibition as a function of the press of stimuli in support of a unified theory of the learning process. *Dissert. Abstr.*, 1962, 22(10), 3733.—*Abstract*.

6341. Dabrowska, J. (Nencki Inst. Experimental Biology, Warsaw, Poland) An analysis of the behaviour of a white rat during incomplete relearning. *Acta Biol. exp., Warsaw*, 1959, 19, 123-135.—A maze (see 37: 6342) was used. "During incomplete relearning the animal learns the features common to all tasks in a given sequence. Incomplete relearning essentially modifies the curve of learning in subsequent complete relearning. During incomplete relearning the animal acquires the ability of actively avoiding such doors as were unlocked on the preceding day. Incomplete relearning facilitates the animal's switching over to a new task."—*C. T. Morgan*.

6342. Dabrowska, J. (Nencki Inst. Experimental Biology, Warsaw, Poland) Kinaesthetic tasks in relearning albino rats. *Acta Biol. exp., Warsaw*, 1959, 19, 105-120.—A straight maze having 4 transverse partitions with 4 doors in each partition was employed. 55 rats learned 1 path in a criterion of 6 errorless trials. Thereupon, the path was changed (new task). Up to 20 successive tasks were run—fewer with some groups. "Successive learning of 20 tasks of the same type improves learning in rats." (24 ref.)—*C. T. Morgan*.

6343. Follettie, Joseph Frank. (Tulane U.) Runway performance as a function of degree of homogeneity of the intertrial interval. *Dissert. Abstr.*, 1962, 22(10), 3745-3746.—*Abstract*.

6344. Hill, Winfred F., Spear, Norman E., & Clayton, Keith N. (Northwestern U.) T maze reversal learning after several different overtraining procedures. *J. exp. Psychol.*, 1962, 64(5), 533-540.—A comparison of T maze reversal learning by 4 groups of rats that received different patterns of overtraining in acquisition failed to replicate pre-

vious findings of faster reversal after overtraining. 2 experiments were run to replicate the earlier findings but both revealed no overlearning-reversal effect. "These results appear to be consistent with interpretations in terms of stimulus satiation or of avoidance of nonrewarded cues, but not with interpretations in terms of observing responses, discriminability or frustration.—J. Arbit.

6345. Isaacson, Robert I., Karoly, Andrew J., & Caldwell, Jay S. (U. Michigan) **Alternation phenomena in a cross-maze exploration by rats.** *Pap. Mich. Acad. Sci. Arts Lett.*, 1957, 42, 271-279.—"Four groups involving a total of 54 experimentally naive male and female rats . . . approximately three months old" were run on an elevated + maze (elevated cross maze), any arm of which could be isolated from the rest of the maze by a guillotine door. "Our hypothesis is that if an animal has become acquainted with a maze and then a change is made in components of the maze, the animal will spend time exploring the new component. The animal will be attempting to learn the relationship of this new component to the previously learned maze." This "experiment . . . gives at least indirect support to those theories that postulate curiosity, exploration, or approach to the contextually novel as a general principle of behavior."—S. J. Lachman.

6346. Jacobson, Allan L. (U. Michigan) **Learning in flatworms and annelids.** *Psychol. Bull.*, 1963, 60(1), 74-94.—This article attempts an exhaustive review of the research purporting to demonstrate behavioral modifications in earthworms, planaria, and related organisms. Studies are grouped first according to phylum, and for each of the phyla considered according to certain subcategories of learning: habituation, classical conditioning, instrumental learning, and variability. Examination of the literature reveals that whereas earlier work was often ill-controlled, more recent research has for the most part been rigorous and convincing. It is concluded that learning and related phenomena have indeed been demonstrated clearly in each of these 2 phyla, and that research on these animals provides a promising means of investigating the "molecular" basis of learning. (74 ref.)—*Journal abstract.*

6347. Lukaszewska, I. (Nencki Inst. Experimental Biology, Warsaw, Poland) **Return reaction a test of the space orientation of white rats in the horizontal and perpendicular plane.** *Acta Biol. exp., Warsaw*, 1959, 19, 273-279.—The ability of the rats to return to the starting point in a maze with the double-choice return way was investigated. It has been found that the rats are able to find the correct return way in the horizontal T and Y shaped mazes whereas they are totally unable to do so in a perpendicular maze. It is suggested that the rats have very poor if any orientation in space in the perpendicular plane in contrast to their very good orientation in the horizontal plane.—*Journal abstract.*

Conditioning

6348. Andreeva, V. N. (Pavlov Inst. Physiology, Leningrad, USSR) **K voprosu o vzaimodeistvii ugasatel'nogo i zapredel'nogo tormozheniia.** [Interaction between the extinctive and transmarginal inhibition.] *Zh. vyssh. nervn. Deiatel.*, 1962, 12(4), 679-685.—Food CRs were established in 5 dogs of

strong nervous activity using auditory and visual CS. Extinction to an excessively strong stimulus can produce either summation or disinhibition.—A. Cuk.

6349. Borukaev, P. K. (Moscow, USSR) **Kharakter serdetschnogo komponenta biologicheskikh raznogo roda reaktsii v usloviakh korkovogo perekliucheniia.** [Nature of the cardiac component of biologically different reactions under conditions of cortical switch-over.] *Zh. vyssh. nervn. Deiatel.*, 1962, 12(4), 695-703.—Alimentary and defensive CR were formed in 3 dogs and it was found that CS produce changes in the heart rate which vary individually.—A. Cuk.

6350. Fedorov, V. K. (Inst. Physiology, Acad. Sciences, USSR) **Nekotorye itogi izucheniia tipologicheskikh svoictiv vysshel' nervnoi deiatel'nosti zhivonnykh.** [Some results obtained in studying the typological properties of higher nervous activity in animals.] *Dokl. Akad. Nauk SSSR*, 1962, 142(6), 1432-1435.—Noting the fact that the various indices used to measure the same properties of nervous systems of animals do not correlate very highly, a systematic investigation of this problem was undertaken. Using mice and rats as Ss, a series of conditioned reflexes was elaborated successively in the same animals. These involved different reflexes and/or altering of the same reflexes. Correlations between number of errors in elaborating any particular pain or reflexes were generally low ranging from $-.50$ to $+.50$. However, correlations between average number of errors in altering a reflex over the whole series and alteration of 2 different reflexes reached $.90$. Thus lability of nervous systems can be quantified if the proper index is used.—H. Pick.

6351. Fel'berbaum, P. A. (Leningrad, USSR) **Dannye o vzaimnosvazi verkhnikh dykhatel'nykh putei s koroii golovnogo mozga.** [Interrelation between the upper respiratory tracts and the cerebral cortex.] *Zh. vyssh. nervn. Deiatel.*, 1962, 12(4), 657-664.—By means of a rubber balloon introduced into the trachea of a dog both exteroceptive respiratory CR and interoceptive motor CR were established. A number of experiments with anaesthesia of the mucous were performed in order to study the significance of mechanoreceptor stimulation for the formation of the interoceptive CR.—A. Cuk.

6352. Harwood, C. W. (Western Washington State Coll.) **Operant heart rate conditioning.** *Psychol. Rec.*, 1962, 12(3), 279-284.—This paper describes the 2nd of a planned series of operant autonomic conditioning experiments. The result of this attempt to condition heart rate deceleration was negative. Consideration of changes to be made in the experimental design which may facilitate instrumental conditioning of an autonomic response were presented in the form of discussion of planned research.—R. J. Seidel.

6353. Mikushkin, M. K. (Kirov Military Medical Acad., Leningrad, USSR) **O signal'noi roli interotseptivnykh razdrashitelei v sviazi s vytesneniem ikh iz stereotipa.** [The signal role of interoceptive stimuli in connection with their elimination from the stereotype.] *Zh. vyssh. nervn. Deiatel.*, 1962, 12(4), 704-706.—Conditioning performed with 5 dogs showed that interoceptive CS displaced from the stereotype by the exteroceptive CS retain their

signal significance. Collision of positive and negative interoceptive CS displaced from the stereotype resulted in neurosis of 2 of the dogs.—*A. Cuk.*

6354. Noble, Merrill, & Adams, Calvin K. (Kansas State U.) **Conditioning in pigs as a function of the interval between CS and US.** *J. comp. physiol. Psychol.*, 1963, 56(1), 215-219.—The effect of length of CS-US interval on efficiency of classical conditioning in swine was investigated. In the 1st experiment independent groups were tested with intervals of .5, 1, 1.5, and 2 sec. A control condition received CS-only and US-only trials. The 2-sec. condition gave reliably better conditioning than all other intervals. In the 2nd experiment the CS-US intervals were 1, 2, 4, and 8 sec. During early trials conditioning was best for intervals of 1 and 2 sec., but late in training conditioning was best for 4 and 8 sec. These results conflict with those for human Ss and for fish. (21 ref.)—*Journal abstract.*

6355. Noble, Merrill, & Harding, Gherry E. (Kansas State U.) **Conditioning in rhesus monkeys as a function of the interval between CS and US.** *J. comp. physiol. Psychol.*, 1963, 56(1), 220-224.—The optimum CS-US interval for classical conditioning in an infrahuman primate was investigated in 54 rhesus monkeys using CS-US intervals of .5, 1, 2, and 4 sec. The CS was an increase in illumination, and the US was a dc shock lasting .1 sec. Only the 2-sec. condition gave significantly more CRs than the control condition, which consisted of CS-only and US-only trials in random order. The results are discussed in relation to recent theoretical statements.—*Journal abstract.*

6356. Pavlov, B. V., Baru, A. V., Bolotina, O. P., & Prazdnikova, N. V. (Pavlov Inst. Physiology, Leningrad, USSR) **Materialy k sravnitel'noi fiziologii sledovykh uslovykh refleksov.** [Data on comparative physiology of CR.] *Zh. vyssh. nervn. Deiatel.*, 1962, 12(4), 630-636.—Food trace and delay CRs were established in 8 golden crucians, 8 pigeons, 8 rabbits, 6 dogs, and 9 monkeys using light and sound as CS. CR was formed rapidly in all animals. The longest duration of the inhibitory phase was recorded in monkeys and the shortest in pigeons.—*A. Cuk.*

6357. Serkov, F. N., & Fedorovich, G. I. (Medical Inst., Odessa, USSR) **O tormozishchem i vzbuzhdaiushchem deistvii dopolnitel'nogo razdrzhitelia na deiatel'nost' golovnogo mozga.** [Inhibitory and excitatory effect of an additional stimulus on the brain activity.] *Zh. vyssh. nervn. Deiatel.*, 1962, 12(4), 643-648.—When an additional CS (sound of bell or noise) was added to the ongoing conditioned activity of 4 dogs, it was found that the effect of such a stimulus depends upon the functional state of the organism. In an alert animal, it caused a depression of the conditioned activity revealed by a decrease in positive CR and by disinhibition of differentiations. In animals with a depressed conditioned activity as a result of sedatives the additional stimulus produces increased conditioned salivation.—*A. Cuk.*

6358. Sharov, A. S., Alekseev, M. A., & Zalkind, M. S. (Inst. Higher Nervous Activity Neurophysiology, USSR Acad. Sciences, Moscow) **Elektronnyi differentsiator.** [Electronic differentiator.] *Zh. vyssh. nervn. Deiatel.*, 1962, 12(4), 762-768.—De-

scription with diagrams of a new apparatus to measure the motor activity in conditioning.—*A. Cuk.*

6359. Sommer-Smith, J. A., Galeano, C., Piñeyrúa, M., Roig, J. A., & Segundo, J. P. (Inst. Investigación Ciencias Biológicas, Montevideo) **Tone cessation as a conditioned signal.** *EEG clin. Neurophysiol.*, 1962, 14, 869-877.—By means of a standard conditioning routine (instrumental or classical) in which reinforcement occurred shortly after the interruption of a very prolonged sound, 9 cats were trained to react specifically to the cessation of the tone and not to its initiation. During habituation the animals consistently responded more to the beginning of the tone than to its cessation. The learned reaction pattern exhibited the behavioral and electrographic features of a typical conditioned reflex.—*L. C. Johnson.*

6360. Stanley, Walter C., Cornwell, Anne Christake; Poggiani, Constance, & Trattner, Alice. (Roscoe B. Jackson Memorial Lab.) **Conditioning in the neonatal puppy.** *J. comp. physiol. Psychol.*, 1963, 56(1), 211-214.—To determine whether appetitive and aversive conditioning is possible in the puppy less than 2 weeks old, 26 Shetland sheepdog and cocker spaniel puppies were divided into 3 groups and received 7 days of conditioning. They had a mean age of 3 days when training began and a mean age of 10 days when training ended. In each group the CS was a 5-sec. insertion of a manometer nipple into S's mouth. In the positive group the CS was paired with nipple-dropper-feeding of milk; in the neutral group, with reinsertion of the manometer nipple, and in the negative group, with nipple-dropper-"feeding" of a quinine solution. Sucking behavior and struggling by Ss occurred during the CS as expected from the conditions of reinforcement. It was concluded that both appetitive and aversive conditioning can occur in the neonatal puppy and that previous failures to obtain conditioning were due to inadequate conditions for learning rather than to any general unconditionability of the neonatal puppy.—*Journal abstract.*

6361. Stepien, I., & Stepien, L. (Nencki Inst. Experimental Biology, Warsaw, Poland) **The effect of sensory cortex ablations on instrumental (Type II) conditioned reflexes in dogs.** *Acta Biol. exp., Warsaw*, 1959, 19, 257-271.—"After bilateral or unilateral ablations of sensory cortex in dogs the instrumental conditioned reflexes of the manipulatory character (putting foreleg of foodtray, pressing a lever with forelegs) were abolished whereas the locomotor conditioned reflexes were preserved. After a lapse of time the conditioned manipulatory reflexes are restored 'spontaneously' i.e. without any special training. . . . In dogs with total ablation of sensory area I and II the lack of instrumental reactions lasted for 6-10 weeks, whereas in dogs with less extensive ablations it was shorter. The climbing onto a table and going over a barrier was also abolished after sensory lesions and then gradually reappeared. On the other hand the contact placing reaction was permanently lost. The general behaviour of the animals remained quite normal and adequate and their inhibitory conditioned reflexes were preserved." (23 ref.)—*C. T. Morgan.*

6362. Szwedkowska, G. (Nencki Inst. Experimental Biology, Warsaw, Poland) **The transformation of differentiated inhibitory stimuli into posi-**

tive conditioned stimuli. *Acta Biol. exp., Warsaw*, 1959, 19, 151-159.—“The properties of the differentiated inhibitory stimuli were investigated [in 5 dogs] in respect to their rate of transformation into the positive conditioned stimuli. It was found that in the case of fine differentiation the inhibitory stimulus is easily transformed into the excitatory stimulus, while in the case of crude differentiation this transformation is more difficult and imperfect. It can be concluded that in the case of a fine differentiation the stimulus behaves like a primary excitatory conditioned stimulus, whereas in the case of a crude differentiation it resembles a primary inhibitory stimulus.”—C. T. Morgan.

6363. Szwejkowska, G., & Konorski, J. (Nencki Inst. Experimental Biology, Warsaw, Poland) **The influence of the primary inhibitory stimulus upon the salivary effect of excitatory conditioned stimulus.** *Acta Biol. exp., Warsaw*, 1959, 19, 161-173.—“The combined application of an excitatory conditioned stimulus and a primary inhibitory stimulus [12 dogs] leads to the diminution of the effect of the former stimulus. This diminishing effect is stronger during the action of the inhibitory stimulus than after its cessation. The mechanism of the inhibitory conditioned reflexes is discussed.” (22 ref.)—C. T. Morgan.

6364. Wyrwicka, W. (Nencki Inst. Experimental Biology, Warsaw, Poland) **Studies on the effects of the conditioned stimulus applied against various experimental backgrounds.** *Acta Biol. exp. Warsaw*, 1958, 18, 175-193.—“Instrumental alimentary and defensive conditioned reflexes to various stimuli were established in dogs in . . . [a] conditioned-reflex chamber. Then these stimuli were tested in various other experimental situations. It was found that each conditioned stimulus evoked a general conditioned reaction connected with it by training, but the instrumental conditioned reaction was elicited only when some elements from the usual situation were present in the test situation. . . . [A] discussion of the phenomenon is given.”—C. T. Morgan.

6365. Zbrozyna, A. W. (Nencki Inst. Experimental Biology, Warsaw, Poland) **On the conditioned reflex of the cessation of the act of eating: I. Establishment of the conditioned cessation reflex.** *Acta Biol. exp., Warsaw*, 1958, 18, 137-159.—A conditioned reflex of cessation of the act of eating was established in 7 dogs to a stimulus (visual, auditory, or tactile) applied during the meal several seconds before the withdrawal of food. The process of development of this conditioned cessation reflex is described and the curves of salivary secretion during the action of the stimulus signalling the withdrawal of food are compared. The results of investigations concerning the problem of “backward conditioning” are discussed, and the probable mechanism of the conditioned cessation of eating is presented.—*Journal abstract*.

6366. Zbrozyna, A. W. (Nencki Inst. Experimental Biology, Warsaw, Poland) **On the conditioned reflex of the cessation of the act of eating. II. Differentiation of the conditioned cessation reflex.** *Acta Biol. exp., Warsaw*, 1958, 18, 163-174.—In order to analyse further the properties and organization of the conditioned reflex of cessation of

eating, differentiation of this reflex was attempted in 5 dogs. In 3 of them a complete differentiation was obtained. The stimulus signalling the withdrawal of food evoked interruption of the act of eating and retirement from the food tray. The differential stimulus did not seem to influence the act of eating. In one of the dogs it was not possible to establish the conditioned reflex of cessation of eating and in another a severe neurosis developed during the differentiation. The possible mechanism of this differentiation is discussed.—*Journal abstract*.

6367. Zbrozyna, A. W. (Nencki Inst. Experimental Biology, Warsaw, Poland) **On the conditioned reflex of the cessation of the act of eating. III. Extinction of the conditioned cessation reflex.** *Acta Biol. exp., Warsaw*, 1959, 19, 249-255.—The “course of extinction of the conditioned cessation of eating in dogs is described.”—C. T. Morgan.

6368. Zernicki, B., & Ekel, J. (Nencki Inst. Experimental Biology, Warsaw, Poland) **Elaboration and mutual relations between alimentary and water instrumental conditioned reflexes in dogs.** *Acta Biol. exp., Warsaw*, 1959, 19, 313-324.—“In four dogs in the same experimental situation two different instrumental conditioned reflexes were established by food and water reinforcement. In two of these dogs the differentiation between both movements became perfected and they performed in hunger-driven experiments only the alimentary movement and in thirst-driven experiments only water movement. In two other dogs the differentiation was never very precise due to ‘natural’ preference of one of the trained movements.” (17 ref.)—C. T. Morgan.

6369. Zernicki, B., & Konorski, J. (Nencki Inst. Experimental Biology, Warsaw, Poland) **Fatigue of acid conditioned reflexes.** *Acta Biol. exp., Warsaw*, 1959, 19, 327-337.—“When the intertrial intervals were either 6 min. or 3 min. no signs of fatigue of the conditioned reflexes was observed. When the intertrial intervals were 1.5 min., fatigue of conditioned reflexes was clearly manifested in one dog. . . . When the intertrial interval was prolonged, or the strong conditioned stimulus was applied instead of the weak one, the conditioned reflex immediately returned to normal. The fatiguability of conditioned reflex was only temporary and with prolonged training it gradually disappeared.” (20 ref.)—C. T. Morgan.

Discrimination

6370. Baird, J. C., & Becknell, J. C., Jr. (U. Delaware) **Discrimination learning as a function of early form exposure.** *Psychol. Rec.*, 1962, 12 (3), 309-313.—Triangles and circles or rectangles and circles (2 groups) were placed on walls of rearing cages of albino rats from age 26 days to 85 days. Discrimination training with circle negative was then given. $\frac{1}{2}$ were tested with triangle and $\frac{1}{2}$ with rectangle positive. No effect of early experience was found when compared with control rats having no early exposure. Caution is suggested in citing this type of study to support perceptual theory.—R. J. Seidel.

6371. Hitchcock, Lloyd, Jr. (Purdue U.) **Comparative studies of the contribution of areal asymmetry, rotation, and sidedness to form dis-**

crimination. *Dissert. Abstr.*, 1962, 22(7), 2476.—*Abstract.*

6372. Honig, Werner K., Boneau, C. Alan; Burstein, K. R., & Pennypacker, H. S. (Denison U.) Positive and negative generalization gradients obtained after equivalent training conditions. *J. comp. physiol. Psychol.*, 1963, 56(1), 111-116.—Positive and negative gradients were compared on the dimension of angular orientation (tilt) following discrimination training with the presence of a vertical line being positive and its absence being negative for one group of pigeons, and the opposite discrimination for another group. The gradients were initially very similar in form, although the negative gradient became flatter in the course of testing. Equivalent training conditions therefore produced similar positive and negative gradients; previously obtained differences between gradients of acquisition and extinction are presumably due to differences in pretest training procedures.—*Journal abstract.*

6373. Pastore, Nicholas. (Queens Coll.) Perceptual functioning in the duckling. *J. Psychol.*, 1962, 54(2), 293-298.—The perceptual functioning of 16 ducklings was investigated shortly after hatching. Each S was light-deprived prior to its entry to an experimental situation and between blocks of trials during the course of training. All Ss were assigned only one perceptual task. Different groups of 4 Ss discriminated an outline triangle from other outline geometric figures, horizontal from vertical striations, and black from white objects. Brightness constancy was demonstrated in 1 group of 4 Ss. Criterion level was reached by all Ss at the median age of 1 day. The relevance of the results to empiristic and nativistic approaches to perception was briefly discussed.—*Author abstract.*

6374. Sutherland, N. S., Mackintosh, N. J., & Mackintosh, J. (Oxford U.) Simultaneous discrimination training of octopus and transfer of discrimination along a continuum. *J. comp. physiol. Psychol.*, 1963, 56(1), 150-156.—Octopuses taught by a new training procedure mastered a simultaneous shape discrimination of moderate difficulty. 3 predictions from a theory about switching in different analyzing mechanisms were tested. (a) Ss 1st trained to discriminate shapes having a large difference along a dimension subsequently performed better with shapes having a small difference than did Ss trained from the outset on the latter shapes. (b) Performance of Ss originally trained on the difficult discrimination showed marked improvement when transfer tests without opportunity for relearning were given with easier discrimination. (c) Asymptotes of performance of Ss trained by the simultaneous and successive methods were the same on the easier discrimination, but Ss trained by the successive method performed better on the difficult discrimination.—*Journal abstract.*

6375. Tandler, Blaine Fabian. (State U. Iowa) VTE and discrimination behavior in relation to gap distance between choice point and discriminanda. *Dissert. Abstr.*, 1962, 22(8), 2888.—*Abstract.*

Avoidance

6376. Grossberg, J. M. (Indiana U.) Pseudo-conditioning, drive reduction, and the acquired fear-drive hypothesis. *Psychol. Rec.*, 1962, 12(3),

299-307.—This is a replication of shuttle-box study by Brown and Jacobs (1949) with added controls. The paradigm involved (a) Stage 1—light-tone pairing followed by shock with no escape possible and (b) Stage 2—avoidance testing to light-tone. Stimuli were terminated upon completion of the barrier jumping response. The added controls were: (a) light-tone or after avoidance response, (b) shock only during Stage 1, or (c) no light-tone or shock during Stage 1. Latencies during testing did not decrease, and response frequency significantly decreased. The acquired fear-drive hypothesis was not supported.—*R. J. Seidel.*

6377. Hoffman, Howard S., Fleshler, Morton, & Jensen, Philip K. (Pennsylvania State U.) Aversive training: Long-term effects. *Science*, 1962, 138(Whole No. 3546), 1269-1270.—3 years ago a tone ending in unavoidable electric shock was periodically presented to pigeons while they pecked a key for food. When pecking was disrupted by tone, shock was disconnected and the training tone and tones of different frequencies were presented. At first all tones caused a reduction in the rate of pecking, but as testing proceeded the gradient narrowed. In our study, testing was resumed after a 2½-year interruption. Despite the interruption the tones still suppress behavior.—*Journal abstract.*

6378. Kirby, Raymond H. (Princeton U.) Acquisition, extinction, and retention of an avoidance response in rats as a function of age. *J. comp. physiol. Psychol.*, 1963, 56(1), 158-162.—In Experiment 1, rats 25, 50, and 100 days old were conditioned in a runway to avoid shock at the sound of a buzzer and then extinguished to a criterion. Of 2 groups at each age level, 1 was randomly selected, trained, and extinguished, and 1 was matched for performance during acquisition and then extinguished in order to study resistance to extinction with original learning held constant. There were no significant differences in acquisition or extinction in matched or unmatched groups. The 2nd experiment measured retention of an avoidance response 1, 25, and 50 days following conditioning at 25, 50, and 100 days. The number of avoidance responses in a 30-trial reconditioning test indicated that retention was significantly lower in the 25-day-old group than in the 2 older groups.—*Journal abstract.*

Reinforcement

6379. Barry, Herbert, & Symmes, David. (U. Connecticut) Reinforcing effects of illumination change in different phases of the rat's diurnal cycle. *J. comp. physiol. Psychol.*, 1963, 56(1), 117-119.—48 albino rats, maintained on an equalized 24-hr. light-dark cycle, pressed a "positive" bar, which altered illumination of the test box, more often than they pressed a "neutral" bar which had no effect. Both bars were pressed at a higher rate by Ss tested during the dark rather than light part of the diurnal cycle. Ss tested for light onset, in a dark box, did not differ in positive-bar preference from Ss tested for light offset, in a light box. However, during successive test sessions positive-bar preference decreased for the light-onset groups and increased for the light-offset groups. It is concluded that bar pressing was reinforced by illumination change, regardless of level of bar pressing activity or direction of illumination change.—*Journal abstract.*

6380. Black, Roger Wade. (State U. Iowa) Spatial discrimination learning as a function of varying magnitudes of differential sucrose reinforcement. *Dissert. Abstr.*, 1962, 22(8), 2880-2881.—*Abstract*.

6381. Capaldi, E. J., Hart, Dick, & Stanley, Larry R. (Texas U.) Effect of intertrial reinforcement on the aftereffect of nonreinforcement and resistance to extinction. *J. exp. Psychol.*, 1963, 65(1), 70-74.—2 groups of rats were trained to traverse a straight alley under identical patterns of partial reinforcement; a 3rd group received consistent reinforcement. Both partial groups received intertrial reinforcements, one following nonreinforced trials preceding reinforced ones, the 2nd following reinforced trials preceding either reinforced or nonreinforced ones. The 1st partial group was not more resistant than the consistent group, while the 2nd partial group showed the typical partial reinforcement effect.—*Journal abstract*.

6382. Church, Russell M., & Carnathan, James. (Brown U.) Differential reinforcement of short-latency responses in the white rat. *J. comp. physiol. Psychol.*, 1963, 56(1), 120-123.—This study was concerned with the effect of selective reinforcement of short-latency responses by rats in a lever box. After discrimination training, each of 8 experimental Ss was reinforced on all trials in which its response latency was less than the median of its latencies on the previous day. Relative to control Ss that received the same number and sequence of reinforcements, experimental Ss were similar with respect to the mean log latency of response but the latency distribution of experimental Ss was more variable than that of the control Ss ($p < .01$). These results suggested that differential reinforcement of short-latency responses may be more closely related to stimulus discrimination than to response differentiation.—*Journal abstract*.

6383. D'Amato, M. R., Schiff, Donald, & Jagoda, Harry. (New York U.) Resistance to extinction after varying amounts of discriminative or nondiscriminative instrumental training. *J. exp. Psychol.*, 1962, 64(5), 526-532.—Using albino rats, support was found for the hypothesis that acquisition level and resistance to extinction would be monotonically related for a simple (nondiscriminative) instrumental response (bar pressing), but the function would be non-monotonic for a comparable discriminative response (successive brightness discrimination). It was also found that the discriminatively trained Ss were more resistant to extinction than those trained on the simple instrumental response. (20 ref.)—*J. Arbit*.

6384. Egger, M. David, & Miller, Neal E. (Yale U.) When is a reward reinforcing? An experimental study of the information hypothesis. *J. comp. physiol. Psychol.*, 1963, 56(1), 132-137.—A secondary reinforcement paradigm was used to try to find the point in the sequence of delivery and consumption of reward at which reinforcement occurs. A food pellet always preceded a stimulus which signalled the delivery of 3 additional pellets. For 12 Ss (albino rats) receiving only this sequence during training, the stimulus was redundant; for 12 others who received, in addition, unpredictable single pellets alone, the stimulus was informative. When Ss were allowed to press a bar on an FR 3 schedule for 1 sec. occurrences of the training stimulus, the group for

whom the stimulus had been informative pressed significantly more ($p < .01$) than did the group for whom the stimulus had been redundant.—*Journal abstract*.

6385. Gleitman, Henry, & Herman, Magdalena M. (Swarthmore Coll.) Replication report: Latent learning in a T maze after shock in one end box. *J. exp. Psychol.*, 1962, 64(6), 646.—Previous studies have shown latent learning in a T maze with highly differentiated end boxes. Appropriate choice behavior was found when rats were shocked in one or the other of the 2 end boxes following equal numbers of reinforcements on both sides. With minor modifications the original experiment was replicated, and the major finding was substantiated although with some difference in magnitude of the effects. The effect of the development of strong turning or place preferences is noted.—*J. Arbit*.

6386. Hill, Winfred F., & Spear, Norman E. (Northwestern U.) Resistance to extinction as a joint function of reward magnitude and the spacing of extinction trials. *J. exp. Psychol.*, 1962, 64(6), 636-639.—"Rats received 25 trials of acquisition and 20 trials of extinction in a straight alley, with reward magnitude (four pellets or one) and intertrial interval in extinction (20 sec. or 24 hr.) varied factorially. Resistance to extinction was greater for large reward and for spaced extinction, without the interaction predicted from a comparison of earlier studies. Marked reminiscence was observed from day to day in acquisition."—*J. Arbit*.

6387. Hulse, Stewart H. (Johns Hopkins U.) Partial reinforcement, continuous reinforcement, and reinforcement shift effects. *J. exp. Psychol.*, 1962, 64(5), 451-459.—"Instrumentally conditioned licking was studied in two experiments as a function of ratio of reinforcement and shifts in the concentration of a saccharin reinforcer. With partial reinforcement (PRF), a shift in concentration produces an immediate change in licking rate in the direction of the shift. With continuous reinforcement (CRF), the immediate reaction to the shift is always a decrease in response rate. . . . The data suggest that, with PRF, behavior is more critically and permanently under the control of reinforcement stimuli than with CRF. This happens because PRF provides discrimination training for reinforcement stimuli, but CRF does not."—*J. Arbit*.

6388. Jenkins, Herbert M. (Bell Telephone Lab., Murray Hill, N. J.) Resistance to extinction when partial reinforcement is followed by regular reinforcement. *J. exp. Psychol.*, 1962, 64(5), 441-450.—A food-reinforced, key-peck response in the pigeon was used to study resistance to extinction following different amounts of training under different reinforcement conditions. It was concluded that the abruptness of the local transition between training and extinction is not critically involved in producing the partial reinforcement effect.—*J. Arbit*.

6389. Lawrence, Douglas H., & Festinger, Leon. (Stanford U.) Deterrents and reinforcement: The psychology of insufficient reward. Stanford, Calif.: Stanford Univ. Press, 1962. vi, 180 p. \$4.75.—This volume presents data from 15 original experiments which apply the theory of cognitive dissonance to problems in animal learning. The general argument is that "if an organism continues to engage in

an activity while possessing information that, considered alone, would lead it to discontinue the activity, it will develop extra attraction for the activity . . . in order to give itself additional justification for continuing to engage in the behavior." This argument is applied to the effects of partial reward, delay of reward, and high effort on resistance to extinction. Some of the conclusions are that the number of unrewarded trials—not the ratio of rewarded to unrewarded trials—during acquisition determine resistance to extinction, and that increasing the effort that an animal must expend in order to reach a reward increases the resistance to extinction. Several other results, usually consistent with dissonance theory, are also reported.—*K. E. Davis.*

6390. Leaton, R. N., Symmes, D., & Barry, H., III. (Yale U.) Familiarization with the test apparatus as a factor in the reinforcing effect of change in illumination. *J. Psychol.*, 1963, 55(1), 145-151.—The effect of contingent dim light onset and offset on lever pressing by albino rats was studied in groups with 0, 2, and 7 days of prior familiarization with the test box. Both light onset and light offset were found to be reinforcing for rats familiar with the test box, but the offset effect was much smaller than the onset effect. Rats without prior familiarization showed no reinforcing effect of illumination change during the first few test sessions, but a significant reinforcing effect developed for the light onset group over sessions. The light offset group showed no such delayed reinforcing effect.—*Author abstract.*

6391. Mintz, Donald Edward. (Columbia U.) Response dimensions under ratio reinforcement. *Dissert. Abstr.*, 1962, 22(11), 4099.—*Abstract.*

6392. Nacowski, Richard Michael. (Louisiana State U.) Acquisition and extinction of a running response as a function of differing numbers of trials under partial and continuous reinforcement. *Dissert. Abstr.*, 1962, 22(9), 3275.—*Abstract.*

6393. Porter, John James. (State U. Iowa) The relation between speed and choice responses in a simple brightness discrimination under differential magnitudes of reward. *Dissert. Abstr.*, 1962, 22(8), 2887-2888.—*Abstract.*

6394. Renner, K. Edward. (Northwestern U.) Influence of deprivation and availability of goal box cues on the temporal gradient of reinforcement. *J. comp. physiol. Psychol.*, 1963, 56(1), 101-104.—A factorial design, using 3 intervals of delay, 2 levels of food deprivation, and presence or absence of goal related stimuli in the delay chamber, was employed to study acquisition and extinction performance of rats in a straight alley runway. The well established temporal gradient of reinforcement was obtained; this gradient was affected by drive level and availability of goal box cues, with drive level and delay combining additively, and with the cues facilitating performance only when reinforcement was delayed. High drive animals extinguished faster than low drive animals. The acquisition and extinction performance of the animals was discussed in terms of delay of reward as a frustration.—*Journal abstract.*

6395. Renner, Kenneth Edward. (Northwestern U.) Delayed reward learning as a function of

drive level and cue distinctiveness. *Dissert. Abstr.*, 1962, 22(8), 2878.—*Abstract.*

6396. Sohn, David. (U. Texas) Response vigor as a function of reduction in the magnitude of reward for an immediately preceding instrumental response. *Dissert. Abstr.*, 1962, 22(10), 3750-3751.—*Abstract.*

6397. Theios, John Milton. (Stanford U.) The partial reinforcement effect sustained through blocks of continuous reinforcement. *Dissert. Abstr.*, 1962, 22(10), 3753.—*Abstract.*

6398. Ward, George, II. (Ohio State U.) A study of delayed secondary reinforcement. *Dissert. Abstr.*, 1962, 22(11), 4102.—*Abstract.*

6399. Wetzel, Ralph James, Jr. (U. Washington) The effect of primary reward magnitude on the value of acquired rewards. *Dissert. Abstr.*, 1962, 22(11), 4102.—*Abstract.*

6400. Wike, E. L., & Platt, J. R. (U. Kansas) Reinforcement schedules and bar pressing: Some extensions of Zimmerman's work. *Psychol. Rec.*, 1962, 12, 273-278.—2 experiments were conducted using the runway-skinner box (Zimmerman, 1959) paradigm in order to study secondary reinforcement. Variables in Experiment 1 of continuous vs. partial primary reinforcement, continuous vs. partial secondary reinforcement, and buzzer, as well as access to a runway after bar pressing vs. access only, yielded no significant source of variation. In Experiment 2, a 1/5 fixed ratio schedule yielded significantly more bar pressing than Zimmerman's diminishing schedule. This effect held in 2 replications.—*R. J. Seidel.*

6401. Wise, Leon M. (Heidelberg Coll.) Supplementary report: The Weinstock partial reinforcement effect and habit reversal. *J. exp. Psychol.*, 1962, 64(6), 647-648.—The purpose of the present study was to determine whether or not the partial reinforcement effect (PRE) would be present in a habit reversal discrimination problem with a 24-hr. intertrial interval. "The present experiment can be added to a growing body of studies denying the Sheffield aftereffects hypothesis. There seems to be little doubt now but that PREs can be obtained under both massed and distributed conditions and must be accounted for by any theory attempting to explain PREs. Whether or not Weinstock's habituation hypothesis is the correct interpretation the writer cannot say, but the present data are in agreement with it."—*J. Arbit.*

6402. Wsies, Leon Milton. (Pennsylvania State U.) Resistance to habit reversal as a function of percent of reinforcement, massed versus distributed learning, and number of UR sequences. *Dissert. Abstr.*, 1962, 22(7), 2483-2484.—*Abstract.*

Motivation & Learning

6403. Goldstein, Henry, & Spence, Kenneth W. (State U. Iowa) Performance in differential conditioning as a function of variation in magnitude of reward. *J. exp. Psychol.*, 1963, 65(1), 86-93.—4 groups of rats designated Groups 10-0, 10-1, 10-5, and 5-1 were run in a differential conditioning experiment. The numerals refer to the number of food pellets (W_g) associated with the 2 discriminanda (white and black alleys). Ss ran 75 trials to each alley. Differentiation within an S occurred in groups re-

warded in both alleys much as it did in Ss given no reward on 1 of the discriminanda. Rate of differentiation was positively related to differences in W_g . Comparison between groups showed that the function relating asymptotic response speeds for both large- and small-reward discriminanda was a negatively accelerated increasing one. Also, the finding that response speeds based on a given reward magnitude were the same whether it was the larger or the smaller of the 2 rewards implies that asymptotic performance is determined by the absolute magnitude of the reward and not by some other factor(s) based on contrast or relative effects, e.g., frustration.—*Journal abstract.*

6404. Steigman, Martin Jay. (U. Texas) *Discrimination conflict and level of drive.* *Dissert. Abstr.*, 1962, 22(10), 3751.—*Abstract.*

6405. Thetford, Paul Edward. (Tulane U.) *The effect of work, rest intervals, and rate of work elicitation upon reactive inhibition.* *Dissert. Abstr.*, 1962, 22(11), 4101.—*Abstract.*

6406. Trapold, Milton Alvin. (State U. Iowa) *The effect of incentive motivation on an unrelated reflex response.* *Dissert. Abstr.*, 1962, 22(8), 2889-2890.—*Abstract.*

COMPLEX PROCESSES

6407. Cross, Henry A., Fletcher, Harold J., & Harlow, Harry F. (U. Wisconsin) *Effects of prior experience with test stimuli on learning-set performance of monkeys.* *J. comp. physiol. Psychol.*, 1963, 56(1), 204-207.—Of 4 groups of monkeys, 3 were given living-cage experience with 3 stimulus objects which appeared subsequently as the positively, negatively, or inconsistently rewarded objects in 3 12-trial discrimination problems. The 4th group had no pretest experience with stimulus objects. Animals were tested 5 days a week for 10 weeks. The results indicated that the consistently treated groups learned to utilize the cue of familiarity to solve the problems on Trial 1. The group rewarded for selecting the novel object excelled the group rewarded for selecting the familiar object on Trial 1, but on Trials 2 through 12 the order was reversed. The findings are interpreted in terms of error-factor theory.—*Journal abstract.*

6408. Gough, Philip Bruce. (U. Minnesota) *The study of mediation in animals.* *Dissert. Abstr.*, 1962, 22(11), 4094.—*Abstract.*

6409. Kainz, Friedrich. (U. Vienna) *Die "Sprache" der Tiere: Tatsachen, Problemschau, Theorie.* [The "language" of animals: Facts, review of problems theory.] Stuttgart, Germany: Ferdinand Enke, 1961. viii, 322 p. DM 29.50.—Part I is a review of the facts known concerning communication in insects, fish, reptiles and amphibia, birds, and apes and other mammals. Part II is concerned with the systematics and theory of animal "language." In addition to inborn expressive functions, animal communication some times shows: imparting of information, change through learning, abbreviation and ritualization, remote beginnings of symbolism, and additive combinability of single signs. However, morphological declining and syntactical combination of its symbols are exclusive to human language. Language is a "productive system," while for animal communication, which remains limited to an unproductive sys-

tem, only primitive advances in regard to extension of itself are possible. Animal communication fails to show the fuller development of human language since neither the vital needs within their environment nor the structure of their biologically conditioned societies demands it.—N. M. Ginsburg.

6410. Konorski, J., & Lawicka, W. (Nencki Inst. Experimental Biology, Warsaw, Poland) *Physiological mechanism of delayed reactions: I. The analysis and classification of delayed reactions.* *Acta Biol. exp., Warsaw*, 1959, 19, 175-197.—In "the course of delayed reactions the processes of recent memory, as well as stable memory processes, are involved."—C. T. Morgan.

6411. Lawicka, W. (Nencki Inst. Experimental Biology, Warsaw, Poland) *Physiological mechanism of delayed reactions: II. Delayed reactions in dogs and cats to directional stimuli.* *Acta Biol. exp., Warsaw*, 1959, 19, 199-219.—"The present paper is concerned with the properties of the delayed reactions in normal dogs and cats to acoustic and visual directional preparatory stimuli in a triple choice experimental situation. The delays attained under our experimental condition exceeded twelve minutes for dogs and six minutes for cats, and were probably considerably longer. During the delay period, the animals did not preserve their bodily orientation towards the signalled foodtray. . . . Such distracting factors applied during the delay period as extraneous stimuli evoking an orienting reaction, screening of the starting platform, receiving food on the platform, and (in dogs) taking the animal out of the room, did not significantly disturb the correct post-delay response. . . . The cats were in general more prone to make mistakes than the dogs."—C. T. Morgan.

6412. Lilly, John C. (Communications Research Inst., Miami) *Vocal behavior of the bottlenose dolphin.* *Proc. Amer. Phil. Soc.*, 1962, 106, 520-529.—The bottlenose dolphin *Tursiops truncatus* can emit under water and in air many kinds of sounds: whistles, sonic clicks, ultrasonic clicks, rapid trains of clicks, and with training many sounds resembling human speech. The 1st 4 kinds of sounds seem to be used in communication between dolphins, antiphonally or in a series of clicks alternating between the 2 participants. The "humanoid" sounds are produced by imitation of often repeated words of the Es and may be very loud in air. They are pitched high and may become intelligible only when a recording of them is slowed down to as much as $\frac{1}{4}$ speed. Training is slow and attachment of meaning to these words has yet to be achieved.—E. G. Boring.

6413. Wright, P. L., Kay, H., & Sime, M. E. (U. Sheffield, England) *The establishment of learning sets in rats.* *J. comp. physiol. Psychol.*, 1963, 56(1), 200-203.—Rats were trained to a criterion on a series of up to 32 shape discriminations in a discrimination box. 3 animals learned all 32 problems, 1 learned only 10, and the remaining 11 animals mastered between 16 and 28 problems. Progressive improvement occurred from problem block to problem block although the rats took many more trials to learn individual problems than do monkeys or most other mammals thus far investigated in learning-set studies. It is suggested that new procedures are needed to facilitate learning of individual problems so that it

becomes feasible to present longer series of problems to rats.—*Journal abstract.*

SOCIAL BEHAVIOR

6414. Dobrzanska, J. (Nencki Inst. Experimental Biology, Warsaw, Poland) **Partition of foraging grounds and modes of conveyings information among ants.** *Acta Biol. exp., Warsaw*, 1958, 18, 55-67.—Experiments are described which demonstrate that "the existence of at least two forms of adaptation of social foraging may be assumed. In some species this adaptation consists of a definite partition of the foraging grounds, in other species, which have no permanent partition of the territory, the individual, which discovered prey, notifies it to other workers."—C. T. Morgan.

6415. Horel, James A., Treichler, F. Robert, & Meyer, Donald R. (Ohio State U.) **Coercive behavior in the rhesus monkey.** *J. comp. physiol. Psychol.*, 1963, 56(1), 208-210.—Dominance relationships were observed in 8 female monkeys trained to turn a handle to obtain food and paired in the handle-turn apparatus with their cagemates. With the dominant member of a pair established, only the responses of the submissive animal were rewarded with food, requiring the dominant animal to obtain its food by interception of pellets produced by the submissive. When the dominant became proficient at interception, the submissive was fed prior to the sessions, thus setting up the task for the dominant of manipulating its preferred partner to obtain food. The proper manipulations occurred only after several sessions, or after special training. The results were taken as evidence for S-R interpretations of behavior in primate observation learning and communication.—*Journal abstract.*

ABNORMAL BEHAVIOR

6416. Fonberg, E. (Nencki Inst. Experimental Biology, Warsaw, Poland) **The manifestation of the defensive reactions in neurotic states.** *Acta Biol. exp., Warsaw*, 1958, 18, 89-113.—"In three dogs the special instrumental defensive reactions which had been elaborated as a 'defence' against some particular noxious stimulus, appeared in the neurotic state. In two of them, where air-puff into the ear was used as noxious stimulus for the elaboration of defensive reflexes, the 'shaking off' reaction also appeared. In the 4th dog, where the neurotic disturbances were the weakest, only the 'shaking off' reactions were present. . . . The defensive instrumental reactions appeared in the neurotic state even in those dogs where due to a long break in its application they had already ceased to appear to the conditioned stimulus for which they were elaborated. The appearance of defensive reactions in the neurotic state was explained by the theory of anxiety reduction." (54 ref.)—C. T. Morgan.

DEVELOPMENTAL PSYCHOLOGY

6417. Szold Institute for Child and Youth Welfare. (Jerusalem, Israel) **Histaglut noar hayisreelit.** [Adjustment of youth in Israeli society.] Jerusalem, Israel: SICYW, 1961. 96 p.—Lectures and discussions held during the Symposium on Childhood and Youth Problems on the occasion of the centenary of Henrietta Szold. Introductory addresses

were given on Szold, on Jewish youth in Israel and in the Diaspora, and on the adjustment of youth in Israeli society. 6 groups discussed the following items: education towards values, children and adolescents in urban poor quarters, talented youth coming from backward strata, adjustment of mentally retarded children, problems of working youth, and the juvenile child and his treatment.—H. Ormian.

INFANCY

6418. Dreger, Ralph Mason. (Jacksonville U.) **Comparative psychological studies of Negroes and whites in the United States: A reclarification.** *Psychol. Bull.*, 1963, 60(1), 35-39.—Pasamanick's "clarification" of Dreger and Miller's article extends the meaning of the original beyond its intent. In conjunction with Pasamanick's 1946 article it is shown that the samples of white and Negro infants are inadequate. Dreger and Miller could not have been aware of Pasamanick's 1946 reliability procedures for these were not described until his 1962 clarification. In 1962 Pasamanick's "major comparison" between white and Negro infants does not seem to be the same as it was in 1946. Contrary to Pasamanick's contention, Dreger and Miller did not attack Gesell's Developmental Schedules. Later work done by Pasamanick may substantiate his conclusions, but the criticisms of his 1946 article still hold.—*Journal abstract.*

6419. Engen, Trygg; Lipsitt, Lewis P., & Kaye, Herbert. (Brown U.) **Olfactory responses and adaptation in the human neonate.** *J. comp. physiol. Psychol.*, 1963, 56(1), 73-77.—Changes in the human neonate's activity and respiration following olfactory stimulation are reported. Results of 2 experiments demonstrate that (a) the neonate does respond to such stimulation and in different degrees to acetic acid, asafetida, phenylethyl alcohol, and anise oil; and (b) there is adaptation with repeated stimulation by asafetida and anise oil, and recovery of response following a temporal delay. Order of presentation of odors also affects the occurrence of response. No clear differences were obtained between so-called pleasant and unpleasant odors. Alternative interpretations are suggested for the adaptation effect and response differences between odors. Response differentiation, or increased refinement of response with increased practice, was observed to occur.—*Journal abstract.*

6420. Kessen, William, & Leutzendorff, Anne-Marie. (Yale U.) **The effect of nonnutritive sucking on movement in the human newborn.** *J. comp. physiol. Psychol.*, 1963, 56(1), 69-72.—30 newborn human infants were observed on 4 occasions during the lying-in period to determine the behavioral consequences of nonnutritive sucking. On 2 of these occasions a bottle-nipple placed over E's finger was inserted in S's mouth for 30 sec.; on the other 2 occasions E stroked S's forehead lightly with a cloth for 30 sec. Determinations were made of S's movement and, for 20 Ss, of mouthing and crying. Within 5 sec. of nipple insertion S's movement dropped to a significantly lower level; within 25 sec. after the removal of the nipple S's movement had returned to baseline levels. Nipple insertion produced a significantly higher level of mouthing and a significantly lower level of crying. No significant effects of the forehead stimulation were found.—*Journal abstract.*

CHILDHOOD

6421. Baer, Melvyn J., Torgoff, Irving H., & Harris, Donna J. (Merrill-Palmer Inst., Detroit, Mich.) Differential impact of weight and height on Wetzel developmental age. *Child Developm.*, 1962, 33(4), 737-750.—Comparisons of the Wetzel developmental age with height and weight age were made in terms of pattern and level. Results show that the Wetzel developmental age is more closely associated with weight age particularly when weight age exceeds height age. Fluctuating weight age conveys the impression of erratic growth in size when such may not be the case. There is a need to supplement the Wetzel developmental age with assessments of height and weight.—W. J. Meyer.

6422. Fedorov, V. K. (Leningrad, USSR) Nekotorye fiziologicheskie mekhanizmy nachalnogo razvitiya psikhicheskoi zhizni rebenka. [Some physiological mechanisms of the early development of mental life of the child.] *Vop. Psikh.*, 1962, No. 3, 149-154.—With observations based mainly on his own little boy, the author traces the development of speech of a child from the birth cry, through whimpering, babbling, and the beginning of specific words. These latter are discussed in the context of imitative and conditional responses. Even at 3 years the child does not use language in an inferential and problem solving way, but still as a set of learned responses.—H. Pick.

6423. Geréb, G. (Pedagogical U. Szeged, Hungary) Experimentelle Untersuchungen über die psychische Ermüdung bei Kindern. [Experimental investigation of mental fatigue in children.] *Psychiat. Neurol. med. Psychol., Leipzig*, 1962, 14(11), 403-408.—In response to questionnaires, about 6000 school-children described how they spent their days. Tests were given to roughly 10% of these. Flicker fusion frequency and specially construed measurements of visuomotor coordination, visual and auditory associations, responses to light, sound, and to electrical shock were tested to assess the degree of fatigue, which was correlated with the stresses engendered by school-work. Allegedly because the children were over-burdened, had inadequate time for sleep and recreation, they developed neuroses.—R. Kaelbling.

6424. Lange, Ulrich. Über das Suchen elternloser Kinder nach ihren leiblichen Angehörigen. [On the search of orphans for their blood relatives.] *Prax. Kinderpsychol. Kinderpsychiat.*, 1962, 11(5), 172-177.—Such children often seem satisfied after having found the names of their parents. 2 cases are reported.—E. Katz.

6425. Lax, Ruth Franceska. (New York U.) An experimental investigation of children's size estimation under neutral and fear arousing conditions. *Dissert. Abstr.*, 1962, 22(11), 4082.—Abstract.

6426. LeVine, Barbara Bloom. (Northwestern U.) Punishment techniques and the development of conscience. *Dissert. Abstr.*, 1962, 22(7), 2486-2487.—Abstract.

6427. Lyamina, G. M., & Gagua, N. P. (Acad. Medical Sciences, Moscow, USSR) Osobennosti rechevnykh reaktsii u detei tret'ego goda zhizni. [Properties of speech reaction in children of the third year of life.] *Vop. Psikh.*, 1962, No. 3, 155-166.—The speech reactions of 20 children were studied as

they responded to presentation of pictures along with the question: "What is it?" Latent periods of response were measured as a function of the interval between presentation trials, the length of presentation of the various pictures, and the state of alertness of child. The latencies were generally shorter when the presentation times were short and intertrial intervals short and the children were alert. The quality of the speech was also analyzed as a function of the state of alertness of the children. A greater percentage of alert children responded adequately to E's question and there were fewer articulation errors.—H. Pick.

6428. McClintock, Robert Edgar. (George Peabody Coll. Teachers) A factor analytic study of tendencies of first grade children to continue task responses. *Dissert. Abstr.*, 1962, 22(8), 2884-2885.—Abstract.

6429. Makhikh, E. S. (Inst. Psychology, Moscow, USSR) Igrovaya motivatsiya v pionerskoi rabote. [Play motivation in pioneer [youth organization] work.] *Vop. Psikh.*, 1962, No. 3, 117-126.—The present article discusses the role and function of children's play so as to arrive at an understanding of the best relation between play and serious activity in the pioneer organization. The function of role playing is given the most attention. It is suggested that children learn and practice new forms of behavior by playing roles when they are unable to assume the actual duties of their heroes. Also play is said to help create motivation when tasks are uninteresting but such use of play is not necessary when children are motivated by the task itself.—H. Pick.

6430. Morino-Abbele, Francesca. (Inst. Psychology U. Florence, Italy) Le basi costruttive dei processi logicomatematici del pensiero. [The constructive basis of logicomathematical thought processes.] *Boll. Psicol. appl.*, 1961, No. 45-46, 3-34.—Preliminary results of a continuing research project are presented. 9 6-year-old children in the 1st year of elementary school were studied in a "game" situation similar to that used by Piaget and Dienes. So unconsciously acquired mathematical concepts after an initial phase of unorganized activity, and a sense of "discovery" was observed to accompany the concept learning. (22 ref.)—R. J. Kaplan.

6431. Piaget, Jean, & Bang, Vinh. Recherches sur le développement des perceptions: XLI. L'évolution de l'illusion des espaces divisés (Oppel-Kundt) en présentation tachistoscopique. [Research on the development of perceptions: XLI. The evolution of the illusion of divided spaces (Oppel-Kundt) with tachistoscopic presentation.] *Arch. Psychol., Geneva*, 1961, 38(Whole No. 149), 1-21.—Data are presented on comparisons of 5-7 year old children and adults with free and also with tachistoscopic presentation of the materials that create the illusion of divided spaces. The data are discussed in relation to a theoretical framework, presented in Piaget's book *Les Mécanismes Perceptifs*.—H. C. Triandis.

6432. Piaget, Jean; Matalon, Benjamin, & Bang, Vinh. Recherches sur le développement des perceptions. XLII. L'évolution de l'illusion dite "verticale-horizontale" de ses composantes (rectangle et équerre) et de l'illusion de Delboeuf en présentation tachistoscopique. [Research on the development of perceptions: XLII. The evolution of the hori-

zontal-vertical illusion from its constituent elements and the Delboeuf illusion in tachistoscopic presentation.] *Arch. Psychol., Geneva*, 1961, 38 (Whole No. 149), 23-68.—An examination of temporal effects obtained with tachistoscopic presentation of the materials that create the horizontal-vertical and Delboeuf illusions. Data are presented from 5- to 7-year-old children and adults.—*H. C. Triandis*.

6433. Piaget, Jean, & Morp, Albert. *Recherches sur le développement des perceptions: XLIII. La comparaison des verticales et de horizontales dans la figure en équerre.* [Research on the development of perceptions: XLIII. The comparison of the vertical and horizontal lines in the L-shaped (with equal size of lines) figure.] *Arch. Psychol., Geneva*, 1961, 38 (Whole No. 149), 69-88.—The vertical line in the L-shaped (with equal size of lines) figure is always overestimated. Significant variations in the overestimation are shown to be a function of age, practice, and the order of presentation of the figures.—*H. C. Triandis*.

6434. Taguchi, T. (Fukushima U.) *A study of the structure of colloquial Japanese from the standpoint of developmental psychology.* *Jap. J. Psychol.*, 1962, 33(4), 193-201.—A study of the free speech patterns of preschool and school children was conducted and analyzed. Among other findings, it was noted that sentence length in spoken language is short and that the ratio of complex sentences gradually increases with age. It was also concluded that a period of significant speech development in Japanese children occurs between the 3rd and 5th grades.—*A. Barclay*.

6435. Webster, Elizabeth Jane. (Columbia U.) *Fears and worst happenings as reported by southern children.* *Dissert. Abstr.*, 1962, 22(8), 2872.—*Abstract*.

6436. Zimny, George H., & Weidenfeller, Edward W. (Marquette U.) *Effects of music upon GSR of children.* *Child Develpm.*, 1962, 33(4), 891-896.—2 excerpts of musical selections, one judged to be exciting and the other to be calming, were played to kindergarten, 3rd- and 6th-grade children, while continuous GSR measures were taken. It was hypothesized that the exciting music would produce a decrease and the calming music an increase in electrical skin resistance. The hypothesis was confirmed. In comparison with college Ss and psychotics, the children were more responsive, evidenced a shorter latency and a greater magnitude of response to the exciting music, and a greater magnitude but not shorter latency to the calming music.—*W. J. Meyer*.

6437. Zinchenko, V. P., Chzhi-tsin, Van, & Tarakanov, V. V. (Inst. Psychology APN RSFSR) *Stanovlenie i razvitie pertseptivnykh deistvii.* [Formation and development of perceptive activity.] *Vop. Psikhol.*, 1962, No. 3, 1-14.—A distinction is made between perceptual and recognition behavior, the former being the activity which occurs when a person explores and becomes acquainted with a new object. Recognition behavior involves the identification of previously known objects. These 2 kinds of behavior are ordinarily mixed in real life situations. The present study examines eye movements as they occur with children from 3-6 years in age under these 2 kinds of tasks. Age trends are noted for both ac-

tivities. In a perceptual task eye movements conform more to the contour of the object and increase in rate as age increases. In a recognition task the younger children's eye movements are in closer correspondence to the contour of the object while the older children don't tend to scan the whole object.—*H. Pick*.

Learning

6438. Bear, Donald M. (U. Washington, Seattle) *A technique of social reinforcement for the study of child behavior: Behavior avoiding reinforcement withdrawal.* *Child Develpm.*, 1962, 33(4), 847-858.—"A talking cowboy puppet was used to study the development of children's behavior to produce and maintain his attention, a stimulus event which could function as a social reinforcer. Using an aversive schedule of attention withdrawal, behaviors were produced in children to produce and maintain the puppet's attention, apparently to the degree that these children typically sought attention in the nursery school setting. One child who would respond only minimally to produce the puppet's attention alone was caused to respond vigorously and efficiently when the puppet's attention was made discriminative for other reinforcements (trinkets).—*W. J. Meyer*.

6439. Clarkson, Frank Edward. (Clark U.) *A developmental analysis of the performance of children and adults on a maze learning and an embedded figures task.* *Dissert. Abstr.*, 1962, 22(7), 2472-2473.—*Abstract*.

6440. Degtiar', E. N. (Pavlov Inst. Physiology, Leningrad, USSR) *Rol' razlichnykh analizatorov v vyrobotke sistemnosti.* [Role of different analyzers in the elaboration of systemic patterns.] *Zh. vyssh. nervn. Deiatel.*, 1962, 12(4), 602-605.—Eye-lid CRs were formed in 68 Ss (5½ yr.-7½ yr.) in response to systems of visual, auditory, and verbal stimuli. The systemic pattern was formed more rapidly in response to direct than to verbal stimuli. It was formed sooner when 2 analyzers were involved. Introduction of the motor analyzer speeded the formation of the systemic pattern of temporary connections.—*A. Cuk*.

6441. Di Vesta, Francis J., & Stover, Donald O. *The semantic mediation of evaluative meaning.* *J. exp. Psychol.*, 1962, 64(5), 467-475.—2 experiments were carried out using 5th-grade children. In each the 1st phase consisted of assign development by conditioning signs with evaluative meaning to neutral nonsense syllables. Phase 2 involved associating the assign with a neutral nonsense figure. In the 3rd phase Ss rated the nonsense figure on 3 semantic differential evaluative scales. Ratings of the figures labelled with conditioned assigns corresponded with the evaluative meaning of signs associated with the assigns.—*J. Arbit*.

6442. Epstein, Ralph. (Ohio State U.) *Verbal conditioning in children as a function of sex-role identification, internal control, and need for approval.* *Dissert. Abstr.*, 1962, 22(7), 2462.—*Abstract*.

6443. Jeffrey, Wendell E., & Skager, Rodney W. (U. California, Los Angeles) *Effect of incentive conditions on stimulus generalization in children.* *Child Develpm.*, 1962, 33(4), 865-870.—The gra-

dients of spatial generalization of 7-year-old children were examined under conditions of high and low incentives. Comparison groups of 10-year-old children were also used. Generalized responses for the young high incentive groups were similar to those for both incentive groups among the older children. "Thus the hypothesis that spatial generalization gradients for the younger Ss could be affected by the manipulation of incentive conditions is supported."—*W. J. Meyer.*

6444. Kendler, Tracy S., & Kendler, Howard H. (Barnard Coll.) Inferential behavior in children as a function of age and subgoal constancy. *J. exp. Psychol.*, 1962, 64(5), 460-466.—"Children of two age levels, namely 5-6 and 8-10 yr., were presented with a task that required the linkage of two out of three discretely acquired segments of behavior. The solution consisted of making an initial choice between two of the segments (on correct and the other incorrect) and then integrating the product of that choice with the third segment. The solutions could be direct (inferential), i.e., that goal achieved without any unnecessary responses. They could be indirect, i.e., the goal achieved after the repetition of previously acquired but presently irrelevant behavior segments." The results are discussed in terms of age and the method of solution and in terms of the variables determining the integration which is produced.—*J. Arbit.*

6445. Myers, N. A., & Myers, J. L. (U. Massachusetts) Effects of secondary reinforcement schedules in extinction on children's responding. *J. exp. Psychol.*, 1962, 64(6), 586-588.—"Kindergarten children were trained in a free operant situation with candy as a reward. A group receiving 20% buzzer presentations in training, and shifted to 100% buzzer in extinction responded significantly more than similarly trained groups shifted to 20% buzzer and 0% buzzer in extinction. This 100% buzzer group also performed better than a group which was similarly extinguished but which had not experienced the buzzer in training. It was concluded that a secondary reward effect was demonstrated."—*J. Arbit.*

6446. Ringness, Thomas A. (U. Wisconsin) GSR during learning activities of children of low, average, and high intelligence. *Child Developm.*, 1962, 33(4), 879-889.—3 groups of 40 Ss each, equally divided as to sex, were given classroom-like tasks to learn, i.e., arithmetic. During the entire learning sessions GSR reactions were recorded. The groups were differentiated according to WISC IQ: 50-80, 90-110, and 120 or over. The hypothesis that the mentally retarded would be more threatened by the learning tasks and thus evidence more autonomic reactivity was not supported. The brighter children showed the greatest reactivity. Girls were more reactive than boys. Certain disadvantages in the tasks are explored.—*W. J. Meyer.*

6447. Ryan, Thomas J., & Cantor, Gordon N. (State U. Iowa) Response speed in children as a function of reinforcement schedule. *Child Developm.*, 1962, 33(4), 871-878.—2 groups of 20 preschool children were used in a lever pulling task. Group 100 received a marble for each pull while Group 50 received a marble on only $\frac{1}{2}$ the trials. In terms of movement speed, Group 50 responded with increasing speed relative to Group 100. This

was interpreted as showing that nonreward increased drive. In terms of starting time, Group 100 was initially superior but there were decreasing differences over trials. Competing responses, motivationally and/or associatively produced, may have produced the latter finding.—*W. J. Meyer.*

6448. Schusterman, Ronald J. (Yerkes Lab. Primate Biology) The use of strategies in 2-choice behavior of children and chimpanzees. *J. comp. physiol. Psychol.*, 1963, 56(1), 96-100.—Adult chimpanzees and 3 groups of human children (ages 3.5, 5.1, and 10.8) were tested in a 2-choice situation consisted of a 50:50 probability series. Chimpanzees and the 2 older groups of children were tested with and without initial 100% training. Approximately $\frac{1}{2}$ the Ss in each group received Short-Run (conditional probability .39) and the other $\frac{1}{2}$ Long-Run (conditional probability .64) sequences. Initial training and series contingencies had their strongest effects on behavior of 10-yr.-old children. Chimpanzees and 3-yr.-old children showed a strong win-stay, lose-shift strategy. This strategy was weaker in 5-yr.-old children. Under Short-Run conditions 10-yr.-old children showed greater persistence with an unsuccessful choice than 5-yr.-old children. Results indicate that choice of strategy and effect of patterns of reinforcing events on strategy interact with maturational and species variables.—*Journal abstract.*

6449. Spiker, Charles C., & Norcross, Kathryn J. (State U. Iowa) Effects of previously acquired stimulus names on discrimination performance. *Child Developm.*, 1962 33(4), 859-864.—"The transfer discrimination learning performance of three groups of preschool children was compared. The groups differed in kind of pretraining experience with the pictures of the transfer task. Group N had learned discrete names for the two pictures. Groups D₁ and D₂ had learned appropriately to say 'same' or 'different' when presented with settings of these pictures. Group D₁ had been shown the pictures in simultaneous settings while group D₂ had responded following successive, single presentations of the stimuli. Analysis of correct responses in 30 transfer trials indicated that in the later stages of learning group N was significantly superior to either group D₁ or D₂. Possible hypotheses to explain these results were stated."—*W. J. Meyer.*

6450. Staats, Arthur W., & Staats, Carolyn K. (Arizona State U.) A comparison of the development of speech and reading behavior with implications for research. *Child Developm.*, 1962, 33(4), 831-846.—Application of operant conditioning principles to the acquisition of speech and reading suggest that both behaviors are quite similar. The greater difficulty in acquisition of reading is attributed to the general inadequacy of available reinforcers and the schedules with which these reinforcers are used. Several researchable problems are suggested.—*W. J. Meyer.*

6451. Switzer, Janet. (Clark U.) Developmental differences in place and name sequence learning in normal, hyperactive, and hypoactive eight and twelve year old boys. *Dissert. Abstr.*, 1962, 22(7), 2482.—*Abstract.*

6452. Wohlwill, Joachim F. (Clark U.) The learning of absolute and relational number dis-

criminations by children. *J. genet Psychol.*, 1962, 101(2), 217-228.—The learning of a generalized relational discrimination on the dimension of number was compared with that of an absolute discrimination, to test the hypotheses that as the mode of representation of the dimension varies from perceptual to abstract to symbolic, speed of relational learning decreases relative to absolute, and that the difference between these 2 tasks decreases with age. Results confirmed only the 1st hypothesis, age differences being limited largely to the symbolic condition, where the trend was towards an increasing dominance of absolute responses with age.—*Author abstract.*

Abilities

6453. Brenner, Anton, & Morse, Nancy C. (Mer-rill-Palmer School, Detroit, Mich.) **The measurement of children's readiness for school.** *Pap. Mich. Acad. Sci. Arts Lett.*, 1956, 41, 333-340.—Data were collected over an 18-month period on a group of 16 private-school pupils who were studied from the time they entered kindergarten with regard to the relationship between one criterion of readiness for school (teacher's rating of children based on their functioning in the 1st grade) and various measures of the children's maturity (including both physical- and mental-maturity indicators taken 6 months or more before the teacher's ratings). Results suggest that certain measures of mental maturity made at the beginning of the kindergarten year "are good predictors of readiness for school."—*S. J. Lachman.*

6454. Gouin Décarie, Thérèse. (U. Montréal, Canada) **Intelligence et affectivité chez le jeune enfant.** [Intelligence and affectivity in the young child.] Neuchâtel, Switzerland: Delachaux & Niestlé, 1962. 215 p.—The aim of this research is to establish the connection between the formation of what the psychoanalysts call "object-relations" in the affective development of the young child and the developmental stages in the field of intelligence found by Piaget through his analysis in 1937. At the same time this investigation would also introduce experimental control into the domain of psychoanalysis. 90 Ss were studied from the age of 3 to 20 months. The working hypothesis was that the stages of Piaget and his school would correspond to the phases of the psychoanalysts. As a 3rd instrument Griffiths' Mental Development Scale was applied. The conclusions state that in spite of some agreement between the 2 theories there are also some oppositions and contradictions. However, the practical conclusions arrived at is "the necessity of bearing in mind the cognitive processes in the study of the affective phenomena and the affective modalities in the study of intellectual phenomena." (206 ref.)—*M. Haas.*

6455. Gréco, Pierre, & Morf, Albert. **Structures numériques élémentaires.** [Elementary numerical structures.] Paris, France: Presses Universitaires France, 1962. 232 p. NF 9.—The development of rudimentary numerical concepts in children is explored in several ways. Gréco provides data from genetic studies on the conservation and nonconservation of number in collections of identical objects with varying degrees of structure. He also describes experiments designed to pinpoint the age at which commutability of terms in simple addition becomes possible. Morf reports 2 experiments concerned with

the degree of serial dependency existing between small, whole numbers used in a stable fashion by children, and the essential factors determining their progressive organization.—*G. H. Mowbray.*

6456. Hawkins, Alice Marie Swallow. (State U. Iowa) **Verbal identification of stimulus components in ambiguously named compounds.** *Disser. Abstr.*, 1962, 22(8), 2882-2883.—*Abstract.*

6457. Lovell, K., Healey, D., & Rowland, A. D. (U. Leeds, England) **Growth of some geometrical concepts.** *Child Developm.*, 1962, 33(4), 751-767.—"Twelve experiments, taken from [Piaget, Inhelder, & Szeminski's] *The Child's Conception of Geometry* [see 34: 8354] and sometimes slightly adapted, were undertaken by a population of English Primary and E.S.N. [educationally subnormal] Special School children. The findings broadly confirm those of Piaget et al., although the numbers of children at the various stages are not always what one might expect from the results obtained from the Geneva children. Once again, it is found that 14- to 15-year-old E.S.N. children have the operational mobility of about an average 7½-year-old. The educational implications of two experiments are briefly discussed."—*W. J. Meyer.*

6458. Maw, Wallace H., & Maw Ethel W. (U. Delaware) **Selection of unbalanced and unusual designs by children high in curiosity.** *Child Developm.*, 1962, 33(4), 917-922.—5th-grade children were rated by their teachers, their peers, and themselves in terms of curiosity. Comparisons were made of high- and low-curiosity children on a paper-and-pencil test consisting of 20 pairs of geometric figures and symbols differing in familiarity and balance. Children in the high-curiosity group chose unbalanced or unusual designs significantly more often than did children in the low-curiosity group.—*W. J. Meyer.*

6459. Yost, Patricia A., Siegel, Alberta Engvall, & Andrews, Julia McMichael. (Pennsylvania State U.) **Nonverbal probability judgments by young children.** *Child Developm.*, 1962, 33(4), 769-780.—"Probability judgments made by 4- and 5-year-old children have been observed in two situations. In the situation in which controls are introduced, amount of reinforcement is increased, and an opportunity for nonverbal decision-making is presented, children tended to make the correct responses significantly more frequently. This result throws doubt on Piaget's contention that young children cannot understand probability, and it demonstrates the importance of using adequately controlled behavioral (nonverbal) situations with suitable reinforcements in studying the cognitive capabilities of young children."—*W. J. Meyer.*

Personality

6460. Abel, Harold, & Sahinkaya, Rezan. (U. Nebraska) **Emergence of sex and race friendship preferences.** *Child Developm.*, 1962, 33(4), 939-943.—"This study examined the emergence of sex and race friendship preferences expressed by preschool children. The sample consisted of 48 4- and 5-year-old white, upper-middle class children attending the University of Nebraska Child Development Laboratory. Photographs of Negro and white boys and girls were used to develop two series of pictures, one for sex and one for race preference. . . . Sex preferences

emerged earlier than race preferences. Race preference is not evident in the 4-year-old group, but is displayed among the 5-year-olds. Both 4- and 5-year-old boys and girls prefer their own sex, but only boys show a definite preference of their own race."—*W. J. Meyer.*

6461. Barber, William Howard. (St. Louis U.) **Social interaction and severity of emotional disturbance.** *Dissert. Abstr.*, 1962, 22(9), 3264-3265.—*Abstract.*

6462. Buhler, Charlotte. (U. Southern California Medical School, Los Angeles) **Genetic aspects of the self.** *Ann. N. Y. Acad. Sci.*, 1962, 96(3), 730-764.—Problems of definition, ontogenesis, frame of reference, and normal and pathological development plague discussions of the self. The self has both core and phenomenal aspects. The development of trust and opportunity for actualization is central to self development. The first response to oneself is perceptual. At 2, the conflict for autonomy begins; at 4, ideals develop. Adolescence is accompanied by a great crisis of self-identity. Identification is in early life by desire, later by accomplishment. Self-assessment is important at the climacteric. Successful accomplishment leads to a sense of fulfillment. Death itself may be regarded as the fulfillment of a fulfilling life. (66 ref.)—*B. S. Aronson.*

6463. Clarke, H. Harrison, & Stratton, Stephen T. (U. Oregon) **A level of aspiration test based on the grip strength efforts of nine-year-old boys.** *Child Developm.*, 1962, 33(4), 897-905.—"This study was designed primarily to investigate methods of grouping 9-year-old boys into defined categories according to their levels of aspiration as interpreted from maximum grip strength efforts. In this process, a number of methods of grouping by performance and aspiration responses were examined; each of these was described and the inter-relations with initial grip strength performances and other responses were determined." The best measure was the 2nd aspiration discrepancy defined as the difference between 2nd level of aspiration and 2nd performance score.—*W. J. Meyer.*

6464. Corman, L. (Faculty Medicine, Nantes) **Le test PN: Pattenoire.** [The PN Test: Black-paw.] Paris, France: Presses Universitaires France, 1961. 324 p. NF 21.—The PN Test is a children's projective technique which, like the CAT, uses the animal on which the child projects his attitudes, thoughts, and conflicts. The author emphasizes the defenses of the ego and introduces a new method of administration which he calls "preference-identification." After the usual themes are given, the S is required to express his affective preferences and to identify himself with one of the protagonists (little pigs) in the picture. The test has been standardized on 200 well adjusted and maladjusted children. The 18 thematic cards are obtainable from Le Centre de Psychologie Appliquée, Paris.—*V. Sanua.*

6465. Cox, F. N. (U. Melbourne, Victoria, Australia) **An assessment of the achievement behavior system in children.** *Child Developm.*, 1962, 33(4), 907-916.—Large samples of 10-11-year-old boys responded to TAT Card 1 which was analyzed on a 4-point scale of achievement. The ratings were significantly associated with school test performance, a measure of general anxiety, and a measure labeled

Household Duties and Responsibilities. In a 2nd study, TAT Card 1 and 3 Michigan Picture Test cards were rated for achievement motivation. This index was related to general anxiety and educational level. It was concluded that these achievement measures were tapping a behavior system or complex combination of drive and habit variables.—*W. J. Meyer.*

6466. Cox, F. N. (U. Melbourne, Australia) **A note of relationships between the Yale Anxiety and Lie scales.** *Educ. Psychol. Measmt.*, 1962, 22(4), 759-762.—The Yale General Anxiety and Test Anxiety scales and the Yale Lie Scale were administered to 848 Australian children. Very high, negative *r*'s were obtained between the General and Anxiety scales with the Lie scale. The author agrees with Sarason in concluding: when the Lie scale is used as a continuous variate it operates like a negatively scored anxiety questionnaire, in which the number of "no" answers instead of the "yes" answers are counted.—*W. Coleman.*

6467. Fancher, Edwin C. (Washington Square Consultation Cent.) **A comparative study of American and Hungarian developmental trends with the Szondi Test.** *J. genet. Psychol.*, 1962, 101, 229-253.—Developmental trends as reflected on the Szondi Test are presented for several American age samples between 3-17 years old, and compared with trends found by Szondi with Hungarian children and adolescents. Similarities between the 2 groups are found for the h, s, hy, k, p, and m factors; and these common trends are compared with studies by other investigators with the Rorschach test. Differences between the Szondi patterns of the American and Hungarian samples are discussed in terms of cultural variables.—*Author abstract.*

6468. Fischer, William Frank. (U. Connecticut) **Sharing in preschool children as a function of amount and type of reinforcement.** *Dissert. Abstr.*, 1962, 22(8), 2871-2872.—*Abstract.*

6469. Gibson, H. B. (U. London, England) **Acquiescence and suggestibility in children.** *Educ. psychol. Measmt.*, 1962, 22(4), 737-746.—An acquiescence score was obtained for 218 children who took the Junior Maudsley Personality Inventory. The Body Sway test was administered to 76 of the group. Since acquiescence declines significantly with age, this regression was partialled out for comparing performance on the 2 measures. For boys there was a significant positive *r* between acquiescence and suggestibility as measured by the Body Sway test. However, the *r* for girls was not significant.—*W. Coleman.*

6470. Graziano, Anthony Michael. (Purdue U.) **A factor analytic investigation of the concept of personality rigidity.** *Dissert. Abstr.*, 1962, 22(7), 2465.—*Abstract.*

6471. Hudgins, Bryce B., Smith, Louis M., & Johnson, Thomas J. (Washington U., St. Louis, Mo.) **The child's perception of his classmates.** *J. genet. Psychol.*, 1962, 101(2), 401-405.—It was hypothesized that perceived arithmetic ability is significantly and positively related to: (a) perceived general ability, (b) acceptance as arithmetic partner, and (c) general social acceptance. The 4th hypothesis was that coefficients of contingency would diminish in the order in which the above hypotheses were

stated. Data were collected by the use of 3 sociometric questionnaires administered to a total of 820 intermediate grade girls and boys enrolled in either urban or suburban public schools. Each of the hypotheses was supported.—*Author abstract.*

6472. Jahoda, Gustav. (Glasgow U.) **Development of Scottish children's ideas and attitudes about other countries.** *J. soc. Psychol.*, 1962, 58(1), 91-108.—A random sample of 144 children aged 6-11 was drawn from 2 Glasgow middle and working class schools respectively, and interviewed. The emergence of children's awareness of other countries and the changes in their likes and dislikes were traced. Preferences began with the exotic, moving later towards the familiar; antagonisms at first followed the alignments of the past war, shifting by 10 or 11 to those of the east-west conflict. Children's images of America and Russia were studied in detail, with special reference to the effect of sputniks and the moon rocket.—*Author abstract.*

6473. Lynn, D. B., & Sawrey, W. L. (U. Colorado School Medicine) **Sex differences in the personality development of Norwegian children.** *J. genet. Psychol.*, 1962, 101(2), 367-374.—Ss were 80 mother-child pairs from a typical sailor district in Norway. The evidence of sex differences was derived from a structured doll-play procedure with the child, having the child draw a family, and from an interview with each mother. A significantly higher proportion of girls than boys drew the mother figure first, largest, and in most detail. A significantly higher proportion of girls than of boys chose the mother-doll more often than the father-doll. Girls chose the boy-doll significantly more often than they chose the girl-doll. The boys chose the boy-doll and the girl-doll almost equally often. The results were discussed in terms of parental identification in boys and girls.—*Author abstract.*

6474. Lynn, Rosalie. (U. Denver) **Sex-role preference and mother-daughter fantasies in young girls.** *Dissert. Abstr.*, 1962, 22(11), 4084.—*Abstract.*

6475. McNeil, Elton B. (U. Michigan) **Social class and the expression of emotion.** *Mich. Acad. Sci. Arts Lett.*, 1956, 41, 341-348.—The hypothesis that middle-class persons take a "conceptual" approach to most of their problems, whereas lower-class persons are "motoric" in their orientation to the world about them was investigated. "Conceptual" refers to symbolic rather than spontaneous contact with the environment; "motoric" implies immediate, bodily expressions of emotion—striking when angry, jumping when joyous, etc. "Middle-class children were able to convey their emotions in a free and dilated manner when expressing themselves conceptually, but were severely constricted when using the body as the vehicle. The reverse findings appeared for lower-class children." Extending the theory to paranoid schizophrenics: "Analysis of the content of delusions revealed nearly twice as many conceptual manifestations for middle-class as for lower-class patients."—*S. J. Lachman.*

6476. Rosenberg, Morris. (National Inst. Mental Health) **The dissonant religious context and emotional disturbance.** *Amer. J. Sociol.*, 1962, 68(1), 1-10.—Contextual dissonance refers to a situation in which the individual's social characteristics differ

from those of the population by which he is surrounded. Data from a sample of high school students suggest that children reared in a dissonant religious context are somewhat more likely to have low self-esteem, to manifest psychosomatic symptoms of anxiety, and to experience depressive affect. Experiences of prejudice appear to contribute to these results. Among those in dissonant contexts, children reared in "culturally dissimilar" neighborhoods appear more likely than others to manifest symptoms of emotional disturbance.—*R. M. Frumkin.*

6477. Stark, Siegfried. (Falkstr. 4, Essen-Holsterhausen, Germany) **Symptom und Geschwisterposition im Spiegel einer Verhaltensbeobachtung.** [Symptom and sibling con-constellation in the mirror of an observation of behavior.] *Prax. Kinderpsychol. Kinderpsychiat.*, 1962, 11(5), 177-187.—In 10 kindergartens, questionnaires with lists of (a) 5 family constellations and (b) symptoms of behavior were distributed. 1006 children were studied. Generally, a sibling constellation with both sexes is better; and, as expected, an "exposed" position as oldest, youngest, or only child causes more problems.—*E. Katz.*

6478. Vogel, Lillian Brown. (Claremont Graduate School) **Anti-social behavior in boys of early elementary school age.** *Dissert. Abstr.*, 1962, 22(9), 3262.—*Abstract.*

6479. Zelig, Rose. (14256 Ventura Blvd., Sherman Oaks, Calif.) **Children's attitudes toward annoyances.** *J. genet. Psychol.*, 1962, 101(2), 255-266.—300 12-year-old children were asked to list all things that annoy, irritate, and bother them, and the material was arranged in separate tests for boys and girls. These tests were given to 285 other children of the same age. The children's reactions to items under health and appearance, hobbies and interests, food, games and amusements, and fears are reported here. Significantly more girls "hate much" to have accidents, scarlet fever, an operation, headaches, stomach aches, to get hurt, be dirty, wear torn clothing, or drink milk. Significantly more boys "hate much" to go to operas, take piano lessons, go to concerts, plant flowers. The findings indicate that there are many annoying situations in children's daily experiences. Girls are more often and more extremely annoyed than boys. Oversensitiveness to an overstimulating and complex environment may contribute to children's emotional instability and unnecessary annoyances should be avoided.—*Author abstract.*

Parent-Child Relations

6480. Apperson, Olive Louise Behrens. (U. Denver) **A comparison of parental attitudes with certain characteristics of their children considered relevant to adjustment.** *Dissert. Abstr.*, 1962, 22(11), 4078.—*Abstract.*

6481. Buxbaum, Edith. **Understanding your child: A guidebook for parents.** New York: Grove, 1962. xv, 204 p. \$.50 (paper).—A paperback edition, originally published in 1949 by International Universities Press as *Your Child Makes Sense*.—*E. Borrowman.*

6482. Casler, Lawrence. (Brooklyn Coll.) **Maternal deprivation: A critical review of the literature.** *Monogr. Soc. Res. Child Developm.*, 1961, 26

(2), 64 p.—Questioning the thesis that emotional, physical, and intellectual malfunctioning in institutionalized children is attributable to the deprivation of maternal love, the author demonstrates that it is also possible to interpret results of relevant studies in the light of the hypothesis that this malfunctioning is due to stimulation deprivation. Loss of maternal love is shown probably to have ill effects only after specific affective responsiveness has been achieved. Recent neuroanatomical findings, animal studies, human studies, and the cultural approach are examined to explain why perceptual stimulation is apparently crucial to normal development. (268-item bibliogr.)—*J. S. Braun.*

6483. Clifford, Edward. (Child Research Council, Denver, Colo.) **Expressed attitudes in pregnancy of unwed women and married primigravida and multigravida.** *Child Developm.*, 1962, 33(4), 945-951.—"3 groups of pregnant women, 50 unwed, 50 married primigravida and 50 married multigravida were given the Pregnancy Research Questionnaire (PRQ)." The groups differ among themselves on a variety of dimensions. There was a significant tendency for psychosomatic anxiety indices, nausea, and sleep disturbances as recalled states before pregnancy to be related to the appearance of these factors during pregnancy. The stress of pregnancy apparently accentuates predispositional factors present before pregnancy.—*W. J. Meyer.*

6484. Cox, F. N. (U. Melbourne, Victoria, Australia) **An assessment of children's attitudes towards parent figures.** *Child Developm.*, 1962, 33(4), 821-830.—The development of positive social relationships is related to positive attitudes towards the same-sex parent. To test the hypothesis a measure of attitude toward same-sex parent was developed. The measure (responses to 6 TAT cards) was shown to have S reliability, high interscorer agreement, and validity. A significant relationship between attitude toward same-sex parent and peer acceptance was found.—*W. J. Meyer.*

6485. Dittrichová, J. (Inst. Care Mother & Child, Prague, Czechoslovakia) **Nature of sleep in young infants.** *J. appl. Physiol.*, 1962, 17, 543-546.—Criteria of ocular reactions, bodily activity, and respiration were used to distinguish 4 stages: deep sleep, sleep with closed eyes but greater bodily activity and irregularity of respiration, light sleep in transition to waking, and the waking state. It is not the duration of deep sleep which decreases in early life, as usually reported, but the duration of the transitional state.—*D. R. Peryam.*

6486. Grinder, Robert E. (U. Wisconsin) **Parental childrearing practices, conscience, and resistance to temptation of sixth-grade children.** *Child Developm.*, 1962, 33(4), 803-820.—In a follow-up study, 70 boys and 70 girls—from the original group described by Sears, Macoby, and Levin (see 31: 4442) when the children were 5 or 6 years old—were tempted to transgress rules. Specific predictions were derived from Sears' socialization antecedents. High standards for neatness and obedience were related to boys' resistance to temptation; among girls, resistance to temptation was associated with sex training and pressures in terms of weaning and bowel training. Resistance to temptation at age 11-12 was associated with admission of transgressions at age

5-6 in boys and voluntary confession at age 5-6 in girls.—*W. J. Meyer.*

6487. Hess, Robert D., & Torney, Judith V. (U. Chicago) **Religion, age, and sex in children's perceptions of family authority.** *Child Developm.*, 1962, 33(4), 781-789.—The perception of authority structure within the family was investigated using 1861 children, ages 7-15. "Girls reported the father to be boss in the family significantly less frequently than boys and reported both parents were equal in power significantly more frequently. The percentage of children reporting father as boss decreased in both sexes with age, while the percentage of children reporting both as boss increased. There was no difference in children's perception by social class." Catholic children reported a single parent as boss more frequently than Protestant children.—*W. J. Meyer.*

6488. Huntingford, Peter J. (St. Thomas Hosp., London, England) **Attitudes of doctors and midwives to breast-feeding.** *Developm. Med. Child Neurol.*, 1962, 4(6), 588-594.—Questionnaire findings on 458 replies received (76% return) from general practitioners, obstetricians, pediatricians, midwives, and health visitors are reported. "Most of these workers consider that breast-feeding is valuable, particularly for the psychological well-being of both mother and child, and that it should be the method of choice for feeding a baby provided the mother is willing and she is helped in a sympathetic way to establish lactation. The factors responsible for the present high rate of failure of women to breast-feed include modern social conditions, indifference of both mothers and attendants to breast-feeding, and lack of agreement on the details of its management."—*T. E. Newland.*

6489. Hurley, John R., & Laffey, John J. (Michigan State U.) **Influence of a conventional child psychology course upon attitudes toward children.** *Pap. Mich. Acad. Sci. Arts Lett.*, 1957, 42, 299-306.—The "degree to which rejecting and overprotecting attitudes toward children were altered during a conventional child psychology course" was investigated via measures of rejection and overprotection described. "Comparison of the pre- and post-course scores of 19 college students on these measures disclosed a significant reduction, both in terms of average score and in terms of number of students obtaining lower scores, in the rejection index at the course end. No corresponding change was found in the overprotection index." Evidence supporting the view that overprotection represents, in part, a more indirect mode for the expression of rejection was provided by the large positive correlation between the rejection and overprotection scores.—*S. J. Lachman.*

6490. Keller, Elvin Duwayne. (State U. Iowa) **Parents' self-reports, children's representations of parent behavior, and masculinity in young boys.** *Dissert. Abstr.*, 1962, 22(8), 2872.—*Abstract.*

6491. Kempler, Hyman Leopold. (Purdue U.) **Parental permissiveness for aggression and parental identification as determinants of within-sex differences in cognitive behavior.** *Dissert. Abstr.*, 1962, 22(7), 2466-2467.—*Abstract.*

6492. McDonald, R. L. (Medical Coll. South Carolina) **Intrafamilial conflict and emotional**

disturbance. *J. genet. Psychol.*, 1962, 101(2), 201-208.—The purpose of this study was to assess the differences between parents of emotionally disturbed children and the parents of normal children with respect to self-descriptions, attitudes toward each other, and attitudes toward their children by means of the Leary Interpersonal Check List. The parents of 10 emotionally disturbed children free of organic damage, of at least normal intelligence, and of elementary school age, rated self, spouse, child, and ideal as did the parents of 10 normal children who were matched with the disturbed children according to sex, age, and intelligence. To insure matched groups, the educational status of the parents and the socioeconomic status of the fathers were also controlled. The results indicated that the parents of the disturbed children (a) rejected their own behavior more often than did parents of normal children; (b) described their children as distrustful, self-effacing, and dependent more frequently than parents of normal children; (c) devaluated the personalities of their spouses and children more frequently than parents of normal children; and (d) were more frequently disidentified with their children than were parents of normal children. The parents of disturbed children also tended to disidentify with each other more than did parents of normal children.—*Author abstract.*

6493. Nichols, Robert C. (Purdue U.) A factor analysis of parental attitudes of fathers. *Child Developm.*, 1962, 33(4), 791-802.—"A factor analysis of 25 scales of the Parental Attitude Research Instrument for fathers yielded five factors, which were surprisingly comparable to factors found by other investigators in parental attitudes of mothers. Factor scales were developed to measure the three largest factors."—*W. J. Meyer.*

6494. Orinstein, Alvin S. (U. Denver) An investigation of parental child-rearing attitudes and creativity in children. *Dissert. Abstr.*, 1962, 22(11), 4085-4086.—*Abstract.*

6495. Osterkamp, A., & Sands, D. J. (239 Central Park W., NYC) Early feeding and birth difficulties in childhood schizophrenia: A brief study. *J. genet. Psychol.*, 1962, 101(2), 363-366.—Histories of 41 schizophrenic and 40 neurotic children were compared as to occurrence and length of breast feeding and as to presence of pregnancy and birth difficulties. It was found that mothers of schizophrenic children were more likely to have attempted breast feeding, but that these attempts were relatively unsuccessful. Birth and pregnancy difficulties also occurred more often in the case of schizophrenic children. Results were interpreted in terms of the mother's unconscious negative feelings towards the infants.—*Author abstract.*

6496. Rosengren, William A. (Brown U.) Social status, attitudes toward pregnancy and child-rearing attitudes. *Soc. Forces*, 1962, 41(2), 127-134.—Interviews with 63 pregnant women support the view that child-rearing attitudes are more closely related to attitudes toward pregnancy than to objective social status. Contradictory findings in this area are discussed and suggestions for further research are advanced.—*A. R. Howard.*

6497. Rosenthal, Maurice J. The syndrome of the inconsistent mother. *Amer. J. Orthopsychiat.*, 1962, 32(4), 637-644.—The problem of disobedience

is discussed in the case where the mother is inconsistent in her discipline and the child acts-out. The mother usually perceives discipline as an hostile act and feels guilty about restraining the child. Many cases can be quickly and effectively helped by alleviating the guilt of the mother in regard to placing and enforcing reasonable restrictions on their children.—*R. E. Perl.*

6498. Strunk, Peter. (Hauptstr. 5, Freiburg, Germany) Die Vater-Kind-Beziehung bei spät-heimkehrenden Vätern. [The father-child relationship with late-returnee-fathers.] *Prax. Kinderpsychol. Kinderpsychiat.*, 1962, 11(6), 194-196.—The study of 2 girls and 5 boys whose fathers were prisoners of war throws light on the theory of the role of the father in general. The fact that the early phases of the relationship were skipped caused character changes in the attitudes of both child and father.—*E. Katz.*

6499. Wharton, William Howard. (U. Florida) Description of family members by parents of maladjusted and parents of well-adjusted children. *Dissert. Abstr.*, 1962, 22(10), 3743-3744.—*Abstract.*

ADOLESCENCE

6500. Alarcón, Reynaldo. Perfil mental de los adolescentes, determinado a base de la "Prueba de Madurez Mental de California." [The mental profile of adolescents, as based on the California Mental Maturity Test.] *Educacion*, 1961, 15(24), 85-98.—The intermediate California Mental Maturity Test, Short Form, was translated and standardized by the Instituto Psicopedagógico Nacional and administered to 1542 secondary students in 3 Peruvian cities. Simple means and deviations are reported for each subtest for each year. Means rise with grade level through 5 years of schooling.—*E. B. Page.*

6501. Berger, Graenum. (Federation Jewish Philanthropies, NYC) Youth in search of significance: The illusions and ideals of belonging. *J. Jewish communal Serv.*, 1962, 38(4), 361-368.—The author discusses the problems of the adolescent in establishing guidelines in human relationships. Strengthening the family ties through resistance to the affluent society morality, reevaluation of the family philosophy by sorting the ineffective philosophies on how to bring up children for the more effective ones, understanding the demands of society upon our children and interpreting them into our relationships with them, and the reestablishment of the multi-generation family concept rather than each generation for its own view that now persists, may help bring us back to the path of belongingness and meaning for our youth.—*M. A. Seidenfeld.*

6502. Fleming, C. M. Adolescence: Its social psychology. New York: Grove (Evergreen), 1962. vii, 262 p. \$2.45 (paper).—A paperback edition of a book first published in 1948.

6503. Göppert, H. (Hauptstr. 5, Freiburg, Germany) Über die seelische Entwicklung des Jugendlichen und ihre Krisen. [On the mental development of the adolescent and its crises.] *Prax. Kinderpsychol. Kinderpsychiat.*, 1962, 11(5), 161-167.—Problems of puberty are mirrored in the symbols of fairy tales and in symbolic acts and attitudes. Painful struggles of growing into the social order

may be seen behind overt sexual manifestations.—E. Katz.

6504. Greene, James E., Sr. (U. Georgia) Alleged "misbehaviors" among senior high school students. *J. soc. Psychol.*, 1962, 58(2), 371-382.—Data concerning the status of alleged "misbehaviors" among senior high school students were obtained from a representative sample of 571 students and their 173 teachers. The findings indicate that most of the alleged misbehaviors had much less serious implications than grand jury presentments had implied. It was concluded that most instances of misbehaviors were symptomatic of an unfavorable adjustment between the student and one or more aspects of his school situation.—*Author abstract.*

6505. Hood, Joanne Jackson. (Ohio State U.) Consistency of self concept in adolescence. *Dissert. Abstr.*, 1962, 22(7), 2458-2459.—*Abstract.*

6506. Kasper, Sidney. (U. Chicago) Measurement of adjustment in adolescents: An extension of personal construct theory and methodology. *Psychol. Monogr.*, 1962, 76(6, Whole No. 525), 32 p.—A study on the validity and reliability of a modified Role Construct Repertory Test (RCRT) with some particular emphasis on its applicability to adolescent Ss. Based upon teachers' ratings or admission to selected treatment centers for evaluation or treatment, 3 groups of adolescents were assigned as: (a) well adjusted (WA), (b) poorly adjusted (PA), or clinicals (CL). The latter group contained no psychotic, brain-damaged, or intellectually deficient Ss. All groups were subjected to the same test procedures. The results obtained led to a wide variety of conclusions. Some of the more significant of these are: (a) well adjusted Ss on the whole experienced less total threat than PA and CL Ss; (b) WA Ss were less defensive than other Ss; (c) WA Ss tended to feel underrated, but not as markedly as PA Ss; (d) WA showed greater stability than other Ss. Further use of the modified RCRT in research is suggested.—*M. A. Seidenfeld.*

6507. National Committee for Children and Youth. Report of followup activities: Conference on Unemployed, Out-of-School Youth in Urban Areas. Washington, D. C.: NCCY, 1962. iii, 64 p. \$1.00.—(See 37:6508) Summary descriptions of activities and programs (classified according to city, state, and organization) reported in a follow-up to conference delegates.—*L. S. Kogan.*

6508. National Committee for Children and Youth. Social dynamite: The report of the Conference on Unemployed, Out-of-School Youth in Urban Areas. Washington, D. C.: NCCY, 1961. xiii, 265 p. \$2.00.—Summaries of speeches, work-group discussions, and recommendations from a conference held in May 1961. An appendix provides a bibliography of relevant publications and brief descriptions of over 100 programs in the United States dealing with the problem.—*L. S. Kogan.*

6509. Roach, Mary Ellen. (Michigan State U.) The influence of social class on clothing practices and orientation at early adolescence: A study of clothing-related behavior of seventh grade girls. *Dissert. Abstr.*, 1962, 22(8), 2897-2898.—*Abstract.*

6510. Saha, G. B. (Calcutta, India) Memory for visual forms. *Indian J. Psychol.*, 1961, 36(4),

155-160.—A simple experiment is described in which 25 secondary school students, aged 12-14, are tested for recent memory of 20 visual forms by a recognition method. Trials and time to reach the criterion of recognition of all 20 forms from among these and 20 other forms bore little relation to each other. Individual differences among Ss are discussed.—*J. T. Cowles.*

6511. Steinwachs, Friedrich. (Düsseldorf, Germany) Körperlich-seelische Wechselbeziehungen in der Reifezeit. [Changes in physical-mental relationships during maturity.] Basel, Switzerland: Karger, 1962. 263 p.—635 boys and girls 13-17 years of age were classified into physical groups on the basis of a large series of measurements including anthropometric measures, height, weight, and primary and secondary sex characteristics. The resulting groupings included such factors as acceleration-retardation, synchronic-asynchronic and hypoplastic-displastic characters, and variations of Kretschmer's constitutional types. Autonomic nervous system function was measured by the galvanic skin response. Psychological performance was based on the psychomotor writing curve developed by Steinwachs, the Kraepelin-Pauli curve, and physiognomic tests of Thomae. The results showed statistically significant correlations between physical types and mental function only when multiple dimensions of physique are considered. Implications for the understanding of personality and its application to the areas of school, clinical, genetic, and criminal psychology are discussed. (246-item bibliogr.)—*J. L. Yager.*

6512. Veselý, J. (Prague, Czechoslovakia) Několik poznámek k problému puberty. [Some comments concerning puberty.] *Českoslov. Psychol.*, 1962, 6(2), 143-153.—Descriptions of basic problems in the study of pubescents. Preliminary classifications of pubescents treated by psychiatrists are given. (Russian & English summaries)—*V. Bricháček.*

MATURITY & OLD AGE

6513. Britton, Joseph H., Mather, William G., & Lansing, Alice K. Expectations for older persons in a rural community: Community participation. *Rural Sociol.*, 1962, 27(4), 387-395.—Interviews with 487 adults in a small Pennsylvania community revealed little opposition to participation of older people in community affairs. Most frequently suggested were service groups, churches, lodges, and fire company.—*H. K. Moore.*

6514. Goldstein, Asher. Gerontologia bayamim hakadmonim. [Gerontology in ancient times.] *Harofé Haivri*, 1961, 34, 176-181.—Attitudes of the aged, their evaluation, and social position in the Old Testament, Talmud, and Maimonides are described and analyzed.—*H. Ormian.*

6515. Rosow, I. (Western Reserve U.) Old age: One moral dilemma of an affluent society. *Gerontologist*, 1962, 2(4), 182-191.—A discussion of current status and problems of the American aged in terms of social, economic, and value systems extant. "To see any of our social problems apart from the larger social order is the purest self-deception." The aged are classified as an underprivileged minority group of second-class citizens. Conditions which support the social position of older people from almost 100 nonindustrial societies all over the world are

analyzed and current United States care, treatment, and social role of the aged are contrasted with other comparable industrial societies. "... our values and institutions undermine the position of the aged."—*F. N. Arnhoff*.

6516. Welford, A. T. (St. John's Coll., Cambridge, England) **Changes of performance time with age: A correction and methodological note.** *Ergonomics*, 5(4), 1962, 581-582.—Presents data of an earlier article in "a more appropriate way."—*B. T. Jensen*.

SOCIAL PSYCHOLOGY

6517. Bennis, Warren G., Benne, Kenneth D., & Chin, Robert. (Eds.) (Massachusetts Inst. Technology) **The planning of change: Readings in the applied behavioral sciences.** New York: Holt, Rinehart & Winston, 1961. xiii, 781 p. \$8.50.—As a sequel to Benne and Muntyan's *Human Relations in Curriculum Change* (1951), this book of 84 readings deals with "the problems of various professions of social practice, not merely those of teachers." The editors preface each major group of readings with extensive theoretical and critical discussion of the definition and philosophy of planned social change; its roots, methods, outcomes, and control. The readings then amplify and relate these topics to the individual, family, community, and such cultural institutions as religion, public health, industry, and statesmanship.—*R. Lawner*.

6518. Berkowitz, Leonard. (U. Wisconsin) **Aggression: A social psychological analysis.** New York: McGraw-Hill, 1962. xv, 361 p. \$7.95.—Research is cited from ethnology, biology, personality theory, social psychology, sociology, and mass communication to update and modify formulations advanced by Dollard, Miller, and their colleagues in the late 1930s. Areas considered include: instinct concepts of aggression; the frustration-aggression hypothesis; situational determinants of the strength of the instigation to aggression; factors affecting inhibition of aggression; determinants of the nature and target of aggressive response to frustration; displacement of aggression in intergroup conflicts and scapegoating; aggression aroused by opposing belief systems and competitive situations; the catharsis hypothesis; the effects of violence in television, movies, and comic books; characteristics and development of aggressive personalities; and antisocial acts of aggression such as crime, suicide, and homicide.—*C. H. Miley*.

6519. Kolb, William L. (Carleton Coll.) **Images of man and the sociology of religion.** *J. scient. Stud. Relig.*, 1961, 1, 5-29.—There is a Judiac-Christian image of man which may be better suited to the ordering of sociological data than those models currently in use. The central elements of this image are: (a) the concept of the conditional will (freedom); (b) certain universal conditions of man's situation and the needs that are generated thereby; (c) the double-orientation to the nonempirical and other men (I-Thou) may be the impossible possibility, a doctrine of relativity with a dynamic; and (d) its orientation to the reason and finiteness of man.—*O. Strunk, Jr.*

6520. Krech, David; Crutchfield, Richard S., & Ballachey, Egerton L. (U. California, Berkeley) **Individual in society: A textbook of social psychology.** New York: McGraw-Hill, 1962. x, 564 p. \$7.95.—A major revision of Krech and Crutchfield's *Theory and problems of Social Psychology* (see 23: 1723). Part I discusses "three basic psychological factors—cognition, motivation, and interpersonal response traits—which shape and reflect the influence of interpersonal behavior events." Part II considers the nature, measurement, and formation of attitudes and attitude change. Part III describes the social and cultural habitat of man. It considers "the nature and uses of language, the effects of social class, status-strivings, social mobility, cultural norms, values, and beliefs." Part IV considers the group—how it is organized, the nature of group leadership, what makes a group effective, and the impact of the group on the individual.—*C. H. Miley*.

6521. Lazar, Joseph. (U. Minnesota) **A note on tension reduction in the National Railroad Adjustment Board system.** *Behav. Sci.*, 1962, 7(4), 474-476.—"This paper examines a government agency as a behavioral system and tests certain hypotheses derived from the application of systems theory to this agency." (17 ref.)—*Journal abstract*.

6522. Lindner, Robert. **Must you conform?** New York: Grove, 1961. xi, 210 p. \$.60 (paper).—A paperback edition of a book originally published in 1956.

6523. Loomis, C. P., & Loomis, Zona K. (Michigan State U.) **Modern social theories.** Princeton, N. J.: Van Nostrand, 1961. xxiv, 720 p. \$9.25.—The theoretical writings of Howard Becker, Kingsley Davis, George Homans, Robert Merton, Talcott Parsons, Pitirim Sorokin, and Robin Williams were subjected to a comparative analysis by the authors. The analytic scheme employed by them distinguished elements (belief, sentiment, rank, power), processes (tension-management, evaluation), and conditions of action (time, territoriality, and size). Each theorist was discussed individually and his ideas were analyzed in terms of how he handled each of the elements, processes, and conditions of action in social systems. A final chapter compared all 7 men in their treatment of social change. The volume contained complete bibliographies of all men except Sorokin, and the chapters on each theorist were criticized by him prior to publication.—*K. E. Davis*.

6524. Misra, Hemkanta. **Use of psychological techniques in social surveys in India.** *Indian J. soc. Wk.*, 1961, 22(3), 189, 192.—The problems of using unstructured interviews, structured questionnaires, and projective tests in the scientific investigation of a variety of subject groups are briefly discussed.—*R. Schaefer*.

6525. Oliver, R. T., & Barbara, Dominick A. **The healthy mind in communion and communication.** Springfield, Ill.: Charles C Thomas, 1962. xi, 166 p. \$.65.—While written essentially for a non-professional audience, this book covers its main topics with relative completeness in an interesting anecdotal style. Part I deals with thinking and the relationship of the individual to society, Part II with listening and the role of listening in psychotherapy, Part III with speaking and problems of ethics and values.—*S. E. Pulver*.

6526. Osgood, Charles E. *An alternative to war or surrender.* Urbana, Ill., Univer. Illinois Press, 1962. 183 p., \$1.45 (paper).—An analysis of the psychological paradoxes of human thinking under the stress of cold war and the threat of "hot" war, and a plan for reducing international tensions without surrendering to Communist pressures. The plan for "Graduated Reciprocation in Tension-Reduction" (GRIT) calls for a series of unilateral steps toward disarmament, each fully announced and accompanied by an explicit invitation to Russia to reciprocate in some form.—*C. T. Morgan.*

6527. Silberman, Leo. *Air social surveys: Principles and developments.* *Rural Sociol.*, 1962, 27 (4), 475-483.—Air photography as a tool for studies in the social sciences and what data it might supply.—*H. K. Moore.*

6528. Stone, Philip J., Bales, Robert F., Namen-wirth, J. Zvi, & Ogilvie, Daniel M. (Harvard U.) *The general inquirer: A computer system for content analysis and retrieval based on the sentence as a unit of information.* *Behav. Sci.*, 1962, 7(4), 484-498.—A description of a system for dealing with nonnumerical data. The "general inquirer" has not been intended as an automatic data processor, but as a system for aiding an investigator to organize his procedures and make them explicit. The discussion is divided into 4 topics: dictionary procedures, retrieval operations, data preparations, and special procedures for syntax identification. Specific format rules and procedural details are described in an appendix.—*J. Arbib.*

6529. Stoodley, Bartlett H. (Ed.) *Society and self: A reader in social psychology.* New York: Free Press Glencoe, 1962. xviii, 713 p. \$7.50.—A collection of recent readings in social psychology with the emphasis on social structure. There are 50 selections presented under 8 major categories: "The Concept of Social Structure," "Aspects of Psychosocial Process," "The Uses of Social Structure," "Problems of Social Nondefinition (anomie)," "Self Responses to Social Structure," "Social Aspects of Self Structure," "Self-Feedback Process," and "Postulates and Models." Each of the major sections has a brief introduction and concludes with a list of selected readings.—*E. D. Lawson.*

CULTURE & CULTURAL RELATIONS

6530. Arkoff, Abe; Meredith, Gerald, & Iwahara, Shinkuro. (U. Hawaii) *Dominance-deference patterning in motherland-Japanese, Japanese-American, and Caucasian-American students.* *J. soc. Psychol.*, 1962, 58(1), 61-66.—The research instrument was a specially devised dominance-deference questionnaire composed of 20 items. Analysis of the results indicated that sex and ethnic status were important determiners of test-score differences. The test scores of the several sex and ethnic groups were compared and discussed.—*Author abstract.*

6531. Berndt, Ronald M. *Excess and restraint.* Chicago, Ill.: Univer. Chicago Press, 1962. xvi, 474 p. \$8.95.—A study of social control of people of 4 neighboring language groups in eastern New Guinea observed (1951-53) at the time they were beginning to come under administrative control of Australia. Main topics deal with conflict and cooperation, order

and disorder, and conformity and nonconformity in an ongoing society confronted with sudden adjustment difficulties. Extensive ethnographic data detail, the social structure and organization, the mythological background of social action, and the functions served by ritual and festivals are included. Socialization practices are comprehensively presented with attention to foci of dissension sexuality, and aggression. Coercive controls are described in the context of suicide, sorcery, and warfare, plus chapters on cannibalism and intradistrict conflicts. Judicial procedures cover native courts and external controls. (381-item bibliogr.)—*W. B. Hall.*

6532. Bloom, B. L. *Ecologic factors in intelligence test performance.* *Soc. Process*, 1961-62, 25, 67-70.—The superiority of a Hawaiian hospitalized group compared with a Connecticut sample on WAIS performance scales suggests the "presence of a general motoric orientation in this sample . . . consistent with recent formulations regarding the existence of motoric vs. conceptual life styles."—*E. L. Gaier.*

6533. Bloomgarden, Lawrence. (American Jewish Committee, NYC) *A current evaluation of the effect of discrimination and self-segregation on Jewish occupational choice.* *J. Jewish communal Serv.*, 1962, 39(1), 91-97.—A review of the patterns of occupational choice of Jews with evaluation of some of the more predominant factors that have influenced them. Changes taking place within the structure of American society are acting to broaden opportunities. Among college students, Jews, Protestants and Catholics seem to view the importance of getting ahead with about the same degree of conviction. Jews seem somewhat less likely to follow the organization man career line than those of other faiths. Discrimination and self-segregation are still in evidence. Changes in the technological needs of management may reduce discrimination in this field where it has been most predominant.—*M. A. Seidenfeld.*

6534. Bonte, M. (Yale U.) *The reaction of two African societies to the Müller-Lyer illusion.* *J. soc. Psychol.*, 1962, 58(2), 265-268.—Over 60 years ago Rivers reported that the Todas were less susceptible to the Müller-Lyer illusion than Europeans. When apparatus similar to his based on the psychophysical method of adjustment or average error was employed, a sample of 50 Bashi African and 100 Mbuti pygmies was no more susceptible than a group of Europeans. River's finding, however, was replicated when 400 Bashi and 72 Europeans were compared through a series of 15 drawings prepared by Herskovits et al. (method of constant stimuli to locate an indifference zone). Neither of these nor Rivers' studies have isolated the precise variables which produce differences in reactions to the illusion, but clearly the stimulus itself and the measurement procedure play an important role.—*Author abstract.*

6535. Boquet, Susana. (Columbia U.) *Acculturation of Puerto Rican children in New York and their attitudes toward Negroes and whites.* *Dissert. Abstr.*, 1962, 22(11), 4105-4106.—*Abstract.*

6536. Coelho, G. V., Sellitz, Claire; Cook, S. W., Bjerstedt, A., Bailyn, Lotte; Kelman, H. C., & Schild, E. O. (National Inst. Mental Health, Bethesda) *Impacts of studying abroad.* *J. soc. Issues*, 1962, 18(1), 1-89.—This entire issue of the journal is devoted to the theoretical and empirical

considerations arising from international exchanges of students. Portions of the issue are devoted to elucidating principles of social perception and social learning in situations involving cross-cultural contacts while other portions discuss the adaptive social behavior occasioned when one finds oneself in an alien social environment. Implications and recommendations for student exchange programs are drawn and presented.—*A. Barclay.*

6537. Corke, Patricia Perry. (U. Houston) **A comparison of frustration-aggression patterns of Negro and white southern males and females.** *Dissert. Abstr.*, 1962, 22(8), 2870.—*Abstract.*

6538. Devereux, E. C., Jr., Bronfenbrenner, Urie, & Suci, G. J. **Patterns of present behavior in the United States of America and the Federal Republic of Germany: A cross-national comparison.** *Int. soc. Sci. J.*, 1962, 14(3), 488-506.—These findings suggest that American 6th-graders view their parents as imposing less direct discipline but expressing less affection, more disapproval, and more pressure for achievement in contrast to the sample of German parents described by their children. The American father plays a much weaker role than the German father, while the American mothers are characterized by a greater tendency toward criticism. Less control also seems to characterize the American parent, in terms of restrictions imposed on the children. It is speculated that the greater affection and control in the German family affects boys in being less independent, less self-directed, and less interested in peer-group interactions whereas the attitudes of the American parent seems to produce more achievement orientations among their male children. Alternative explanations are offered as a cautionary note to these speculations.—*A. Barclay.*

6539. Fenz, Walter D., & Arkoff, Abe. (U. Hawaii) **Comparative need patterns of five ancestry groups in Hawaii.** *J. soc. Psychol.*, 1962, 58(1), 67-89.—This study compared need patterns of male and female high school students of Caucasian, Chinese, Filipino, Hawaiian, and Japanese descent as measured by the Edwards Personal Preference Schedule. The Caucasian profile proved to be singular—for many of the needs there seemed to be a Caucasian and a non-Caucasian level of expression. The profiles of the several female groups were more similar than those for the male groups. There was some suggestion of an acculturational process among the students of Japanese ancestry.—*Author abstract.*

6540. Goff, Regina M. (Morgan State Coll.) **Psychology and intercultural interaction.** *J. soc. Psychol.*, 1962, 58(2), 235-240.—Successful intercultural interaction requires recognition of the interdependence of cultural and psychological elements inherent in a total social operation. The quality or nature of interaction is a function of any present set of cultural conditions associated with psychological determinants which serve as commutators, to change the course of compatible ends in view, or as satisfiers to prevailing conditions.—*Author abstract.*

6541. Hill, Reuben. (U. Minnesota) **Cross-national family research: Attempts and prospects.** *Int. soc. Sci. J.*, 1962, 14(3), 425-451.—A review of current and contemplated cross-national research on family, pointing out the difficulties of obtaining such data and the problems involved in attempting cross-

cultural research in this area of study. (58 ref.)—*A. Barclay.*

6542. Mann, J. W. (U. Natal) **Race-linked values in South Africa.** *J. soc. Psychol.*, 1962, 58(1), 31-41.—White and nonwhite South African students wrote commentaries on 7 anecdotes, each of which posed a social dilemma. Analysis brings out these race-linked value differences, the nonwhite inclining more towards community service above privatism, public welfare before religious scruples, and full democracy for all circumstances. The differences could be attributed to different cultural traditions, although cultural differences between races were minimized in this study. An explanation in terms of stratification is feasible. Whatever the explanation, the race-linked values are likely to affect the prevailing stratification in South Africa.—*Author abstract.*

6543. Narroll, Raoul. (Northwestern U.) **Data quality control: A new research technique. Prolegomena to a cross-cultural study of culture stress.** New York: Free Press Glencoe, 1962. 198 p. \$5.00.—The quality of ethnographic data may be related to whether their reporter (a) mentions specific cases (rather than only generalizations), (b) lived among the people studied, (c) stayed with the people for more than a year, (d) knew the native language, (e) was an ethnographer or native scholar (rather than a missionary or government official), and (f) reports explicitly on the characteristics in question (such that little judgment need be employed in their interpretation). Quality of 4 measures of culture stress was assessed by computing Yule's Q between them and each of the above 6 quality conditions. Among 17-32 (depending upon the measure) previously studied societies, reported occurrence of drunken brawling was related substantially ($Q > .50$) to explicitness of reporting (condition f); defiant homicide to (c), (d), and negatively to (f); protest suicide to (d), and negatively to (a) and (f); witchcraft attribution to (b), (c), (d), and negatively to (e). When frequency of occurrence is substantially related to quality conditions, statistical procedures should be employed to control for variation in the latter.—*J. Sawyer.*

6544. Oommen, T. T. **Social factors in mobilizing small savings in India.** *Indian J. soc. Wk.*, 1961, 22(3), 197-202.—Buying prestige jewelry and paying for ritualistic ceremonies are examples of significant hoarding and unproductive spending. Ways and means of changing cultural values and norms to produce more healthy economic growth are suggested.—*R. Schaef.*

6545. Park, J. E. **Human factors in rural sanitation.** *Indian J. soc. Wk.*, 1961, 22(3), 193-195.—Methods of implementing health education aims in order to close the gap between knowledge and application are outlined.—*R. Schaef.*

6546. Rao, N. A. Hanumantha. **A study on social distance with particular reference to major caste groups of the coastal tract of North Kanara.** *J. Karnatak U.*, 1960, 4, 75-105.—A modified Social Distance scale was used with 407 students from 8 caste groups inhabiting the coastal areas of India. The scale asked 4 questions concerning: allowing one of another caste to stay in one's locality, accepting one of another caste as a neighbor, taking food into

the house of another caste and marrying into another caste. Results show that most of the Brahmins are ready to allow non-Brahmins to live in the neighborhood, but are not ready to take food into the houses of, or marry among, non-Brahmins. Among non-Brahmins, Nadvars and Harikantras are most conservative; and among Brahmins, Haviks are most conservative. Lower caste groups want to marry into higher caste groups. Girls were found to be more conservative than boys.—*U. Pareek.*

6547. Rosenblatt, Paul C. (Northwestern U.) **Functions of games: An examination of individual difference hypotheses derived from a cross-cultural study.** *J. soc. Psychol.*, 1962, 58(1), 17-22.—In a probe of the validity of generalizing from cross-cultural studies to the level of intracultural individual differences, hypotheses about the relationship between values and participation in games were derived from a cross-cultural study. Because the data do not support the hypotheses, it is concluded that individual difference generalizations based on cross-cultural findings are of limited validity.—*Author abstract.*

6548. Schull, W. J., Yanase, T., & Nemoto, H. (U. Michigan) **Kuroshima: The impact of religion on an island's genetic heritage.** *Hum. Biol.*, 1962, 34(4), 271-298.—Differences between Buddhists and Catholics in a Japanese island population were found in respect to: "(1) reproductive performance, (2) frequency of visual handicap and abnormal color perception, and (3) ABO phenotype frequencies."—*P. Swarts.*

6549. Schwarzweller, Harry K., & Brown, James S. (U. Kentucky) **Education as a cultural bridge between eastern Kentucky and the great society.** *Rural Sociol.*, 1962, 27(4), 357-373.—Education seems to be the chief vehicle for transmitting the dominant culture to this rural area.—*H. K. Moore.*

6550. Singh, Paras Nath, & Rettig, Salomon. (Ohio State U.) **Cross-cultural differences in habitual response preferences as an index of anxiety.** *J. soc. Psychol.*, 1962, 58(1), 9-15.—The study measured differences in culturally conditioned tendencies to prefer certain responses over others. It was hypothesized that Indian students prefer responses which signify low anxiety, compared to American students, and that this preference is inversely related to stimulus structure. A questionnaire, consisting of 20 structured, 20 semistructured, and 20 unstructured items, was administered to 50 American and to 150 Indian graduate students in India and in the United States, in the English and Hindi language. The results support both hypotheses. Indian students significantly prefer the "yes," "true," "agree," and "satisfied" responses, irrespective of stimulus content, language, and place of residence. It was concluded that these results reflect differential anxieties associated with the 2 different cultures.—*Author abstract.*

6551. Tedeschi, James T., & Kian, Mohamed. (U. Miami) **Cross-cultural study of the TAT assessment for achievement motivation: Americans and Persians.** *J. soc. Psychol.*, 1962, 58(2), 227-234.—1 group from each culture was presented the TAT under relaxed conditions and 1 group from each culture was given the TAT under aroused conditions. The results show that Americans and Persians are not significantly different in strength of need for achieve-

ment under either condition of testing. Persians under aroused conditions scored higher than Persians tested under relaxed conditions; the American groups did not differ from one another. A general perusal of the TAT protocols gave indications of differences in the thought patterns between the 2 cultural groups.—*Author abstract.*

6552. **United Nations Educational, Scientific, and Cultural Organization. Race and science.** New York: Columbia Univ.: Press, 1961. 506 p. \$5.00.—11 monographs by natural and social scientists participating in UNESCO's program on race and culture. The concept of race is defined, and our present knowledge of race differences and racial prejudice is presented. The relationship of race relations to mental health, in general, and psychology, in particular, is analyzed.—*C. W. Page.*

6553. Wallace, A. F. C. (U. Pennsylvania) **Culture and personality.** New York: Random House, 1961. x, 213 p. \$1.95 (paper).—This volume is devoted not to a descriptive summary of empirical studies in the field but to a critical analysis of the logic and methods of previous research and theorizing. The author deals with the problem of formulating operationally meaningful assertions, the different views of the relation between culture and personality, the minimum cognitive conditions for a stable cultural system, the relation between the evolution of culture and the evolution of the brain, the cultural distribution of personality types and mental illnesses, and the psychology of cultural change. In addition to the author's penetrating logical and methodological comments, the book contains interesting empirical material on revitalization movements which has relevance to processes of social influence and dramatic changes in personality.—*K. E. Davis.*

SOCIAL STATUS & STRUCTURE

6554. Bieri, J., Lobeck, Robin, & Plotnick, H. (2 E. 91 St., NYC) **Psychosocial factors in differential social mobility.** *J. soc. Psychol.*, 1962, 58(1), 183-200.—Varying degrees of social class mobility, measured by father-subject discrepancy in education and occupation, are found among adult males. Demographic variables associated with greater upward mobility are: Jewish religion (vs. Catholic), foreign-born status of father, and lower-class background. Lower feelings of dominance are associated with lower class background and, among Jewish Ss, with greater mobility. Equating groups for education, Jewish Ss show superior vocabulary ability and more frequently enter occupations requiring verbal skills. Extreme religious differences are found in acceptance of authority, but only among Jewish Ss is authority acceptance inversely related to years education (and thus to class status). Mobility is discussed in relation to intellectual ability, need achievement, compensatory motivations, and the supportive role of cultural values.—*Author abstract.*

6555. Butman, Jean Woodward. (U. Michigan) **Social class and peer evaluation.** *Dissert. Abstr.*, 1962, 22(7), 2484-2485.—*Abstract.*

6556. Coser, Lewis A. (Brandeis U.) **Some functions of deviant behavior and normative flexibility.** *Amer. J. Sociol.*, 1962, 68(2), 172-181.—This paper calls attention to the positive function of

deviance in social structures. Among the latent functional contributions are the role of the deviant in arousing the community to the consequences of the breach of its norms, and the fact that deviance may be considered the very ground of normalcy. Various structural and situational circumstances which lead the group to tolerate or even to foster deviance are considered. Criminal deviance is distinguished from nonconformist innovating behavior; and various types of innovating departures from normalcy are considered from the dual viewpoint of structurally induced motivation and of impact on group structure.—*R. M. Frumkin.*

6557. Gerber, Irwin. (New York U.) **The effects of the Supreme Court's desegregation decision on the group cohesion of New York City's Negroes.** *J. soc. Psychol.*, 1962, 58(2), 295-303.—This investigation involved 2 areas of research. In one, the effect of the desegregation decision on the group cohesion of New York City's Negroes was studied. In the other, the researcher studied the differences of group cohesion between 3 Negro socioeconomic classes. 1500 questionnaires were mailed. The questionnaire was composed of 7 items designed to measure group cohesion. These criteria were derived from a series of interviews with Negro race leaders. A return of 260 responses was used as the working sample. The results were: there is a significant increase for the change of group cohesion for New York City's Negroes, the upper-middle-middle-class and the lower-middle-class showed an increase for group cohesion without a significant difference between them, between the upper-middle-middle-class and the lower class the only significant difference was for the criterion of sensitivity, between the lower-middle-class and the lower class there was no significant difference in change for group cohesion.—*Author abstract.*

6558. Mehlman, B., & Warehime, R. G. (San Fernando Valley State Coll.) **Social class and social desirability.** *J. soc. Psychol.*, 1962, 58(1), 167-170.—If social class has a tremendous influence upon individual personality development and value system formation then it seems reasonable to expect that persons from the various social classes should respond differently to a measure such as the Social Desirability scale. 218 males and females were administered the Hollingshead-Redlich Index of Social Position and the Edwards Social Desirability scale. There were 22, 32, 72, 62, and 30 persons in Social Classes I, II, III, IV, and V, respectively. The analysis of variance *F* for social class differences was not significant at the .05 level, although it did approach significance at the .10 level. Several hypotheses are discussed for these results, which tend to agree with what has been found by other studies in this area.—*Author abstract.*

6559. O'Dea, Thomas F. (U. Utah) **Five dilemmas in the institutionalization of religion.** *J. scient. Stud. Relig.*, 1961, 1, 30-41.—The following 5 dilemmas of the institutionalization of religions are discussed: (a) mixed motivation, (b) symbolism (objectification versus alienation), (c) administrative order (elaboration versus effectiveness), (d) delimitation (concrete definition versus substitution of letter for spirit), and (e) power (conversion versus coercion).—*O. Strunk, Jr.*

6560. Shryrock, Henry S., Jr. (United States Bureau Census, Washington, D. C.) **Some results of the 1960 census of the United States.** *Rural Sociol.*, 1962, 27(4), 460-472.—"For the first time in our history, a larger percentage of negroes than of whites are urban residents. . . . The slight decline in median age was the first in our history."—*H. K. Moore.*

6561. Townsend, Peter. **The meaning of poverty.** *Brit. J. Sociol.*, 1962, 13(3), 210-227.—It is shown that the concept of poverty in the behavioral sciences has tended to lack objectivity because it has been defined in absolute terms. The author's thesis is that poverty is a relative concept and that it can only be defined in relation to the material and emotional resources available at a particular time to the members either of a particular society or different societies. One serious error has been to narrow attention to the preservation of physical efficiency and by implication to assume that physical efficiency of individuals can be divorced from their psychological well-being and the organization and structure of society. What most people would call poverty in one society is often comparative affluence in another. Individuals and families whose resources, over time, fall seriously short of the resources commanded by the average individual or family in the community in which they live, whether the community is a local, national, or international one, are in poverty. Employing this more objective theory of poverty, there seems to be a substantial amount of poverty in Britain.—*R. M. Frumkin.*

ATTITUDES & OPINIONS

6562. Adams, James Ray. (Columbia U.) **Attitudinal ambivalence and choice of contraceptive method.** *Dissert. Abstr.*, 1962, 22(8), 2894.—*Abstract.*

6563. Allport, G. W. (Harvard U.) **Prejudice: Is it societal or personal?** *J. soc. Issues*, 1962, 18(2), 120-134.—"Societal forces, taken in the round, are distal causal factors in group relations. From them one can predict, at least roughly, the course of integration and segregation, of accommodation and conflict. . . . At the same time, the intervening factor of personality is ever the proximal cause of all human conduct. Conformity is the missing link that explains why and how societal forces eventuate into patterns of acceptance or discrimination—so far as they do so. . . . In so far as societal predictions fail it is because they overlook the non-conformist, deviant, morphogenic aspects of personal behavior—of which there are many."—*A. Barclay.*

6564. Barclay, John E., & Weaver, Herbert B. (U. Hawaii) **Comparative reliabilities and ease of construction of Thurstone and Likert attitude scales.** *J. soc. Psychol.*, 1962, 58(1), 109-120.—Construction of 2 alternate forms of a Thurstone scale of 21 items was found to consume 43.2% more time than construction of 2 alternate forms of a Likert scale of 21 items. The Likert scales, moreover, exhibit a very significantly higher degree of reliability ($r = .97$) than do the Thurstone scales ($r = .66$). The scales developed were for the purpose of measuring the attitudes of tourists in Hawaii toward their visits, and they will be made available to the tourist industry.—*Author abstract.*

6565. Bonato, Roland Richard. (U. Connecticut) The effect of source credibility and amount of information on opinion change. *Dissert. Abstr.*, 1962, 22(8), 2895.—*Abstract*.

6566. Broverman, Inge Komers. (Clark U.) Factors influencing the impressions of others. *Dissert. Abstr.*, 1962, 22(9), 3279-3280.—*Abstract*.

6567. Crane, Lauren Edgar. (Stanford U.) A comparison of the immunization effects of implicit and explicit presentation of counter-arguments. *Dissert. Abstr.*, 1962, 22(10), 3745.—*Abstract*.

6568. Devoto, A. Psicologia e psicopatologia del Lager nazista. [Psychology and psychopathology of the Nazi lager.] *Riv. Psicol. soc.*, 1962, 29(2), 163-186.—A review of the literature on the reactions to imprisonment in German concentration camps.—*L. L'Abate*.

6569. Ehrlich, Howard J. (National Inst. Mental Health) Stereotyping and Negro-Jewish stereotypes. *Soc. Forces*, 1962, 41(2), 171-176.—Questionnaire responses from 366 undergraduates in introductory sociology classes reveal "a distinctive, mutually exclusive, and highly consensual pattern of Negro and Jewish stereotypes." There is "evidence for both the generality of stereotyping and the specificity of stereotype assignment." New light on the components of prejudice may emanate from "a strategy of focus upon the determinants of stereotype assignment and the manifest content of stereotypes."—*A. R. Howard*.

6570. Feather, N. T. (U. New England, Australia) Cognitive dissonance, sensitivity, and evaluation. *J. abnorm. soc. Psychol.*, 1963, 66(2), 157-163.—In a test of dissonance theory the sensitivity of regular smokers to information about smoking and lung cancer was compared to nonsmokers. Smokers were more interested in such information than nonsmokers; but they did not seek out negative evidence about lung cancer and smoking, nor did they reject information about the harmful effects more than nonsmokers. No clear-cut results emerge from the analysis of dissonance reduction in relation to extraversion and neuroticism, though regular smokers were higher in extraversion than nonsmokers.—*Journal abstract*.

6571. Finney, J. C. Attitudes of others toward Hawaiians. *Soc. Process*, 1961-62, 25, 78-83.—Depth interviews with 73 members of "other ethnic groups in Hawaii towards Hawaiians" indicate that "many people see Hawaiians in terms of the stereotype of supposedly happy, unspoiled 'primitive' man. On a less conscious level this includes identifying the Hawaiians with one's id impulses and basic biological drives. . . . Nevertheless, the same persons usually say that they themselves could not follow the Hawaiian way of life. They are evidently restrained by conscience, Puritanism, rigidity, reaction formation, need for achievement, ambition, or 'The Protestant ethic.'"—*E. L. Gaier*.

6572. Grand, Sheldon Allen. (U. Buffalo) Reactions to unfavorable evaluation of the self by others in relation to the function of acceptance of disability. *Dissert. Abstr.*, 1962, 22(7), 2485-2486.—*Abstract*.

6573. Joshi, Vidya. (U. Lucknow, India) Attitude towards reception of technology. *J. soc.*

Psychol., 1962, 58(1), 3-7.—This paper attempts to study the implication of the hypothesis that the adoption of a new or changed mode of technology depends primarily on the receptivity of the culture and its people rather than on the material and technical resources. Qualitative and quantitative data obtained seem to confirm the hypothesis.—*Author abstract*.

6574. Klausner, Samuel Z. (Columbia U.) Images of man: An empirical enquiry. *J. scient. Stud. Relig.*, 1961, 1, 61-73.—Data are derived from a content-analysis of 591 books and articles written by ministers relating psychology to pastoral duties and by psychiatrists analysing the role of values, especially religious values, to psychotherapy. There are indications that the religio-psychiatric movement among the clergy involves gradual acceptance of the scientific image of man. Religion as a whole is not becoming scientific; rather, pastoral counselors bearing this image are emerging as ministerial specialists.—*O. Strunk, Jr.*

6575. Kosa, John, & Schommer, Cyril O. (U. North Carolina) Religious participation, religious knowledge, and scholastic aptitude: An empirical study. *J. scient. Stud. Relig.*, 1961, 1, 88-97.—362 native-born white male students under 26 years of age were administered the Le Moyne Religious Test. Comparing these scores with various achievement and aptitude scores produced the following conclusions: (a) religious knowledge and participation in religious activities appear to be correlated with performance on scholastic achievement and aptitude tests, (b) there is no indication that higher scholastic achievements would be associated with less pro-religious attitudes, (c) the religious attitudes of the Ss are affected by social environment, and (d) a church oriented environment directs the interest of the individual toward religion and thus creates conditions which lead to more intensive religious participation as well as greater religious knowledge.—*O. Strunk, Jr.*

6576. Levinson, Boris M. (Yeshiva U.) Yeshiva College subcultural scale: An experimental attempt at devising a scale of the internalization of Jewish traditional values. *J. genet. Psychol.*, 1962, 101(2), 375-399.—The Yeshiva College Subcultural Scale (YCSS) is an experimental scale designed to measure the extent to which Jewish traditional values have become internalized among Yeshiva College freshmen. The aim was to find a scale which might be operative within the narrow confines of Jewish traditional culture. It is based on the hypothesis that the response set on an item in a structured personality test for a group depends to a great extent upon the subcultural forces which shaped the personality dynamics of the respondents. YCSS consists of 99 MMPI items on which 2 Yeshiva College freshmen classes responded significantly differently from that of the general population. YCSS was cross-validated with another Yeshiva College freshmen class and a non-Jewish graduate student group.—*Author abstract*.

6577. McDill, Edward L., & Ridley, Jeanne Clare. (Vanderbilt U.) Status, anomia, political alienation, and political participation. *Amer. J. Sociol.*, 1962, 68(2), 205-213.—Low social status, anomia, and political alienation of a sample of suburban residents are shown to be significantly related

to a negative vote and unfavorable attitude on the issue of metropolitan government in Nashville, Tennessee. Anomia and political alienation interpret, to a very limited extent, the association between social status and political participation in the Nashville issue. It is concluded that the 3 independent variables are, for the most part, additive in their effects on the extent and direction of participation in a local political issue.—R. M. Frumkin.

6578. Marrow, Alfred J. **Changing patterns of prejudice: A new look at today's racial, religious and cultural tensions.** Philadelphia, Pa.: Chilton, 1962. xiv, 271 p. \$6.95.—Prejudice, the nature and extent, is examined as a problem of the individual and as an issue in intergroup relations. Illustrations are primarily from the problems, methods, and approaches of New York City's Commission in Intergroup Relations and include discussions on specific incidents in restaurants, the press, gangs, social clubs, housing, and education. Prejudice involving Negro and Puerto Rican is explored.—C. W. Page.

6579. Nemeth, Alexander J. (U. Connecticut) **Some determinants of the individual's global disposition of favorableness or unfavorableness toward the other person: An experimental study in impression formation.** *Dissert. Abstr.*, 1962, 22(8), 2877.—Abstract.

6580. Nidorf, Louis Joseph. (Clark U.) **Individual differences in impression formation.** *Dissert. Abstr.*, 1962, 22(9), 3261-3262.—Abstract.

6581. Parida, G. (Cuttack, India) **Popular beliefs and practices.** *Indian J. Psychol.*, 1961, 36(4), 161-168.—An inventory of 100 common beliefs and practices was administered to 200 college students from the Cuttack region of Orissa State. The writer distinguishes between misbeliefs founded on misinformation versus misbeliefs based on superstitious fears. In general, no significant differences in numbers of beliefs or practices admitted by college students were found between subsamples dichotomized according to college course (science or arts), residence (town or village), occupation of parent (farming or service), and further classified according to successive year in college. Subsample n's are not given. For the total group of students, numbers of superstitions practiced were less than number believed. The writer concludes that college education in an Indian university does not kill superstitions or popular misbeliefs and their practice by students.—J. T. Cowles.

6582. Pavey, Stanley. (Ohio State U.) **The effect of failure on future time perspective in open and closed belief systems.** *Dissert. Abstr.*, 1962, 22(10), 3741-3742.—Abstract.

6583. Photiadis, John D. (U. Minnesota) **Education and personality variables related to prejudice.** *J. soc. Psychol.*, 1962, 58(2), 269-275.—Psychological theories suggest that prejudice is satisfying some psychic need of the individual. Empirical evidence has indicated that a number of variables are responsible for this need. The purpose of this investigation was, 1st to examine the relationship between formal education and these variables, and 2nd, to examine the relationship between each of these variables and education when the remaining variables are controlled. Zero order correlation analysis

showed that all these variables—Orthodoxy, Extrinsic Belief, Anomia, Status Concern, Conservatism, Authoritarianism, Withdrawal Tendencies, and Anti-social Tendencies—are related to education negatively. When partial correlation analysis was used, however, only Orthodoxy, Status Concern, and Withdrawal Tendencies were found to be significantly related to education. All 3 relationships were negative.—Author abstract.

6584. Photiadis, John D., & Bigger, Jeanne. (South Dakota State Coll.) **Religiosity, education, and ethnic distance.** *Amer. J. Sociol.*, 1962, 67(6), 666-672.—The findings of on a sample of 300 adult men and women in a small community in eastern South Dakota: orthodoxy, extrinsic belief, anomia, status concern, conservatism, withdrawal tendencies, and anti-social tendencies are not related to ethnic distance. Church participation and formal education are negatively related. Authoritarianism is the only personality variable related positively to ethnic distance.—R. M. Frumkin.

6585. Rao, N. C. S. **Measurement of social attitude.** *J. voc. educ. Guid., Baroda*, 1961, 7(4), 171-185.—A description of the development of a Likert-type attitude scale for the measurement of conservatism-radicalism and tender-toughmindedness using a sample of 360 college students from 4 widely spaced areas in India. All students were graduate students in education, psychology, commerce, or science; modal age was 23; the sample was predominantly male. Item analysis resulted in a final scale of 48 items with odd-even reliability coefficients of .90 and .79, respectively. Validation was attempted against student self-ratings only on the conservative-radical dimension, using a group of 100 "new" students. The resulting r was .51.—W. L. Barnette, Jr.

6586. Ring, Kenneth, & Kelley, Harold H. (U. Connecticut) **A comparison of augmentation and reduction as modes of influence.** *J. abnorm. soc. Psychol.*, 1963, 66(2), 95-102.—A 2×2 factorial experiment was conducted which attempted to influence the opinion responses of Ss (introductory psychology students) through the use of 1 of 2 methods, augmentation or reduction. Also varied was the plausibility of the standard employed by the influencer to assess the "correctness" of the Ss' opinions. It was found that reduction (giving mild praise for correct answers, but extreme criticism for wrong ones) when coupled with an implausible standard produced the greatest concealment of opinions, the least learning of the influencer's standard, and the least acceptance of it. With the plausible standard, reduction was not noticeably different in its effects from augmentation (giving high praise for correct answers and mild reproof for wrong ones).—Journal abstract.

6587. Rosenberg, Milton J., & Oltman, Philip K. (Ohio State U.) **Consistency between attitudinal affect and spontaneous cognitions.** *J. Psychol.*, 1962, 54(2), 485-490.—A new method for eliciting and quantifying the cognitive aspect of social attitudes was described. Data were reported concerning the relationship between an index of attitudinal cognition based upon this procedure and a separate index of attitudinal affect. These data seem relevant to the field of attitude study in 2 ways: they provide useful additional confirmation of the proposition that

the affective and cognitive components of attitudes are typically organized in close consistency with one another; they help validate a new method of attitude measurement that may have wide utility both in experimental studies and in sample surveys of social attitudes.—*Author abstract.*

6588. Rosengren, William R. (Brown U.) Social instability and attitudes toward pregnancy as a social role. *Soc. Probl.*, 1962, 9(4), 371-378.—The function of the sick role in cases of abnormal organic damage seems to be chiefly societal in nature—to provide a legitimate role for persons who are defined as unable to enact their more normal social roles. In the case of pregnancy, however, the function of the role of the sick seems to be more ideosyncratic in nature insofar as it offers an opportunity to enact a sanctioned role for those who may be unwilling to continue their usual social roles, or who for some reason find the sick role more satisfying than the roles which they are ordinarily called upon to perform. There was found among the 110 pregnant women studied a negative association between self-esteem and sick role expectations. Those women with value conflicts tended to regard themselves as more sick than those without such conflicts. The findings are consistent with the hypothesis that social instability is an important source of motivations to enact the sick role.—*R. M. Frumkin.*

6589. Schubert, Glendon. (Michigan State U.) A solution to the indeterminate factorial resolution of Thurstone and Degan's study of the Supreme Court. *Behav. Sci.*, 1962, 7(4), 448-458.—"The purpose of this paper has been to suggest a theory of the voting behavior of Supreme Court justices, and to describe a method which can be used to provide a test of the theory. It is believed that the application of the theory and method to sets of factor data provided by Thurstone and Degan and attitudinal data provided by Pritchett has made possible a plausible solution to the problem of factorial interpretation that was left unresolved by the earlier study of Thurstone and Degan. It is also possible that the proposed combination of factor analysis and cumulative scaling, within a multidimensional composition model suggested by Coombs' theory of data, may prove to be of general interest."—*J. Arbit.*

6590. Secord, P. F., Backman, C. W., & Meredith, Helen E. (U. Nevada) Cue-dominance in person perception as a function of strength of perceiver-need. *J. soc. Psychol.*, 1962, 58(2), 305-313.—The following hypothesis was investigated: trait cues in the stimulus person that correspond to dominant traits of the perceiver have more effect on the inference process than do trait cues corresponding to traits not characteristic of the perceiver. Personality sketches representing the highest and lowest scoring needs obtained by 132 Ss on the Edwards Personal Preference Schedule (EPPS) were judged on a trait checklist. Ss also ranked the 14 stimulus person descriptions according to the degree to which they liked or disliked these kinds of persons. An analysis of the results indicated that when liking for the stimulus person was controlled, no appreciable difference was found between inferences made about the stimulus person representing one's high EPPS need and the person representing one's low EPPS need.—*Author abstract.*

6591. Sherif, Muzafer, & Hovland, Carl I. (U. Oklahoma) Social judgment: Assimilation and contrast effects in communication and attitude change. New Haven, Conn.: Yale Univer. Press, 1961. xii, 218 p. \$6.00.—Assimilation and contrast effects in the placement of opinion items in a series and in the evaluation of the acceptability of such items are explained by principles derived from psychophysical studies of stimulus placement and the development of scales of judgment. The book contains a systematic survey of relevant psychophysical studies plus an analysis of several of the authors' recent experiments on the judgment of weights, opinion topics, and political parties. In addition to the argument that assimilation and contrast effects depend on the location of anchors employed by the judge in evaluating the stimulus items, the authors introduce the concepts of latitude of acceptance and latitude of rejection and discuss the implications of these concepts for attitude change and communication.—*K. E. Davis.*

6592. Siegman, Aron Wolfe. (Bar-Ilan U., Israel) An empirical investigation of the psychoanalytic theory of religious behavior. *J. scient. Stud. Relig.*, 1961, 1, 74-78.—Using undergraduate and 1st-year medical students as Ss, the following hypotheses were tested: (a) the more religious in belief and observance have a greater tendency to project, (b) there is a positive correlation between Ss' feelings and concepts concerning God and their feelings and concepts concerning their father, and (c) males have a greater tendency than females to perceive God as a punishing figure. Hypotheses a and c were not confirmed. There was some support for hypothesis b.—*O. Strunk, Jr.*

6593. Silber, Mark Bischoff. (Ohio State U.) A comparative study of three methods of effecting attitude change. *Dissert. Abstr.*, 1962, 22(7), 2488-2489.—*Abstract.*

6594. Soysa, Nita. (Cornell U.) Self-concept and role conflict: A study of some aspects of women's self-perception and self-evaluation in relation to their attitudes towards their sex-role. *Dissert. Abstr.*, 1962, 22(8), 2898.—*Abstract.*

6595. Stein, Herman D., & Martin, John M. (Columbia U.) "Swastika offenders": Variations in etiology, behavior and psycho-social characteristics. *Soc. Probl.*, 1962, 10(1), 56-70.—Swastika offenders in the New York area cases tended, in addition to having anti-Semitic attitudes, to have the following traits in their backgrounds: mothers dominated their families; fathers were characteristically weak, disturbed, or absent; the boys did poorly at school (despite generally normal intelligence); they had strong feelings of inferiority and inadequacy; they leaned heavily on group relationships for support; and some of them evidenced sadistic traits. They generally came from neighborhoods with relatively low delinquency rates. Swastika daubings and related activities represent only one form of anti-Semitic behavior. A program designed to prevent adult anti-Semitic behavior is recommended.—*R. M. Frumkin.*

6596. Swedner, Harold. (U. Lund, Sweden) Prediction of differences in habits and attitudes toward service establishments in rural and urban settings. *Rural Sociol.*, 1962, 27(4), 396-417.—Interviews with 132 matched pairs of rural and town

dwellers supplied data for testing hypotheses concerning attitudes toward such service establishments as beauty parlors, stores, physicians' offices, movies, churches, and banks.—*H. K. Moore.*

6597. Uribe Villegas, Oscar. *El desarrollo económico-social y las actitudes psico-sociales.* [Socio-economic development and socio-psychological attitudes.] *Rev. Mex. Sociol.*, 1962, 24(2), 441-461.—Descriptive nonsystematic observations of social psychological attitudes that appear to hinder socioeconomic development in Mexican society. Mention is made of the influence of the United States way of life on Mexicans' attitudes and behavior. The author believes that successful and lasting socioeconomic development requires the development of mature personal and interpersonal attitudes.—*L. V. Steinzor.*

6598. Walker, Lawrence. (Pennsylvania State U.) *A concept formation analogue of attitude development.* *Dissert. Abstr.*, 1962, 22(7), 2482-2483.—*Abstract.*

6599. Weatherley, Donald. (U. Colorado) *Maternal response to childhood aggression and subsequent anti-Semitism.* *J. abnorm. soc. Psychol.*, 1963, 66(2), 183-185.—2 measures of anti-Semitism were obtained from 39 college women. Information concerning maternal handling of their childhood aggression was obtained from their mothers. The results showed that relatively stern maternal discipline toward childhood aggressive behavior was associated with a relatively high level of anti-Semitism in the women.—*Journal abstract.*

GROUP INFLUENCES

6600. Barker, Harry Ross, Jr. (Emory U.) *Scaled adjectives as verbal incentives on tasks at two levels of competition.* *Dissert. Abstr.*, 1962, 22(11), 4090.—*Abstract.*

6601. Cattell, Raymond B., & Lawson, Edwin D. (U. Illinois) *Sex differences in small group performance.* *J. soc. Psychol.*, 1962, 58(1), 141-145.—10 groups of men and 7 groups of women organized into 10-member groups met for 3 daily sessions of 3 hours. Performances on 9 types of tasks such as deciphering crypts, construction of geometric models, and discussion were compared. Results lead to the conclusion that group performances of men and women are substantially similar contrary to the hypothesis. There were some indications that construction level of aspiration and level of persuadability do show differences.—*Author abstract.*

6602. Collins, Mary Evans. (New York U.) *Intra-individual differences in conformity behavior as a function of involvement in issues.* *Dissert. Abstr.*, 1962, 22(11), 4106.—*Abstract.*

6603. Eysenck, Sherman. (U. Kansas) *The dependence of visibility of values upon group compatibility and level of need for affection.* *Dissert. Abstr.*, 1962, 22(7), 2485.—*Abstract.*

6604. Feldman, Marvin J., & Goldfried, Marvin R. (U. Buffalo) *Validity of group judgment as a factor affecting independent and conformity behavior.* *J. soc. Psychol.*, 1962, 58(2), 289-294.—The 72 female Ss were seated in booths in groups of 4. Their task was to match 1 of 3 lines with a standard. Unknown to them, each S responded in 3rd position while E controlled responses in other

positions. Of 21 slides, 12 contained 1 correct answer (A slide); the other 9 slides contained 2 or more correct alternatives (B slides). In Group I, a unanimously wrong answer was given for positions controlled by E on A slides. In Group II, the majority apparently responded correctly on A slides. In both groups on the B slides the majority unanimously chose 1 of the correct alternatives. From responses to A slides, Group I Ss were divided into High, Middle, and Low degrees of independence. On B slides, Highs tended to select alternatively correct responses while Low tended to agree with the majority response. In Group II, where majority responses to A slides were valid, Ss still chose 40% of the alternatively correct choices on B slides. The results suggest that it makes a difference whether or not the majority response is valid or invalid.—*Author abstract.*

6605. Frye, Ronald Lee. (Louisiana State U.) *The effect of feedback of success and effectiveness on self, task, and interaction oriented group members.* *Dissert. Abstr.*, 1962, 22(9), 3272-3273.—*Abstract.*

6606. George, Clay E. *Some determinants of small-group effectiveness.* *HumRRO res. Memo.*, 1962, Subtask Unifect, No. 26. v, 118 p.—Literature between 1955 and 1962 is surveyed to abstract variables of problem-solving group effectiveness with emphasis on young, adult males. A single set of terms was sought. Characteristics of efficient groups were isolated, as well as methods for developing and preserving them. "Formal leadership, ability, and respect" should occur in the same individual. A "task-oriented code" is significant. Detailed findings are outlined. Research is proposed. (157 ref.)—*R. Tyson.*

6607. Goffman, Erving. (U. California) *Encounters: Two studies in the sociology of interaction.* Indianapolis, Ind.: Bobbs-Merrill, 1961. 152 p. \$1.95.—The 2 papers in this volume are concerned with focused interaction, i.e., an encounter. For the participants, this involves: a single visual and cognitive focus of attention, a mutual and preferential openness to verbal communication, a heightened mutual relevance of acts, an eye-to-eye ecological huddle that maximizes each participants opportunity to perceive the other participant's monitoring of him. Whether bracketed by ritual or not, encounters provide the communication base for a circular flow of feeling among the participants as well as corrective compensations for deviant acts. The two essays, "Fun in Games," and "Role Distance," deal with this single unit of focused gathering.—*N. De Palma.*

6608. Hicks, Jack M. (Northwestern U.) *The influence of group flattery upon self evaluation.* *J. soc. Psychol.*, 1962, 58(1), 147-151.—12 personally acquainted small groups of undergraduate college students were used in determining the effects of group flattery upon self-evaluation and its persistence over time. Each S was asked to evaluate himself and each other member of his group on 10 trait characteristics. 2 days later, a report of systematically inflated self-ratings (flattery) was presented to each S as a bonafide consensus of group opinion. Ss reevaluated themselves immediately after, and 5 days after exposure to flattery. Results indicated (a) a significantly greater increase of flattered to unflattered traits

immediately after flattery, (b) no decrement in self-revaluations after 5 days and (c) no significant difference between flattered and unflattered traits after 5 days.—*Author abstract.*

6609. Janicki, W. Peter. (Princeton U.) **Effects of situational and dispositional factors in a dyadic interaction.** *Dissert. Abstr.*, 1962, 22(7), 2477.—*Abstract.*

6610. Kaminski, Gerhard, & Osterkamp, Ute. (Freie U., Berlin-Steglitz, Grunewaldstr. 35, Germany) **Untersuchungen über die Topologie sozialer Handlungsfelder.** [Investigations on the topology of areas of social activity.] *Z. exp. angew. Psychol.*, 1962, 9(3), 417-451.—Sommer's experiments on personal space were converted into a paper and pencil test. 48 students selected places in 3 situations: classroom, U-shaped table, park-benches. Verbal protocols of paths and seats chosen, of distances maintained to other people etc. yielded an outline of a theory of experience and behavior in "socially occupied areas."—*W. J. Koppitz.*

6611. Lebo, Dell. (Child Guidance Clinic, Jacksonville) **Setting and maintaining an effective emotional atmosphere.** *Adult Leadership*, 1962, 11(2), 34-36, 60-62.—The author believes that effective emotional atmosphere can be better established and maintained in groups by a discussion leader with an understanding of mental health and role playing, as well as of specific techniques of handling group dynamics. A discussion of attributes of mental health, methods of attaining emotional adjustment, types of nongroup oriented roles, and specific techniques for helping the group move towards mental health are presented to this end.—*D. Lebo.*

6612. Miller, Arthur Lee. (U. North Carolina) **Evaluation of prospective social relationships: A function of comparison level and estimated reward value.** *Dissert. Abstr.*, 1962, 22(10), 3747-3748.—*Abstract.*

6613. Nielsen, Gerhard. (U. Copenhagen) **Studies in self confrontation: Viewing a sound motion picture of self and another person in a stressful dyadic interaction.** Copenhagen, Denmark: Munksgaard, 1962. 221 p.—12-minute sound movies recorded the discussion and defense of their personal philosophy of life by 22 Ss. Unknowingly, the latter all met with the same confederate of the E whose aim was to obtain modifications of philosophy. "Self-confrontation" occurred on 2 later occasions, at intervals of 1 week and 1½ years, when Ss were recalled to view their own movie. Data resulting from the confrontations include immediate responses, attention to self, bodily movements, eye movements, evaluations of self and of confederate, etc. Included is a digest in Danish.—*A. R. Howard.*

6614. Rosenfeld, Howard Martin. (U. Michigan) **Social choice as a function of resource comparison and motivation.** *Dissert. Abstr.*, 1962, 22(7), 2487.—*Abstract.*

6615. Saltzstein, Herbert David. (U. Michigan) **The effect of rejection from a group on conformity to its influence attempts.** *Dissert. Abstr.*, 1962, 22(7), 2487-2488.—*Abstract.*

6616. Shrader, Elizabeth G., & Lewit, David W. (U. Massachusetts) **Structural factors in cognitive balancing behavior.** *Hum. Relat.*, 1962, 15(3),

265-276.—College students predicted missing attitude relationships among members of 16 4-man hypothetical research staffs, considering themselves as one of the members. The hypothetical groups were varied in plausibility and differentiability. Ss produced more maximally balanced completions in highly plausible and/or differentiable structures, and with lower tension and greater confidence in making completions. (16 ref.)—*W. W. Meissner.*

6617. Smith, Claggett Gordon. (U. Michigan) **Autism, realism, and system balance in a student group.** *Dissert. Abstr.*, 1962, 22(7), 2489.—*Abstract.*

6618. Steiner, Ivan D., & Rogers, Evan D. (U. Illinois) **Alternative responses to dissonance.** *J. abnorm. soc. Psychol.*, 1963, 66(2), 128-136.—50 male and 50 female Ss were placed in an experimental situation in which they found their judgments contradicted by a respected associate of the same sex. Ss were free to resolve the dissonance by conforming to the contrary judgments of the associate, rejecting the associate as one who was less competent than he had been thought to be, underrecalling the disagreements, or, devaluating the importance of the topics about which disagreements had occurred. Female Ss made less use of rejection than did male Ss and were more inclined to tolerate the conflict. Other findings suggest that individuals are inclined to employ the 4 responses as alternative means of reducing dissonance rather than as supplementary means. Finally, correlations relating the MA scale to conformity, underrecall, and tolerance were significantly different for the 2 sexes, suggesting that the effect of anxiety upon Ss' choice of dissonance reducing response depends upon the sex of the Ss.—*Journal abstract.*

6619. Strickland, Bonnie R., & Crowne, Douglas P. (Ohio State U.) **Conformity under conditions of simulated group pressure as a function of the need for social approval.** *J. soc. Psychol.*, 1962, 58(1), 171-181.—This study was an attempt to test the hypothesis that individuals with a high need for social approval will distort their judgments of objectively determinable stimuli in response to perceived group pressure more frequently than persons less concerned with social approval. A group atmosphere was simulated by means of a tape recording. Ss were presented with the conflicting demands of an unambiguous auditory stimulus and the unanimous reports of 3 preinstructed and prerecorded accomplices who gave inaccurate estimates. Conformity was the number of times the naive S gave the same incorrect response as the accomplices. Personality measures were the M-C Social Desirability scale (an index of need for social approval) and the Barron Independence of Judgment scale (a measure of conformity). Results indicated that Ss with a high need for social approval conform significantly more often than those Ss with a weaker approval need. Further, the Barron scale was found to be significantly related to behavior in the simulated conformity situation, lending support to this means of simulating group pressure.—*Author abstract.*

6620. Turk, Herman; Hartley, Eugene L., & Shaw, David M. (Duke U.) **The expectation of social influence.** *J. soc. Psychol.*, 1962, 58(1), 23-29.—Cooley's discussion of the 3-way relationship between primary group, human nature, and uni-

formity of social process suggested a heretofore neglected question in research on social influence. Such research has shown that the flow of influence is positively associated with common group membership and with cohesive social relations. However, it does not specify whether such association between relationship and process is expected by the influential and influenced parties or whether it is an outgrowth of the interactive situation. In the present study, naive respondents rated photographs as to the cohesion and degree of common membership expected with each pictured person and as to the amount of influence expected to flow between respondent and such persons. The findings strongly support the specification that the relational correlates of influence are expected, but they do not necessarily reject the alternative explanation for the existence of such correlates.—*Author abstract.*

6621. Vaughan, G. M., & Mangan, G. L. (Victoria U., Wellington, New Zealand) **Conformity to group pressure in relation to the value of the task material.** *J. abnorm. soc. Psychol.*, 1963, 66(2), 179-183.—This study was an investigation of the effect of varying the value content of a perceptual task under conditions of group pressure, when factual anchorage was held constant. 20 Ss, each with both high and low scores on the Allport-Vernon Study of Values, were exposed to a group pressure situation in which task materials were of both high and low values for each S. The results showed that group pressure is resisted when highly valued material (particularly economic) is utilized, and that, in general, susceptibility to influence increases with pressure.—*Journal abstract.*

6622. Watson, Jeanne, & Potter, Robert J. (U. Chicago) **An analytic unit for the study of interaction.** *Hum. Relat.*, 1962, 15(3), 245-263.—An attempt is made to provide a unit for social interaction. The assumptions are made that sociability is a form of interaction in which identification has primary importance, and that the major products of social interaction are feelings and esteem for self and others and beliefs about self, others, and the external world. The "episode" is defined as the unit in terms of a unitary role system, in which the behaving unit is an "axis" composed of 2 or more individuals. The classification of relationships takes the distinction between "presenting" and "sharing" as its point of departure. A conversational episode is used for illustration.—*W. W. Meissner.*

LEADERSHIP

6623. Day, David Robert. (Ohio State U.) **Basic dimensions of leadership in a selected industrial organization.** *Dissert. Abstr.*, 1962, 22(10), 3760-3761.—*Abstract.*

6624. Johnson, R. T., & Frandsen, A. N. **The California Psychological Inventory profile of student leaders.** *Personnel Guid. J.*, 1962, 41(4), 343-345.—A comparison of CPI profiles of 50 student leaders and 50 nonleaders supports the hypothesis that the former can be distinguished from the latter.—*S. Kavruck.*

6625. Schumer, Harry. (Ohio State U.) **Cohesion and leadership in small groups as related to group productivity.** *Dissert. Abstr.*, 1962, 22(10), 3735-3736.—*Abstract.*

6626. Stogdill, Ralph M., Goode, Omar S., & Day, David R. (Ohio State U.) **New leader behavior description subscales.** *J. Psychol.*, 1962, 54(2), 259-269.—Descriptions of the leader behavior of ministers (N = 103) and community leaders (N = 57) were scored on 10 subscales. Factor analysis of the subscale intercorrelations showed 4 of the subscales (Persuasiveness, Initiating Structure, Role Enactment, and Production Emphasis) with high loadings on the general factor in both populations. 3 of the subscales (Representation, Predictive Accuracy, and Initiating Structure) appeared with at least moderately high loadings on specific factors in both populations.—*Author abstract.*

6627. Trentini, G. **La similarità assunta dei leaders.** [Assumed similarity of leaders.] *Arch. Psicol. Neurol. Psichiat.*, 1962, 23(6), 537-565.—Fiedler's notion of assumed similarity as the difference between self-evaluation and assumption of self-evaluation by another individual is a fertile one. The concept of differential similarity is used to specify the distance between a leader and his group.—*L. L'Abate.*

LANGUAGE & COMMUNICATION

6628. Burke, Kenneth. **A grammar of motives. A rhetoric of motives.** Cleveland, O.: World, 1962. 868 p. \$2.95 (paper).—Now presented in a single volume, these 2 works were first published in 1945 and 1950, respectively.—*C. T. Morgan.*

6629. Cohen, Arthur M., & Bennis, Warren G. (Case Inst. of Technology) **Predicting organization in changed communication networks.** *J. Psychol.*, 1962, 54(2), 391-416.—The results confirmed the hypothesis that when wheel networks are changed to completely connected networks, groups will develop central-hub problem-solving systems like those developing in wheel networks. 10 groups of 5 men each solved 60 problems requiring the discovery of a common symbol, in 1 of 2 conditions, (a) a completely connected network throughout, and (b) a wheel-to-completely connected network. Additional support was provided for the thesis that systematic use of alternative problem-solving experience, derived from the past, influences the kinds of problem-solving systems that groups develop, and that such influence is inducible and predictable.—*Author abstract.*

6630. Doehring, D. G. (Indiana U. Medical Cent.) **Value, frequency, and practice in visual word recognition.** *Psychol. Rec.*, 1962, 12, 209-216.—The value of frequent and infrequent words in previous visual threshold studies has not been adequately controlled. It was here hypothesized that the value factor had a transitory and the frequency factor a permanent effect. Over 4 consecutive sessions results showed no value effect, but consistently lower thresholds for the more frequent words (based on the Thorndike-Lorge G count).—*R. J. Seidel.*

6631. Fjeld, Stanton P. (U. Missouri) **The communication of values and sociometric choice.** *Dissert. Abstr.*, 1962, 22(8), 2896.—*Abstract.*

6632. Hanf, Constance. (Pennsylvania U.) **Intensity of vocal response as a function of vocal and verbal stimuli in interpersonal communication.** *Dissert. Abstr.*, 1962, 22(11), 4095-4096.—*Abstract.*

6633. Holmer, Paul. (Yale U.) **Scientific language and the language of religion.** *J. scient. Stud. Relig.*, 1961, 1, 42-60.—The logic of the discourse of science is not the same as the logic of religion. The language of religion, in contrast to the language about it, must be understood in a context that includes different motives, satisfactions, passions, loves, and all else that is the religious context.—O. Strunk, Jr.

6634. Johnson, F. Craig, & Klare, George R. **Feedback: Principles and analogies.** *J. Commun.*, 1962, 12(3), 150-159.—This theoretical discussion of feedback as applied to human communication includes a review of the literature and of the problems involved in applying the concept.—D. E. Meister.

6635. Joshi, Vidya. (Lucknow, India) **Communication: The process in interaction.** *Indian J. Psychol.*, 1962, 37(1), 11-15.—Author seeks to clarify some of the basic problems in the theoretical area of communication, principally the matters of definition and criteria, the role of communication in personality development, and disturbances in the communication process.—J. T. Cowles.

6636. Levy, Phyllis Addie Kempner. (Columbia U.) **The relationship between the ability to express and to perceive vocal communications of feeling.** *Dissert. Abstr.*, 1962, 22(11), 4082-4083.—*Abstract.*

6637. Natazde, R. G. **Studi su prolemi del pensiero e del linguaggio di psicologi della Repubblica Socialista Sovietica Georgiana.** [Studies on problems of thinking and language by psychologists in the Georgian Socialistic Soviet Republic.] *Riv. Psicol. soc.*, 1962, 29(2), 195-204.—The contribution to the psychology of language by the Russian-Georgian school is reviewed.—L. L'Abate.

6638. Schiffman, Harold. (Princeton U.) **A mathematical model of interpersonal communication.** *Dissert. Abstr.*, 1962, 22(7), 2481.—*Abstract.*

6639. Sebold, Hans. **Limitations of communication: Mechanisms of image maintenance in form of selective perception, selective memory and selective distortion.** *J. Commun.*, 1962, 12(3), 142-149.—This study tested the hypothesis that largely only those meanings are perceived and recalled which reinforce prior images. 152 college students completed questionnaires concerning attitudes toward 2 presidential candidates before and after several TV debates. 143 Ss held the same attitudes before and after the debates. The same Ss indicated their agreement or disagreement with a series of statements by the candidates whose authorship was unidentified. Findings suggest that image-maintaining mechanisms function in a way to preserve a favorable image of the candidate or the preferred party and an unfavorable image of the candidate of the opposing party. The effectiveness of mass communication would appear to be subject to serious limitations due to the existence of definite prior images.—D. E. Meister.

6640. Sebeok, Thomas A. (Indiana U.) **Coding in the evolution of signalling behavior.** *Behav. Sci.*, 1962, 7(4), 430-442.—"Speech communication may be studied as an information system, and natural language as the code used in the system. From this point of view it seems useful, on the one hand, to investigate the analog and digital characteristics of hu-

man communication and, on the other, to compare human and animal communication systems as to the manner in which they code information." (118 ref.) —J. Arbib.

Speech & Linguistics

6641. Becker, S. W., Bavelas, A., & Braden, M. (U. Chicago) **An index to measure contingency of English sentences.** *Lang. Speech*, 1961, 4(3), 139-145.—"Several indexes to measure contingency of sentences were constructed by considering nouns, repeated nouns, and total number of words. Contingency was operationally defined as reconstructibility in order to test the several indexes against a criterion. The best form of the index was then selected and retested. The contingency ranking, based on the index, of 10 sections of text correlated 0.84 with reconstructibility ranking. It was concluded that the index is a valid initial approximation to a measure of contingency if contingency is defined as reconstructibility."—A. E. Horowitz.

6642. Bidwell, Charles E. (U. Pittsburgh) **Language, dialect, and nationality in Yugoslavia.** *Hum. Relat.*, 1962, 15(3), 217-225.—Consideration of social and cultural influences on linguistic differences. Frequency of social interaction tends to inhibit linguistic divergence, as is illustrated by the existence of regional dialects and dialects characterizing social, religious, and occupational groups. When divergence is established, it is perceived with other cultural factors as indices of group membership; language thus comes to have a high affective value due to influences of group identification. The interaction of such factors are studied in Yugoslavia's complex situation.—W. W. Meissner.

6643. Black, J. W. (Ohio State U.) **Relationships among fundamental frequency, vocal sound pressure, and rate of speaking.** *Lang. Speech*, 1961, 4(4), 196-199.—"Twenty males who could control their vocal effort to reach specified soft and loud vocal levels, spanning 30 db., practiced and recorded 3 vowels and 3 phrases at 4 levels." . . . Increments in vocal effort were accompanied by increase in fundamental frequency, the latter shifting upward increasingly with successive steps in sound pressure. The vocal changes that occurred from one level of speaking to another were somewhat specific to the material that was spoken. Phrases that were spoken with different amounts of vocal effort, soft to loud, were spoken at the slowest rate when said softly.—A. E. Horowitz.

6644. Chistovich, L. A., & Klaas, YU. A. (Pavlov Inst. Physiology, Acad. Science, Leningrad, USSR) **K analizu skrytogo perioda "proizvol'noi" reaktsii na zvukovoi signal.** [Toward the analysis of the latency of the "voluntary" response to an auditory signal.] *Fiziol. Zh. SSR*, 1962, 48(8), 899-906.—Lists of vowel sounds were recorded on magnetic tape such that individual sounds had a duration of 15, 50, 100, or 200 msec. These were presented to 10 students individually, who were instructed to respond with the same vowel sound. The stimulus and response were recorded on a 2nd magnetic tape. The latency period was found to be constant over all durations of the stimulus sound, although the character of the response was charged with the shorter stimuli. The frequency distribution of latency periods showed

a maximum near 85-100 msec., independent of the character of the sound. Frequent repetition of the stimuli, however, led to extinction of this maximum and the appearance of later, larger maximums. The author discusses the analysis of the latency interval into 2 phases: (a) passive delay and inertial effects and (b) the "activity of delay." A hypothesis is formulated on the chain of events initiated by a stimulus and leading to a response. (22 ref.)—D. G. McDonald.

6645. Drieman, G. H. J. Differences between written and spoken language. *Acta psychol., Amsterdam*, 1962, 20(2), 78-100.—8 psychology students and 8 more highly educated persons responded to a questionnaire on written and spoken language. In speech there is less sifting; but phenomenologically there is little difference between speech and thought. Writing involves absent persons, status and social distance, irrevocability, etc.—hence, induces greater care, concentration, and planning. Writing introduces shorter texts, longer words, more words of many syllables, more attributive qualities, and a more varied vocabulary.—G. Rubin-Rabson.

6646. Feldstein, Stanley, & Jaffe, Joseph. A note about speech disturbances and vocabulary diversity. *J. Commun.*, 1962, 12(3), 166-17.—This is a study of the relationship between 2 noncontent measures of language behavior suggested by previous research to be related to anxiety. Correlations were obtained between the Non-ah Ratios (speech disturbances) and the mean segmental TTRs (vocabulary diversity) for a group of nonpsychiatric patients and a matched group of schizophrenics. Both the mean and variance of the TTR were found to be significantly related to the Non-ah Ratio for the "normal" sample but not for the schizophrenic sample. The findings raise the possibility that the noncontent aspects of emotional expression are patterned differently for normals and schizophrenics.—D. E. Meister.

6647. Goldman-Eisler, F. (University Coll., London, England) Continuity of speech utterance, its determinants and its significance. *Lang. Speech*, 1961, 4(4), 220-231.—"Pause frequency and word length of speech sequences uttered without break (. . . 'phrases') were measured," under 2 conditions and with 3 types of S: (a) psychiatric interviews with their usual participants, (b) discussion of controversial topics by academic personnel and by middle- and working-class adolescent boys. Differences on both measures were found both between situations and Ss.—A. E. Horowitz.

6648. Goldman-Eisler, F. (University Coll., London, England) The distribution of pause durations in speech. *Lang. Speech*, 1961, 4(4), 232-237.—Measures were taken of "the duration of individual pauses and their distribution over extensive tracts of speech uttered in a variety of situations. The determinants isolated include individuals and conditions of speech utterance (social, emotional, cognitive). The analysis of pause time into duration of individual pauses and pause frequency was shown to be more powerful in gauging the type of decision involved in the production of speech than either of these parameters alone."—A. E. Horowitz.

6649. Goldman-Eisler, F. (University Coll., London, England) The significance of changes in the

rate of articulation. *Lang. Speech*, 1961, 4(3), 171-174.—"The term 'rate of articulation' is applied to the absolute rate of speech, i.e. the rate based on the time of vocal speech utterance exclusive of pauses. The significance of its changes was studied in relation to changes in levels of verbal planning and in degrees of spontaneity. The effect of individual differences was also investigated. While articulation rate proved to be a personality constant of remarkable invariance it also reflects the degree of spontaneity in the production of speech. Variations in level of verbal planning were shown to have no effect on the rate of articulation."—A. E. Horowitz.

6650. Herrmann, Theo. (U. Mainz, Saarstr. 21, Germany) Syntaktische Untersuchungen zum unmittelbaren Behalten von Wortketten. [Syntactic studies on short-term retention of word-chains.] *Z. exp. angew. Psychol.*, 1962, 9(3), 397-416.—The retention of 12- and 24-word chains was tested using Miller and Selfridge's technique. 2 coding and correspondent reproduction modes could be distinguished: (a) schematic and confabulatory, (b) reconstructive and pedantic. Syntactic characteristics of the material, instructions, and motivational components determined which of the 2 modes was chosen by the Ss.—W. J. Koppitz.

6651. Humecky, A., & Koutsoudas, A. (U. Michigan) Some further results on the resolution of syntactic function by linear context. *Lang. Speech*, 1961, 4(3), 146-149.—"A modified procedure for identifying the Russian -o/-e/-ee adverbial modifier or predicative complement and providing its correct English equivalent by mechanical translation."—A. E. Horowitz.

6652. Kirillov, N. E., & Fatkin, L. V. (Moscow, USSR) Eksperimenty po opoznavaniyu avtomatami zvukov rechi. [Experiments on the recognition of speech sounds by machines.] *Vop. Psichol.*, 1962, No. 3, 45-56.—This paper deals with the automatic identification of phonemes by their spectral and temporal features. It is shown that spectral characteristics available today fail to afford a sufficiently reliable and practically useful criterion of identification and for this reason can be used only to a limited extent. The temporal features studied which involve distribution of the lengths of intervals between the zero points of the speech clipped to a minimum have enabled a reliable classification of phonemes into groups; the division of groups into component subgroups can be carried on until individual phonemes are isolated.—H. Pick.

6653. Liberman, A., Harris, K., Eimas, P., Lisker, L., & Bastian, J. (Haskins Lab., N. Y.) An effect of learning on speech perception: The discrimination of durations of silence with and without phonemic significance. *Lang. Speech*, 1961, 4(4), 175-195.—Discrimination of various durations of silence "was measured when, as part of a synthetic speech pattern, that variable cued a phonemic distinction and when the same variable appeared in a non-speech context. . . . With acoustic differences equal, discrimination proved to be more acute across the . . . phoneme boundary than within either phoneme category. . . . In the case of the non-speech sounds the durations of silence separated two bursts of noise tailored to match the . . . characteristics of the speech signals. There was, with these stimuli, no appreciable

increase in discrimination in the region corresponding to the location of the phoneme boundary."—A. E. Horowitz.

6654. Mandler, George, & Mandler, Jean M. (U. Toronto, Canada) Associative behaviour and somatic response. *Canad. J. Psychol.*, 1962, 16(4), 331-343.—A nonsense syllable, adjective, magazine photograph, or Rorschach blot was projected on a screen for 30 sec. and S instructed to respond with "all the words that the stimulus brings to mind," while GSR and heart rate were monitored. Ss with a high rate of associative frequency tended to give more idiosyncratic responses and to have shorter response times. "Individual differences in verbal behaviour are not related to differences in physiological response."—R. S. Davidson.

6655. Miller, George A. (Harvard U.) Some psychological studies of grammar. *Amer. Psychologist*, 1962, 17(10), 748-762.—Language is "an extremely complicated human skill." What it consists of and how it functions requires detailed examination. Some satisfactory way of dealing with grammar and its combinatorial processes is required to describe language as a skill. Concepts of modern linguistics are used. Psychological aspects of syntactic structure are considered and specified as important variables to explore. Linguistic theory and empirical studies are cited. "I believe that one of the best ways to study a human mind is by studying the verbal systems that it uses." Such a program is not only important, but immediately possible.—S. J. Lachman.

6656. Peterson, G. E. (U. Michigan) Automatic speech recognition procedures. *Lang. Speech*, 1961, 4(4), 200-219.—Discussion of "the transformation of the varying acoustical parameters of speech to a discrete code to form the printed output of an automatic speech recognizer. The development of general automatic speech recognition procedures requires a definition of the linguistic code to be transcribed, and a statement of the dialectal and other conditions under which the recognition is to be achieved. Essential procedures . . . include: the analysis of the input speech wave into a series of basic acoustical parameters in frequency; the representation of the normalized parameters by a set of phoneme and prosodeme candidates by reference to stored linguistic information; and the print-out into words separated by spaces and grouped by means of a set of punctuation marks."—A. E. Horowitz.

6657. Riegel, K. F., & Riegel, R. M. (U. Michigan) Prediction of word-recognition thresholds on the basis of stimulus-parameters. *Lang. Speech*, 1961, 4(3), 157-170.—"Fifty words were tachistoscopically administered to 24 Ss with an average age of 16.4 years. Of the 40 parameters analyzed, the following were the best predictors of the thresholds and were included in a multiple regression equation:" (a) classification of words into concrete nouns vs. all others, (b) classification of words with vs. without prefixes, (c) logarithms of word-frequencies, (d) number of letters. "The multiple correlation (0.74) and the correlation with the logarithms of word-frequencies (-0.50) are surprisingly low. . . . it was concluded that recognition of words is to a greater degree dependent on the frequency with which Ss had prior experiences with objects (or perceptual images) rather than on the frequency with which Ss had

perceived or used the names attached to them."—A. E. Horowitz.

6658. Smirnov, K. M., Asafov, B. D., & Osipova, O. V. (State U. Leningrad, USSR) Ob elektricheskoi aktivnosti rechevoi muskulatury pri dykhatel'nykh i dvigatel'nykh reaktsiyakh. [The electrical activity of speech muscles during respiratory and motor responses to orders.] *Fiziol. Zh. SSSR*, 1962, 48(11), 1325-1331.—EMG activity of mouth, speech, and shoulder muscles was recorded in various combinations in 7 human Ss ranging from 6 to 47 years of age. A response was observed in the EMG of speech muscles during preliminary instructions and during the execution of respiratory and motor responses. This response was more stable and persistent than the orientational reflex, as measured by the GSR, although with repeated stimulation the response was observed to extinguish. Interpretations of the response are discussed.—D. G. McDonald.

6659. Somers, H. H. (U. Louvain) The measurement of grammatical constraints. *Lang. Speech*, 1961, 4(3), 150-156.—"By means of the coefficient of constraint (D) it is possible to measure the constraint exercised by one grammatical type on another, calculating the redundancy of the nth grammatical type when only the first of the chain is known." The results of the computations are presented, calculated on 3 Greek texts of the New Testament. The conclusion is reached that the constraint is greatest for the 2nd type in the chain, the relative constraint being practically the same for the 3 texts.—A. E. Horowitz.

6660. Taylor, Insup Kim, & Taylor, Maurice M. (Johns Hopkins U.) Phonetic symbolism in four unrelated languages. *Canad. J. Psychol.*, 1962, 16(4), 344-356.—To test whether or not there is an intrinsic correspondence between sounds and meanings, consonant-vowel-consonant nonsense syllables were created by monolingual students from the United States, Japan, Korea, and South India, on the following dimensions: big-small, active-passive, warm-cold, and pleasant-unpleasant. Phonetic symbolism occurred under all conditions tested, but the meanings associated with any particular sound were different from language to language.—R. S. Davidson.

Mass Communication

6661. Bailyn, Lotte; Williams, Raymond; Himmelweit, Hilde T., Seldes, Gilbert; Bogart, Leo; Maz, Veronica; Pool, Ithiel de Sola, & Adler, Barbara. The uses of television. *J. soc. Issues*, 1962, 18(2), 1-61.—". . . the articles that follow cover many topics. Leo Bogart describes some of the characteristics of American commercial television and reviews the knowledge . . . about television's audience and the role it plays in the American home. A more speculative analysis . . . is given by Gilbert Seldes. . . . Raymond Williams discusses the development and present state of British television in relation to . . . British society; Hilde Himmelweit summarizes the principles . . . derived from British research on the effects of television. Finally, two articles deal with educational television in America."—A. Barclay.

ESTHETICS

6662. Frumkin, Robert Martin. (Ohio State U.) Preferences for traditional and modern painting:

An empirical study. *Dissert. Abstr.*, 1962, 22(11), 4106-4107.—*Abstract*.

6663. Lepore, Giuseppe. *Ulteriori ricerche sul Test del Graves*. [Further research on the Graves Judgment Art Test.] *Boll. Psicol. appl.*, 1962, No. 51-52, 15-18.—An Italian scoring key of the Graves Judgment Art Test was constructed, and the correlation between test scores and school grades and between test scores and art interests of 3 groups of students were calculated. Italian art students used as Ss for the adaptation of the test did not differ from the artists used as Ss for the American key. The test proved capable of foreseeing scholastic success in art schools.—*L. V. Steinzor*.

6664. Lundin, R. W., & Allen J. D. (Hamilton Coll.) A technique for training perfect pitch. *Psychol. Rec.*, 1962, 12, 139-146.—Criterion for perfect pitch was correct identification of objectively presented tones. The Ss responded to presentations of taped piano tones "by lighting a corresponding note on an enlarged metal musical staff by means of a button on a control panel in front of him." 3 of the 5 Ss were run for 36 training sessions (24 tonal presentations per session). 1 S, a singer and trained musician, reached the criterion on a post-training test. All Ss showed a significant gain in pitch discrimination during training and improvement from pretest to posttest.—*R. J. Seidel*.

6665. Pelles, Geraldine. The image of the artist. *J. Aesthet. art Crit.*, 1962, 21(2), 119-138.—A description of the changing self and public images and the class status of the artists particularly of the 17th, 18th, and 19th centuries.—*P. R. Farnsworth*.

6666. Reimer, Bennett. (U. Illinois) Leonard Meyer's theory of value and greatness in music. *J. Res. music Educ.*, 1962, 10(2), 87-99.—A discussion of Meyer's *Emotion and Meaning in Music* (1956) and "Some Remarks on Value and Greatness in Music" (see 34: 7437) and their implications in "the formulation of a philosophy of music education broad enough to take into account music's potential as an agent of self-realization."—*D. S. Higbee*.

6667. Schneider, Daniel E. *The psychoanalyst and the artist*. New York: New American Library, 1962. xii, 236 p. \$.75 (paper).—A paperback edition of a book originally published in 1950.

6668. Wellek, Albert. (U. Mainz) The relationship between music and poetry. *J. Aesthet. art Crit.*, 1962, 21(2), 149-156.—After differentiating between tone painting and program music, this German psychologist offers his views on the conditions under which titles, mottoes, and programs are appropriate to music. The article ends with a consideration of what can be set to music.—*P. R. Farnsworth*.

6669. Yingling, Robert W. Classification of reaction patterns in listening to music. *J. Res. music Educ.*, 1962, 10(2), 105-120.—Results suggest that exposure to a college-level course in music appreciation tends to encourage intellectual analysis over more emotional response.—*D. S. Higbee*.

PERSONALITY & ABILITIES

6670. American Academy of Pediatrics Committee on the Handicapped Child. (Evanston, Ill.) *The application of psychological and psychometric*

testing data to pediatric practice. Evanston, Ill.: AAP, 1962. 21 p.—A general introduction to psychological tests for pediatricians: intelligence tests, social maturity tests, educational achievement and aptitude tests, projective tests, and tests for handicapped children. (Glossary, 38 ref.)—*J. T. Cowles*.

6671. Bannister, D. *Personal construct theory: A summary and experimental paradigm*. *Acta psychol.*, Amsterdam, 1962, 20(2), 104-120.—Kelley's Personal Construct theory with its fundamental postulate and 11 elaborate corollaries is reviewed, as well as the Repertory Grid Test, technique for defining construing. 20 adults responded to 20 photographs in testing 3 hypotheses: constructs within a single subsystem will be structurally related; within one culture each individual tends to have construct relationship patterns which are similar to those of other individuals; it is possible to have significant relationships between constructs for individual Ss and similarity of patterning of construct relationships between Ss without any consensus of agreement about the nature of the elements construed. The results indicated that it is theoretically and experimentally meaningful to talk of construct systems as independent of the particular elements construed.—*G. Rubin-Rabson*.

6672. Dollard, John; Doob, Leonard W., Miller, Neal E., Mowrer, O. H., & Sears, Robert R. *Frustration and aggression*. New Haven, Conn.: Yale Univ. Press, 1961. 209 p. \$1.25 (paper).—A reprint of the book originally published in 1939.

6673. Dudley, Geoffrey A. *Your personality and how to use it*. New York: Emerson, 1962. 160 p. \$2.95.—"The book is written in simple terms for the ordinary man or woman seeking to learn more about his personality."—*C. T. Morgan*.

6674. Kolaříková, L. (Brno, Czechoslovakia) *Projekt osobnosti v psychologii*. [The conception of personality in psychology.] *Ceskoslov Psychol.*, 1962, 6(2), 131-142.—Personality traits are important factors in the adjustment of the individual to self and society. Qualities of personality are only relatively constant and can be differentiated at 3 levels: general, particular, and individual. Genetic research is inevitable. (English & Russian summaries, 31 ref.)—*V. Bricháček*.

6675. Lindner, Robert. *Prescription for rebellion*. New York: Grove (Evergreen), 1962. 305 p. \$1.95 (paper).—A paperback edition of a book originally published in 1952.

6676. Pastuszka, Józef. *Charakter człowieka*. [Human character.] Lublin, Poland: Towarzystwo Naukowe Katolickiego Uniwersytetu Lubelskiego, 1959. 427 p.—The book reviews and summarizes some of the recent developments in character formation. There are 5 major sections dealing with understanding, structure, genesis, typology, and diagnosis of character.—*H. Kaczowski*.

6677. Sarnoff, Irving. (New York U.) *Personality dynamics and development*. New York: Wiley, 1962. xv, 572 p. \$7.75.—The author integrates psychoanalytic theory and empirical research in his development of a theory of personality growth and development in the normal individual. Personality changes are discussed for several developmental levels, e.g., "The child's modes of perception and

thought; The prepubescent child and the impact of adolescence; Personality development in old age." 4 chapters are devoted to a discussion of the functions of the ego and the ego defence mechanisms. The author emphasizes the need for more empirical investigations of personality development.—*S. I. Offenbach*.

6678. Seeman, W., & Marks, P. A. (U. Cincinnati) A study of some "test dimensions" concepts. *J. prof. Tech.*, 1962, 26(4), 469-473.—Rankings of 7 widely used psychological tests by experienced clinicians placed the Rorschach high in stimulus ambiguity, response freedom, and depth. The Strong was ranked lowest in these 3 dimensions. There was a significant correlation between ratings of stimulus ambiguity, response freedom, and depth.—*A. F. Greenwald*.

6679. Sherif, Muzafer. (U. Oklahoma) The self and reference groups: Meeting ground of individual and group approaches. *Ann. N. Y. Acad. Sci.*, 1962, 96(3), 797-813.—Primarily group-centered or primarily individual-centered approaches to an individual's personal relatedness to his environment are both inadequate. The reference group concept integrates sociocultural setting with self conception. It directs attention to subject-object relationships inherent in any motivational system. Objects may be immediately present or conceptual. Reference group relations in particular dimensions and the interrelations among dimensions enable the study of personal consistencies and inconsistencies. (55 ref.)—*B. S. Aaronson*.

6680. Skawran, Paul Robert. Person und Persönlichkeit. [Person and personality.] *Psychol. Rdsch.*, 1963, 14(1), 26-43.—Psychology is foremost the science of the human psyche. A firm dividing line is drawn between psychology and behavioral or physiological disciplines. Person and personality are, in such a psychological system, key concepts. Descent, nature, and destination of man are incorporated in the person-concept while personality is defined as emanation of the person, the degree to which man succeeds in overcoming his subjective image and in fulfilling his destination.—*W. J. Koppitz*.

6681. Toomey, Laura Carolyn. (U. Connecticut) Factors affecting empathic performance. *Dissert. Abstr.*, 1962, 22(8), 2880.—Abstract.

NEW TESTS AND TEST CONSTRUCTION

6682. Kumar, P. Revision of Asthanas' Adjustment Inventory. *J. voc. educ. Guid., Baroda*, 1961, 7(3), 128-134.—This Hindustani Adjustment Inventory, originally designed to screen out poorly adjusted noncollege students, was revised for similar use with a group of 100 adult (engineering) students. An item analysis here revealed 40 highly valid items to constitute the revised inventory. Split-half reliability was .88. Tentative revised percentile norms are provided.—*W. L. Barnette, Jr.*

6683. Mosher, Donald Leo. (Ohio State U.) The development and validation of a sentence completion measure of guilt. *Dissert. Abstr.*, 1962, 22(7), 2468-2469.—Abstract.

6684. Parameswaran, E. G., & Oliver, A. G. (Madras, India) An ascendance-submission inventory for use with adolescents. *Indian J. Psy-*

chol., 1961, 36(4), 149-154.—The development of an adaptation of the Allport A-S Reaction Study for use with Tamil-speaking adolescents in India is described. A single form of 46 items was translated and adapted from the Allport inventory, omitting questions inappropriate for this Indian culture, adding substitutes, and using uniformly 3 alternative choices to each question. It was keyed on criterion subgroups of high school students, and validated against additional teachers' ratings. Satisfactory test-retest and split-half reliabilities appear to have been obtained, as well as correlation with the teachers' ratings of ascendance-submission.—*J. T. Cowles*.

6685. Strickler, Lawrence John. (New York U.) Some item characteristics that evoke acquiescent and social desirability response sets on psychological scales. *Dissert. Abstr.*, 1962, 22(11), 4077-4078.—Abstract.

TEST STANDARDIZATION & EVALUATION

6686. Borgatta, E. F., & Meyer, H. J. The reliability of an objective sentence completion scoring technique. *J. soc. Psychol.*, 1962, 58(1), 163-166.—Reliability data are presented for the Make A Sentence Test (MAST) based on 2 samples of 166 and 168 adolescent girls representing control and experimental Ss in a program of research. After 8 months all but 1 of the 11 scoring categories had statistically significant correlation coefficients in both samples. Compared to the Cattell Junior Personality Quiz (JPQ), the median correlation coefficients were lower .33 and .35 compared to .43 and .49, but the MAST categories tended to be relatively independent while over a quarter of the JPQ categories were significantly related.—*Author abstract*.

6687. Bose, P. K. (Calcutta, India) Construction of norm test indices in test theory. *Indian J. Psychol.*, 1961, 36(4), 173-177.—An index of intertest fluctuation is derived and illustrated with data from West Bengal secondary school examinations in various subjects. The index is based on ratios of selected percentile raw scores of a given test and equivalent scores of a standard test, and continued for successive test administrations.—*J. T. Cowles*.

6688. Germain, José, & Pascual, Marcelo. (Madrid, Spain) Test Mosaico Gille: Normas de aplicación y baremos. [Gille Mosaic Test: Administration procedures and norms.] *Rev. Psicol., gen. apl.*, 1961, 16(Whole No. 60), 845-857.—The authors present a complete Spanish manual for administration of the Gille Mosaic Test. Percentile scales are included for 2 groups of Madrid students.—*E. B. Page*.

6689. Hawkinson, John Russell. (U. Minnesota) A study of the construct validity of Barron's Ego Strength scale with a state mental hospital population. *Dissert. Abstr.*, 4081.—Abstract.

6690. Kulkarni, Sharadchandra Shankar. (Purdue U.) A Marathi revision of the S. R. A. Youth Inventory: A cross cultural study. *Dissert. Abstr.*, 1962, 22(9), 3261.—Abstract.

6691. Kumar, P. A comparison of two adjustment scales. *J. voc. educ. Guid., Baroda*, 1961, 7(4), 163-166.—A comparison of the earlier Hindustani Adjustment Inventory by Asthana, designed for detection of poorly adjusted grade school students in India, with the author's revised Adjustment Inven-

tory developed on a group of engineering students. Both inventories were given to 108 engineering students with a r of .71. Despite this, the revised inventory is considered the more sensitive since it labels (correctly, in the author's opinion) more of the engineering students as well adjusted than does the earlier version of the inventory.—*W. L. Barnette, Jr.*

6692. McDonald, Robert L., & Gynther, Malcolm D. (Medical Coll. South Carolina) **MMPI norms for southern adolescent Negroes.** *J. soc. Psychol.*, 1962, 58(2), 277-282.—MMPIs were obtained from 354 Negroes and 263 white high school seniors from urban segregated schools. Inter-racial comparisons of mean scale scores indicated a need for separate racial norms. In addition, comparison of the Negro intersex mean scale scores indicated a need for separate norms for both Negro males and females.—*Author abstract.*

6693. Schuman, E. P. **A scoring rationale for the Sargent Test of Insight into Human Motives.** *J. proj. Tech.*, 1962, 26(4), 462-468.—Interjudge reliabilities range from .81 to .99 using comprehensive and detailed scoring rules. Test-retest reliability was less satisfactory but higher than that reported by Sargent. It is suggested that further refinement of the modified scoring procedure could contribute to the effectiveness and usefulness of this technique.—*A. F. Greenwald.*

INTELLIGENCE & CREATIVITY

6694. ———. **Frequency curves and the ability of nations: Part II.** *Brit. J. statist. Psychol.*, 1962, 15(1), 80-92.—Although the article is unsigned, apparently it is M. Howard's reply to the points raised by Isaacs [see 37: 6700] in his comments on earlier articles by Burt, Howard, and others.—*N. Earl.*

6695. Burt, Cyril. (University Coll., London, England) **The gifted child.** *Brit. J. statist. Psychol.*, 1961, 14(2), 123-139.—Examined are "certain arguments recently advanced to show that the range of individual differences due to genetic selection is too slight to be of practical importance, and in particular that the abilities of gifted individuals are the result of their early environmental opportunities rather than of their genetic constitution. In reply two new pieces of evidence are brought forward: (i) data demonstrating the wide range of variation to be found among children reared under very similar conditions; (ii) after-histories of persons of high ability whose environment offered an impediment rather than aid to their intellectual development. An estimate is made of the relative frequency of gifted individuals in different socio-economic classes, and suggestions are put forward for improving methods of selection of gifted children of high ability." (19 ref.)—*H. P. Kelley.*

6696. Garwood, Dorothy Semenow. (Claremont Graduate School) **Some personality factors related to creativity in young scientists.** *Dissert. Abstr.*, 22(9), 3273.—*Abstract.*

6697. Gemant, Andrew. (Detroit, Mich.) **The nature of the genius.** Springfield, Ill.: Charles C Thomas, 1961. x, 206 p. \$6.50.—A popular account with anecdotes relating to composers, artists, authors, and scientists.—*A. F. Isaacs.*

6698. Guilford, J. P. (U. Southern California, Los Angeles) **Potentiality for creativity.** *Gifted Child Quart.*, 1962, 6(3), 87-90.—Divergent thinking and transformation abilities contribute directly to the structure of creative thinking. Included among the former are multiple responses appropriate to stimuli, fluency, flexibility, and elaboration abilities; among the latter are redefinition, revision, and freedom from fixedness abilities. Identification of the primary mental abilities inherent in all courses of instruction, moreover, is underway. Algebra and general math courses are cited as examples. Caution is urged in generalizing from a proclivity in one area to another. Also the signs associated with creativity in the arts may be different from those associated with talent in the sciences.—*N. M. Chansky.*

6699. Houston, John P., & Mednick, Sarnoff A. (U. Michigan) **Creativity and the need for novelty.** *J. abnorm. soc. Psychol.*, 1963, 66(2), 137-141.—An experiment designed to demonstrate the reinforcing properties of associative novelty for creative Ss. 60 undergraduates were separated into high (HC) and low (LC) creativity groups on the basis of their scores on the Remote Associates Test. Ss were then presented with a series of pairs of words (each pair containing a noun and a nonnoun) and asked to choose the word they preferred. The choice of a noun was followed by a novel association to that noun. Nonnoun choices were followed by common associations. The HC group significantly increased and the LC group significantly decreased the frequency of their noun choices over the series of pairs. The results support the need for novelty hypothesis.—*Journal abstract.*

6700. Isaacs, J. F. **Frequency curves and the ability of nations: Part I.** *Brit. J. statist. Psychol.*, 1962, 15(1), 76-79.—The author discusses apparent inconsistencies in the assumptions adopted by Burt, Howard, and others in their discussions of frequency distributions resulting from tests of general intelligence as related to eugenics.—*N. Earl.*

6701. Jalota, S. (Panjab U., Chandigarh, India) **A comparative study of intelligence scores by rural and urban school children.** *J. voc. educ. Guid., Baroda*, 1961-62, 8(2-3), 6-7.—A short summary of 4 studies, 3 of which employed a mental ability scale developed at Banaras University, dealing with the typically higher mean scores of urban children compared to rural. 1 of the 4 studies failed to find the expected difference which the author attributes to special features of the particular test format.—*W. L. Barnette, Jr.*

6702. Kidd, Aline H. (Agnews State Hosp.) **The culture-fair aspects of Cattell's Test of g: Culture-Free.** *J. genet. Psychol.*, 1962, 101(2), 343-362.—This was an investigation to determine which items of the test of g were the more culture-fair and which aspects of intelligence were actually measured. The test of g and the culturally-weighted Stanford-Binet, Form L, were administered to 100 children, Anglos and Mexican-Americans, of differing economic status. A positive relationship was found between scores on the 2 tests. Significant differences, arising primarily from differences between the lower class groups, were found between national groups, economic levels, and test used. An item analysis showed that 22 test of g and 3 Binet items were prob-

ably culture-fair in that they did not differentiate between cultural groups or economic levels. A factor analysis of these items produced 4 reference vectors: (a) Ability to overcome Inappropriate Set, (b) Localization, (c) Magnitude, and (d) Progression. A 2nd-order factor analysis produced 2 general reference vectors: (a) Recognition of Total Figure-Ground Relationships and (b) Set. Both 1st- and 2nd-Order reference vectors appeared to operate similarly within all groups used in this study.—*Author abstract.*

6703. Metz, Werner A. (Florida State U.) **The relative effects of stress and praise on creativity.** *Dissert. Abstr.*, 1962, 22(8), 2885-2886.—*Abstract.*

6704. Morin, J. G 52: **Test d'intelligence pour Nord-Africains illettrés.** [G 52: A test of intelligence for North-African illiterates.] *Travail hum.*, 1962, 25(3-4), 353-364.—Several thousand tests, chiefly involving cubes and other patterns, were given Moroccan and Algerian illiterates, and intercorrelations among the various subtests are presented. The author points out the difficulty in estimating validity and reliability because too few could be tested a 2nd time and the nature of the material prevented a split-half technique.—*R. W. Husband.*

6705. Morrison, Robert Floyd. (Purdue U.) **Factored life history antecedents of industrial research performance.** *Dissert. Abstr.*, 1962, 22(7), 2459.—*Abstract.*

6706. Pinneau, Samuel R. **Changes in intelligence quotient: Infancy to maturity.** Boston, Mass.: Houghton Mifflin, 1961. iv, 233 p. \$4.60.—The author directs his coverage to the consistency of the intelligence quotient from early infancy to late adolescence, the development of accurate mental age scores and revised IQ tables for the 1960 revision of the Stanford-Binet scales, the tabulation of IQ changes with age, and the rate of mental maturation by Ss of different levels of ability. The book is both a research report and a handbook for members of professional groups who evaluate the performance of individuals on the Stanford-Binet or comparable tests of intelligence. Application of mental assessment to typical problems in pre-adoption testing, educational applications, and counseling applications are discussed.—*L. G. Schmidt.*

6707. Torrance, E. Paul. (U. Minnesota, Minneapolis) **Cultural discontinuities and the development of originality of thinking.** *Except. Children*, 1962, 29(1), 2-13.—For purposes of assessment of originality of thinking, approximately 1000 pupils in Grades 1 through 6 were studied in each of these cultural sub-divisions: Australia, United States-Negro, Germany, India, Samoa, and the United States. In our culture and similarly elsewhere except in Samoa, the generalized development curve of the creative thinking abilities contained discontinuities: drops in creativity occurred at beginning kindergarten, end of 3rd grade or beginning 4th, during 7th grade, and a slight drop or leveling off at end of high school. These stages were felt to correspond to "Harry Stack Sullivan's (1953) conceptualization of the stages of development of inter-personal skills."—*J. Z. Elias.*

6708. Torrance, E. P. (U. Minnesota) **Non-test ways of identifying the creatively gifted.** *Gifted Child Quart.*, 1962, 6(3), 71-75.—Factors

hindering revelation of creative abilities through tests are presented. The discrepancies between overt exploratory behavior of children in and out of school justifies a redefinition of creative behavior. Parent descriptions of creative children and a check list developed by teachers and counsellors attending a creative thinking seminar provided the data from which tentative definitions were developed. Specific non-test devices itemized were play activities, school tests, curiosity behavior, reaction to crises, and student self ratings on sensitivity to problems, flexibility, fluency originality, elaboration, and redefinition types of thinking.—*N. M. Chansky.*

PERSONALITY MEASUREMENT

6709. Anderson, Wayne; Kuncze, Joseph, & Baxter, John. (Jefferson Barracks VA Hosp.) **Maze score and job performance in psychiatric patients.** *J. counsel. Psychol.*, 1962, 9(2), 173-175.—Scores on a circular pencil maze test were related to job performance. "... variables describing work performance are more highly interrelated among each other than they are to variables imputed to describe ... personality functioning."—*E. R. Oetting.*

6710. Armatas, James P., & Collister, E. Gordon. (VA Cent., Wadsworth, Kan.) **Personality correlates of SVIB patterns.** *J. counsel. Psychol.*, 1962, 9(2), 149-154.—The Edwards Personal Preference Schedule, the 16 Personality Factor test, the Inventory of Beliefs, placement scores, grade point, and course grades are compared for groups showing differences in response set on the SVIB. Partial support for personality types based on response sets is presented.—*E. R. Oetting.*

6711. Furuno, Setsu. (New York U.) **Mid-group respondents to the F Scale and their relationship to high and low authoritarianism.** *Dissert. Abstr.*, 1962, 22(11), 4079.—*Abstract.*

6712. George, E. A., & Baby, E. T. (Kerla U., India) **Study of personality: Dimensional approach. Part I.** *J. voc. educ. Guid., Baroda*, 1962, 8(4), 7-16.—A report largely summarizing the work of Eysenck regarding personality measurement (neuroticism factor, extroversion-introversion, normal-psychotic dimension). It is planned to duplicate this work on an Indian population. In addition, the authors hope to correlate the Eysenck tests and factors against an outside criterion (psychiatrist judgments). The MMPI is also to be administered.—*W. L. Barnette, Jr.*

6713. Griffith, Albert Victor. (U. Alabama) **Reconciliation of contradictions and self-expressive styles as related to choice of a fascination group.** *Dissert. Abstr.*, 1962, 22(7), 2465-2466.—*Abstract.*

6714. Hart, H. C. (Bryce Hosp., Tuscaloosa, Ala.) **Piaget test of immanent justice responses compared for several patient-nonpatient populations.** *J. genet. Psychol.*, 1962, 101(2), 333-341.—2 tests from Piaget's concept of immanent justice were administered to 300 Ss, including 48 college students, 80 applicants for employment at a state hospital, 72 hospitalized nonschizophrenic, and 100 hospitalized schizophrenic patients, of both sexes. Regression to an earlier concept of justice was seen in the male Ss in a regular progression from the college

group to the hospitalized schizophrenic group. Such a progression was not seen in the female group. A significant difference between the sexes in the college and employee groups but not for the hospitalized groups was found.—*Author abstract.*

6715. Jenkins, Thomas N. (New York U.) **Measurement of the primary factors of the total personality.** *J. Psychol.*, 1962, 54(2), 417-442.—As the result of a 20-year investigation of personality structure, 128 primary trait factors were isolated. The procedure for this long-term study was methodical exploration followed by cluster or factor analysis. A basic conflict emerged between the results of content analysis and quantitative analysis. This conflict eventuated in a new approach in dealing with personality variables. After the 128 trait factors were thoroughly validated by means of diverse sampling, scoring categories were developed for each primary trait. Trait descriptions are included in this article.—*Author abstract.*

6716. Khan, Lilian. (Calcutta, India) **Factor analysis of certain aptitude and personality correlates.** *Indian J. Psychol.*, 1962, 37(1), 27-38.—Stone's Structured-Objective Rorschach Test, the Guilford-Zimmerman Temperament Survey, and Seigal's Multiple Aptitude Test battery were administered to 110 salaried workers of the Kaiser Steel Corporation of Fontana, California. The 34 variables, after conversion to stanines, were factor analyzed; and an orthogonal solution was obtained by verimax method using the Iliac computer. The author identifies 11 factors, 8 of which appear to correspond with factors hypothesized in advance, thereby giving evidence for construct validity of the tests utilized. (31 ref.)—*J. T. Cowles.*

6717. Knapp, R. H., Gewirtz, H., & Holzberg, J. D. (Wesleyan U.) **Some personality correlates of styles of interpersonal thought.** *J. proj. Tech.*, 1962, 26(4), 398-403.—"This paper described the rationale and development of an Interpersonal Transactional Inventory [ITI] consisting of diadic propositions of four pronouns as subject and object and four acts or verbs linking subject and object in an interpersonal transaction." 33 personality measures from 6 psychological tests comprised the independent variables which were factorially related to measures from the ITI. Some suggestions for future research are posed by the authors.—*A. F. Greenwald.*

6718. Lichtenstein, Edward. (U. Michigan) **The relation of three cognitive controls to some perceptual and personality variables.** *Dissert. Abstr.*, 1962, 22(7), 2467.—*Abstract.*

6719. Luoto, Kenneth. (U. Pittsburgh) **The differential effects of personality, placebos and suggestion on timing behavior.** *Dissert. Abstr.*, 1962, 22(11), 4083-4084.—*Abstract.*

6720. McGee, Richard K. (Moccasin Bend Psychiatric Hosp., Chattanooga, Tenn.) **Response style as a personality variable: By what criterion?** *Psychol. Bull.*, 1962, 59(4), 284-295.—Investigation of response variables as predictors of underlying personality traits of the responders "have provided meaningful abstract descriptions of the personalities of individuals with certain response style tendencies, but little real defensible data to tie response styles to the criterion of independently measured behavior."

Specific recommendations for future research strategies are proposed.—*W. J. Meyer.*

6721. Merz, F. **Über die Beurteilung der persönlichen Eigenart unserer Mitmenschen.** [Judgment of personal characteristics of associates.] *Arch. ges. Psychol.*, 1962, 114(2), 187-211.—Each of 71 male high school graduates, rating on a 7-point scale, judged his best friend, his most esteemed superior, the most unpleasant person he had ever known, 3 other males, and finally himself on 40 different personality traits. Results show the judgments evidently are influenced by and depend on the existing social relations between the person rating and the person being judged. The author attributes lack of agreement between judgments of the same person to inconsistency in the behavior of the persons being rated rather than on the incorrectness of the various raters in their judgments.—*K. J. Hartman.*

6722. Mitchell, James V., Jr. (U. Texas) **An analysis of the factorial dimensions of the Bills' Index of Adjustment and Values.** *J. soc. Psychol.*, 1962, 58(2), 331-337.—The 49 items of the self-concept section of the Bills' Index of Adjustment and Values were subject to a centroid factor analysis. 7 factors were extracted and rotated by Kaiser's Varimax method. The factors were identified as (a) Freedom from Anxiety, (b) Motivation for Intellectual Achievement, (c) Offensive Social Conduct, (d) Social Poise and Self Confidence, (e) Warm-Hearted Attitude toward Others, (f) Impersonal Efficiency, and (g) Dependability. In interpreting the results it was pointed out that many of these factors have their parallels in factors reported by Cattell and Eysenck. Several practical implications for the index were also noted: (a) there is little factorial justification for the use of a single "self-concept" score, (b) the "self-acceptance" score may represent as many different patterns of acceptance-rejection as there are combinations of factors for the self-concept section of the index, and (c) consideration should be given to the development of new scoring methods which would reflect the basic factorial structure of the index.—*Author abstract.*

6723. Rimland, Bernard. (USN, San Diego) **Personality test faking: Expressed willingness to fake as affected by anonymity and instructional set.** *Educ. psychol. Measmt.*, 1962, 22(4), 747-751.—In response to both signed and unsigned questionnaires, "about two-thirds of a sample of 873 students stated they would respond honestly or essentially with honesty. About one-fourth indicated they would shade their answers to some extent, and 7% admitted to all-out falsification." Other research has demonstrated the effect of instruction-induced response set on willingness to fake.—*W. Coleman.*

6724. Schlicht, William John. (New York U.) **Differences in learning and selective recall as related to need achievement.** *Dissert. Abstr.*, 1962, 22(11), 4087.—*Abstract.*

6725. Schulberg, H. C., & Tolor, A. (Fairfield State Hosp.) **The "meaning" of the Bender-Gestalt Test designs to psychiatric patients.** *J. proj. Tech.*, 1962, 26(4), 455-461.—Hospitalized psychiatric patients rated each Bender-Gestalt figure on 20 scales of the Semantic Differential and responded differentially to the 9 Bender figures. However, 4 diagnostic groups did not differ in the meanings

attributed to the designs, so that the stimulus value of the figures does not appear to influence the quality of reproduction.—*A. F. Greenwald.*

6726. **Smith, Madorah E.** (U. Hawaii) The values most highly esteemed by men and women in *Who's Who* suggested as one reason for the great difference in representation of the two sexes in those books. *J. soc. Psychol.*, 1962, 58(2), 339-344.—The hypothesis was that those values esteemed more highly by men would be found to be more frequently associated with the occupations or careers of persons listed in *Who's Who in America* and a relatively higher proportion of women listed would be found following careers or occupations which have been found to be associated with aesthetic, social, or religious values; those values which women have been found to value more highly. Studies based on the Allport-Vernon-Lindsey Scale of Values were used in assigning the different occupations which the men and women in *Who's Who in America* were listed as following. The hypothesis was confirmed.—*Author abstract.*

6727. **Waters, L. K., & Wherry, R. J., Jr.** (USN School Aviation Medicine) The effect of intent to bias on forced-choice indices. *Personnel Psychol.*, 1962, 15(2), 207-214.—Indices reflecting varying degrees of response bias were obtained from check-list administrations of a sample of statements incorporated into forced-choice blocks and administered to 3 independent groups under instructions designed to induce varying degrees of response bias. Correlations between index deviation values and frequencies of statement choice were of greater magnitude when the degree of response bias in the check-list and forced-choice administrations was similar.—*A. S. Thompson.*

6728. **Weiss, Robert Frank, & Passamanick, Benjamin.** (Ohio State U.) Individual and group goals: A factor analysis. *J. soc. Psychol.*, 1962, 58(1), 131-139.—Jewish college students answered a questionnaire concerning their aspirations for themselves and for American Jews in 6 goal areas. Also included in the analysis were indices of emotion aroused by individual and group problems, perceived controllability of such problems, cooperation-conflict in the achievement of goals, rewards of group membership, and fear of group sanctions and alienation. The 50 × 50 matrix of intercorrelations was factored by the centroid method. In support of a previous study, a factor concerned with hopes, intentions, and "trying" (but not expectations), and extending across both individual and group goals, was obtained. Emotion aroused by individual or group problems, fear of group sanctions, and controllability had high loadings on this factor, supporting the interpretation of a drive dimension. Other factors included Judgment (expectation), Individual vs. Group Goals, and Cooperation-Competition.—*Author abstract.*

Inventories

6729. **Banerjee, Debabrata, & Mallick, Amal K.** (Calcutta, India) Form of Bengali language as a determinant of ideas contained in the items of a foreign personality inventory. *Indian J. Psychol.*, 1962, 37(1), 23-26.—Ratings by 12 judges are compared for the adequacy of translation of items of an academic English personality inventory (Eysenck)

into academic and colloquial Bengali, respectively.—*J. T. Cowles.*

6730. **Bell, Richard Q.** (National Inst. Mental Health) Isolation of elevation and scatter components in personality and attitude questionnaires. *Educ. psychol. Measmt.*, 1962, 22(4), 699-713.—Cronbach and Gleser's analysis of profile elements into elevation, scatter, and shape was applied. The procedure used involved "obtaining a measure of the shape of the subject's item response profile by standardizing responses using the subject's own mean and standard deviation of item weights for response categories endorsed." Since general response tendencies may affect item intercorrelations and scale homogeneity, isolation of elevation and scatter components in inventories is urged.—*W. Coleman.*

6731. **Edwards, Allen L., & Diers, Carol Jean.** (U. Washington) Social desirability and conflict. *J. soc. Psychol.*, 1962, 58(2), 349-356.—Male and female Ss were divided into high and low groups on the basis of scores on Edwards' Social Desirability scale (SD). All 4 groups of Ss had previously taken the Edwards Personal Preference Schedule (EPPS) with permission to avoid responses to difficult choices. 4 sets of 20 items each were selected from the EPPS, 2 containing statements with socially undesirable and 2 with socially desirable scale values in an effort to represent avoidance-avoidance and approach-approach conflicts. The dependent variable was the percentage of no-choice responses to each item. The trend of the set means was much the same for each group and none of the interactions was significant. Choosing between pairs of socially undesirable statements was more difficult than between statements with socially desirable scale values. The probability of a no-choice response correlated $-.85$ with the average social desirability scale values of the pairs of statements. The tendency to give no-choice responses appears to qualify as a response set, which was found to be highly reliable and only slightly correlated with scores on the SD scale and the number of "?" responses to the items in Welsh's Repression scale.—*Author abstract.*

6732. **Garrison, Karl C., & Scott, Mary Hughie.** (U. Georgia) The relationship of selected personal characteristics to the needs of college students preparing to teach. *Educ. psychol. Measmt.*, 1962, 22(4), 753-758.—The Edwards Personal Preference Schedule (EPPS) was given to 482 women education students ranging from sophomores to 1st-year graduates. The mean scores for the 15 personal needs measured by the EPPS were compared with 12 "personal characteristics." These included such variables as ordinal of birth in family, educational level of each parent, father's occupation, and major reason for college attendance. Of 180 F-tests, 23 were significant at the .01 level and 15 at the .05 level. "The need for affiliation was unrelated to any of the twelve personal characteristics." It is suggested that the lack of marked trends may be attributable to the limited validity of the EPPS for measuring needs.—*W. Coleman.*

6733. **Hartley, Raymond E., & Allen, Robert M.** (U. Miami) The Minnesota Multiphasic Personality Inventory (MMPI) and the Edwards Personal Preference Schedule (EPPS): A factor analytic study. *J. soc. Psychol.*, 1962, 58(1), 153-

162.—The raw scores of the MMPI and the EPPS records of 130 male and female college students were factor analyzed. The purposes were to ascertain the presence of a validity factor common to both inventories and whether these 2 instruments were sufficiently different factorially as to be evaluating personality dimensions with little overlap. 10 factors were extracted, including a validity factor. Of the 10 factors, 4 showed no overlap in terms of individual scale variables, 1 factor appeared equally on both inventories, and the remaining 5 factors displayed varying degrees of freedom and overlap for both tests.—*Author abstract.*

6734. Mattoon, Paul F. After-contraction as a function of extraversion and central inhibition. *Acta psychol., Amsterdam*, 1962, 20(2), 121-127.—Do introverts have a longer period of after-contraction than extraverts? 17 paid Ss, 18-45, took the Maudsley Personality Inventory, a sway test, and a spiral aftereffects test as well as an after-contraction test. The theoretical prediction was confirmed.—*G. Rubin-Rabson.*

6735. Solomon, Leonard, & Klein, Edward. (Boston U.) The relationship between agreeing response set and social desirability. *J. abnorm. soc. Psychol.*, 1963, 66(2), 176-179.—3 measures of response set and 5 content scales were administered to 125 schizophrenic patients and 135 college Ss. The data indicate that the Overall Agreement Score which ostensibly measures an agreeing response set also contains negative social desirability (SD). SD_{18} also appears to have a naysaying element in it. The results also show that truly balanced measures of acquiescence and Social Desirability might very well be orthogonal to each other and support both sets of authors' contentions that their scales are not necessarily associated with elements of the other response set.—*Journal abstract.*

6736. Super, Donald E., & Mowry, James G., Jr. (Columbia U.) Social and personal desirability in the assessment of work values. *Educ. psychol. Measmt.*, 1962, 22(4), 715-719.—"To determine the social desirability of 15 work value descriptions, 23 male clients of a YMCA vocational guidance center and 14 male and female graduate students at Teachers College, Columbia University, completed an inventory of work values in terms of social desirability." The values were rated in accordance with the generally accepted value hierarchy. Through the use of a 2nd group of 26 male counseling clients, significant differences were obtained in rating altruism depending upon whether the instructions encouraged social desirability or personal desirability. No significant differences were obtained for the other 13 values when the 2 instructions were used.—*W. Coleman.*

Projective Methods

6737. Hirt, Michael. (Ed.) Rorschach science: Readings in theory and method. New York: Free Press Glencoe, 1962. ix, 438 p. \$8.50.—Presents a collection of papers designed to encourage a more critical evaluation of the Rorschach and to clarify some of the major problems of behavior measurement through projective techniques. Included papers confront broad methodological issues and not specific clinical applications. Within this general methodological framework, problems of validity, reliability,

interpretation and scoring, as well as the current status of the Rorschach are considered. (193-item bibliogr.)—*A. F. Greenwald.*

6738. Ismir, A. A. (U. North Dakota) The effects of prior knowledge of the Thematic Apperception Test on test performance. *Psychol. Rec.*, 1962, 12, 157-164.—An experimental group was told that the test indicates presence or absence of mental illness and various types of hidden problems. 5 pictures out of the standard set were then administered to the experimental group and a control group matched for scores on the Social Desirability Scale. Ss with prior knowledge gave "healthier" responses.—*R. J. Seidel.*

6739. Jenkins, Thomas N. (New York U.) The primary trait anatomy of the MMPI. *J. Psychol.*, 1963, 55(1), 49-61.—This was a primary trait analysis of the validity, clinical, and nonclinical scales of the MMPI. These scales were correlated with 128 primary trait scores of the Jenkins Global Personality Inventory. The trait scores were classified into 8 superfactorial syndromes, such as, adrenergic, cholinergic, and sensory ascendance. The Ss were 104 college women and 151 college men. The results were clear-cut and highly significant statistically. The greatest concentration of trait loadings for the validity scales was in the adrenergic syndrome. The analyses showed that the D scale is a composite of 2 independent sets of traits, and hence should be broken down into 2 subscales. The trait patterns for Hs, Pa, Pt, and Sc showed that these scales constitute a trait family. Trait patterns clearly differentiate Hy from Hs. The Si scale was a composite comprising 2 independent groups of traits and hence, for maximal effectiveness, should be separated into 2 subscales. Uniformity of signs within syndromes indicated that these scales are more closely related to the common component of the syndrome than to the specific trait factors.—*Author abstract.*

6740. Korner, Ija N., Allison, Roger B., Jr., & Zwanziger, Max D. (U. Utah Coll. Medicine) Stimulus size and Rorschach responses. *J. Psychol.*, 1962, 54(2), 491-494.—A comparison of responses to Rorschach Cards I, III, and VI and 6' X 8' enlargements of these cards was made to determine the influences of size upon percepts. Both sets were administered to 38 Ss in a counterbalanced design. Total time and total number of words used in responding were significantly greater in the case of the enlarged cards. The remainder of the experimental and standard scoring categories failed to demonstrate a size difference.—*Author abstract.*

6741. Kumar, Pramod. (Ranchi, India) The Rorschach test in psychoneurotic and normal groups. *Indian J. Psychol.*, 1961, 36(4), 169-172.—The Rorschach test was administered in India to normal and psychoneurotic Ss, matched by age and sex, in an effort to discover whether the 2 groups might be differentiated on any scores derived by the Rapaport technique. Only the F+ score had a significant chi-square value for such differentiation.—*J. T. Cowles.*

6742. McCully, R. S. (Cornell U. Medical Coll.) Certain theoretical considerations in relation to borderline schizophrenia and the Rorschach. *J. proj. Tech.*, 1962, 26(4), 404-418.—Differences in the stimulus value of the psychiatric and Rorschach

examinations are an important variable in evaluating borderline cases. The author suggests use of a "process analysis" which focuses attention on what the individual is experiencing and how he is behaving at a given moment in time in relation to the whole situation. A case record is presented to illustrate the process.—*A. F. Greenwald.*

6743. Nymna, Lawrence. (New York U.) The relationship between the ability to perceive human movement response in the Barron Ink Blot test and the reaction to delay in word-naming and reaction time situations. *Dissert. Abstr.*, 1962, 22(11), 4085.—*Abstract.*

6744. Pflaum, John H. (Wayne State U.) Restricted figure drawing as a projective measure of personality. *J. soc. Psychol.*, 1962, 58(2), 283-287.—This study attempted to measure personality traits by the use of a projective drawing task of a structured nature. The test consists of a series of nouns which the S represents by drawing lines from one to another of a pattern of 25 dots. The Guilford-Zimmerman Temperament Survey was used as a criterion for the validity of the drawing task. The scoring categories of the drawing task were Symmetry, Perspective, Motion, and Inadequacy. A high Symmetry score reflects an "extraverted" personality. "Introversion" was characterized by use of Perspective. A high Motion score related to impulsiveness. Inadequate drawings were a sign of hostility. The results partially justify the thesis that this drawing task relates to personality and that it merits further consideration.—*Author abstract.*

6745. Quirk, D. A., Quarrington, M., Neiger, S., & Slemmon, A. G. (Ontario Hosp., Toronto) The performance of acute psychotic patients on the Index of Pathological Thinking and on selected signs of idiosyncrasy on the Rorschach. *J. Proj. Tech.*, 1962, 26(4), 431-441.—In addition to the Index of Pathological Thinking in the Rorschach which distinguished between psychotic and nonpsychotic groups, several additional Rorschach signs were found which occurred with relatively higher frequency in the records of acute psychotics. A 10-item sign list was able to identify correctly approximately $\frac{1}{2}$ of the acute psychotic group.—*A. F. Greenwald.*

6746. Ramer, John Carl. (U. Washington) The Rorschach barrier score and social behavior. *Dissert. Abstr.*, 1962, 22(11), 4086.—*Abstract.*

6747. Rosenthal, M. (Boston U. School Medicine) Some behavior correlates of the Rorschach experience-balance. *J. proj. Tech.*, 1962, 26(4), 442-446.—In an attempt to validate the psychological significance of the experience balance, the performance of movement-predominant and color-predominant Ss on a Match Stick test was compared. The M group showed significantly more deliberateness and caution in its approach while the C group was characterized by significantly more motor activity and less response delay.—*A. F. Greenwald.*

6748. Stein, H. (New Jersey Diagnostic Cent., Menlo Park) An analysis of two components entering into Rorschach reliability values. *J. proj. Tech.*, 1962, 26(4), 474-477.—Results tend to suggest that the stimulus values of the blot are less important than inner determinants in the development of the individual's response pattern on the Rorschach.—*A. F. Greenwald.*

6749. Turner, G. C., & Coleman, J. C. (U. California, Los Angeles) Examiner influence on Thematic Apperception Test responses. *J. proj. Tech.*, 1962, 26(4), 478-486.—Examiner variables which might influence the nature of TAT responses elicited from Ss were studied. Qualitative and not quantitative differences were noted in the material elicited, suggesting that some examiners have a greater facility for obtaining diagnostically meaningful data. 4 personality traits of the examiners were studied and found to bear no relationship, to the amount or type of TAT responses elicited.—*A. F. Greenwald.*

PERSONALITY DIAGNOSIS

6750. Bräutigam, Walter. (U. Heidelberg, Germany) "Organwahl"—"Organsprache"—"Organ-spezifität." ["Choice" of organ—Organ "language"—"Determination" of an organ.] *Prax. Psychother.*, 1962, 7(6), 229-252.—Summary of a colloquium and the following discussion on the significance of the organ or physiological system which the mentally ill "choose" as a symptom to "express" their disease. The comments, made at the 1962 Psychotherapy Week in Lindau, Germany, are a cross-section of the views of Germanic psychotherapists on the subject.—*W. Swartley.*

6751. Brickenkamp, Rolf. Einige theoretische Grundzüge und praktische Methoden der Zuverlässigkeitsschätzung psychodiagnostischer Verfahren. [Some theoretical characteristics and practical methods of reliability estimation of psychodiagnostic tests.] *Psychol. Rdsch.*, 1963, 14(1), 13-25.—Based on studies of Cronbach, Guilford, Gulliksen, and Thurstone the reliability coefficient, different methods of computation, and problems connected with these methods are discussed.—*W. J. Koppitz.*

6752. Bruhn, J. G. An operational approach to the sick-role concept. *Brit. J. med. Psychol.*, 1962, 35(4), 289-298.—Ss were 129 adult neurotics making their initial approach to a psychiatric clinic. Patients were interviewed and ratings were made of their conception of the sick role. "The findings showed that patients with more positive conceptions of their sick role have long successful therapies. The converse did not hold true. Patients' sick-role conceptions were shown to be influenced by their social-class positions. Higher-class patients were found to have more positive sick-role conceptions than lower-class patients."—*C. L. Winder.*

6753. De, Bimaleswar, & Giri, G. P. (Muzaffarpur, India) A study of the diagnostic validity of the Sentence Completion Test. *Indian J. Psychol.*, 1962, 37(2), 93-98.—J. M. Sacks' Sentence Completion Test (SCT) was translated into Hindi and administered to a group of 40 college students and to a group of 25 institutionalized orphans; all Ss were aged 18 or over. Sacks' clinical rating scheme was used for scoring the 20 completed sentences of each S. Significant chi-square values were found separately for each group of Ss for the distribution of "healthy," "unhealthy," and "neutral" responses within each of the 4 personality domains of the test. There was a preponderance of "healthy" responses in the college group. These results were interpreted as indicating, contrary to Symonds, that the SCT is not only descriptive but also evaluative. They also express caution concerning the subjectivity of scoring and note

the greater potency of certain sentences to evoke "unhealthy" responses.—J. T. Cowles.

6754. Exner, J. E., Jr. (Bowling Green State U.) A comparison of the human figure drawings of psychoneurotics, character disturbances, normals, and subjects experiencing experimentally-induced fear. *J. proj. Tech.*, 1962, 26(4), 392-397.—The results of a comparison of figure drawings done by each of these groups tend to indicate that global ratings of figure drawings are more useful and effective diagnostically than any single sign approach.—A. F. Greenwald.

6755. Fernald, Lloyd Dodge, Jr. (Cornell U.) Client distortion of psychological test data in the test-interpretation interview. *Dissert. Abstr.*, 1962, 22(7), 2457.—Abstract.

6756. Kiener, Franz. Hand, Gebärde und Charakter. [Hand, gesture and personality.] Munich, Germany: Reinhardt, 1962. 364 p. DM 24.—The anatomy and the movements of the hand are interpreted from a traditional characterological point of view.—J. C. Brengelmann.

6757. Kiresuk, Thomas Jack. (U. Minnesota) The effect of test sophistication on the diagnostic validity of the Minnesota Multiphasic Personality Inventory and the Rorschach with paranoid schizophrenics. *Dissert. Abstr.*, 1962, 22(8), 2875.—Abstract.

6758. Kirk, Samuel A., & Bateman, Barbara. (U. Illinois) Diagnosis and remediation of learning disabilities. *Except. Children*, 1962, 29(2), 73-78.—"The current research reported here has dealt with a psychoeducational system of diagnosing those learning disabilities in children which result from a possible cortical dysfunction and/or emotional disturbance."—J. Z. Elias.

6759. Knehr, Charles A. (Cornell U. Medical Cent.) Factor analyses of schizophrenic and organic test data. *J. Psychol.*, 1962, 54(2), 467-471.—Similar factor patterns were observed for schizophrenics and organics on the same battery of tests, suggesting that cognitive organization is not different between the patient groups. The data provide a further basis for the previous contention that to discriminate organicity as a factor in observed impairment, tests independent of g are superior.—Author abstract.

6760. Kumar, Pramod. (Ranchi, India) The Rorschach test in depressive and normal groups. *Indian J. Psychol.*, 1962, 37(2), 89-92.—This is a repetition of the author's previously reported trial of the Rorschach test for differentiation of mental patient from normal Ss (see 37: 6741), except that the patients in the present study were 37 depressive cases, and the normals were a group of 37 Ss matched with the patients in age and sex. Of 19 (Rapoport) types of score, 4 differentiated the 2 groups with chi-square values at the .001 level, and 5 other types of score yielded chi-square values at the .01 level of significance.—J. T. Cowles.

6761. Lorr, Maurice. (Catholic U., Washington, D. C.) Measurement of the major psychotic syndromes. *Ann. N. Y. Acad. Sci.*, 1962, 93, 851-856.—Development of the Inpatient Multidimensional Psychiatric Scale (IMPS) is described. 10 syndromes have been derived including excitement, hos-

tile belligerence, paranoid projection, grandiose expansiveness, perceptual distortion, anxious intropunitiveness, retardation and apathy, disorientation, motor disturbance, and conceptual disorganization. Each of these is described. High interrater reliability, inter-scale consistency, and moderate 6-week retest reliability are reported.—B. S. Aaronson.

6762. Marks, P. A., & Seeman, W. (Kansas U. Medical Cent.) On the Barnum effect. *Psychol. Rec.*, 1962, 12, 203-208.—An attempt to refine its meaning by restricting the concept to diagnostic test-inferences where descriptions are so gross or trivial that the test is really superfluous for description. In addition, the intent of the clinician should not be part of the criterion nor should flattering statements. A procedure is suggested for identifying the effect when it occurs.—R. J. Seidel.

6763. Neiger, S., Slemmon, A. G., & Quirk, D. A. (Toronto Psychiatric Hosp.) The performance of "chronic schizophrenic" patients on Piotrowski's Rorschach sign list for organic CNS pathology. *J. proj. Tech.*, 1962, 26(4), 419-428.—"It was observed that, although the chronic schizophrenics tended to score slightly lower on the scale than the epileptics, about half of the schizophrenics obtained scores in the 'organic' range. This finding tends to contradict previous findings which reported a low false positive rate for the Piotrowski sign list." The authors suggest that regression is the process measured by Piotrowski's scale, and that it should be used with caution in predicting brain damage in a psychiatric population.—A. F. Greenwald.

6764. Phillips, Alan Richard. (Louisiana State U.) The dimension of masculinity-femininity as related to psychopathological groups. *Dissert. Abstr.*, 1962, 22(9), 3268.—Abstract.

6765. Schaie, K. W. (U. Nebraska) The performance of mentally defective children on the Color Pyramid Test. *J. proj. Tech.*, 1962, 26(4), 447-454.—It is posited that the Color Pyramid Test may be useful in differentiating between defective and normal Ss. An interpretation of some of the emotional differences noted between the 2 groups is also offered.—A. F. Greenwald.

6766. Tauber, Lewis Earlen. (Purdue U.) Time concern and "time complexes" among normals, neurotics, and psychotics with possible applications to psychotherapy. *Dissert. Abstr.*, 1962, 22(7), 2470.—Abstract.

6767. Tuckman, Jacob, & Kleiner, Robert J. (Philadelphia Dept. Public Health) Discrepancy between aspiration and achievement as a predictor of schizophrenia. *Behav. Sci.*, 1962, 7(4), 443-447.—A discussion of the existing measures of social class, occupation, and education as measures of ordering groups with respect to schizophrenic. A discrepancy Index based upon the discrepancy between aspiration and achievement is proposed as a more useful measure. Data is presented regarding the discrepancy between education and occupation as a predictor of schizophrenia although other types of discrepancies are noted as potentially involved in any overall measure.—J. Arbib.

6768. Uherik, A. (Slovenskej Akad. Vied, Bratislava, Czechoslovakia) Možnosti využitia metodiky KGR v diagnostickej praxi. [The possibilities of

using the method of galvanic skin reflex in diagnostic practice.] *Psychol. Stud., Bratislava*, 1961, 3, 157-194.—Descriptions of various pathological patterns of galvanic skin reactivity in psychotic patients with differing diagnoses. The absence of GSR as one of the components of the orientation reflex indicates pathological changes in the connective function of the cerebral cortex. Derangement of the connective function in the sphere of the first signal system is shown in cases where no reactions on sound stimuli occurred, a derangement on the level of 2nd signal system in cases where no reactions on verbal stimuli occurred. (Russian & English summaries)—*V. Břicháček*.

6769. Zucker, Luise J. (Postgraduate Cent. Psychotherapy, NYC) **Evaluating psychopathology of the self.** *Ann. N. Y. Acad. Sci.*, 1962, 96(3), 844-852.—Hazy, fluid ego boundaries are found with psychosis and especially schizophrenia. Projective tests may be used to measure strength of ego boundaries. The author stresses the Rorschach, the Mosaics, and the Figure Drawings. Criteria for ego weakness include fusion of different realms of cognitive experience, the tendency to multiple identifications, fluctuating body image, and extension of the ego field into other fields. Each criterion is illustrated. Good ego boundaries suggest good prognosis in schizophrenia. The relation of ego boundaries to prognosis is suggested.—*B. S. Aaronson*.

PERSONALITY ADJUSTMENT

6770. Dachowski, Marjorie McCormick. (U. Illinois) **Inconsistency as measured by direct, indirect and projective tests and its relationship to general neuroticism.** *Dissert. Abstr.*, 1962, 22(10), 3740.—*Abstract*.

6771. Gillespie, James Francis. (U. Pittsburgh) **Aggression in relation to frustration, attack, and inhibition.** *Dissert. Abstr.*, 1962, 22(11), 4080-4081.—*Abstract*.

6772. Henrichs, Theodore Fred. (U. North Carolina) **The effect of sensory reduction and personality information on self-concept and personal adjustment.** *Dissert. Abstr.*, 1962, 22(8), 2874-2875.—*Abstract*.

6773. Jensen, Arthur R. **Extraversion neuroticism and serial learning.** *Acta psychol., Amsterdam*, 1962, 20(2), 69-77.—130 university students scoring either high or low on the neuroticism and extraversion scales of the Maudsley Personality Inventory were compared on serial learning tasks paced at different speeds for difficulty. A significant relation between difficulty and neuroticism was found, although for the easier task high and low N's did not differ appreciably. The difficult task hindered the high N but not the low N group. Extraversion showed no significant relation with the learning variables. No systematic differences were found between the shapes of the serial-position curves of any of the groups.—*G. Rubin-Rabson*.

6774. Madigan, Francis C. (Xavier U., Philippines) **Role satisfactions and length of life in a closed population.** *Amer. J. Sociol.*, 1962, 67(6), 640-649.—In a comparative study of an order of Roman Catholic priests and white American males of the general population it was found that, in spite of high life stresses, priests enjoyed a more favorable

mortality experience. This suggests that high role satisfactions, as found among priests, may be related to this favorable mortality experience and it underlines the need for projective, quantitative research on this problem.—*R. M. Frumkin*.

6775. Nuttin, Joseph. **Psychoanalysis and personality: A dynamic theory of normal personality.** (3rd ed.) (Trans. by G. Lamb) New York: New American Library, 1962. 335 p. \$.75 (paper).—Originally published in 1953, this revised edition is now published as one of a series of paperbacks comprising a "treasury of Catholic thought for the modern reader."—*C. T. Morgan*.

6776. Thorne, Gaylord LeRoy. (U. Washington) **Conforming behavior as related to birth order, anxiety, and rejection.** *Dissert. Abstr.*, 1962, 22(9), 3280.—*Abstract*.

6777. Weinberger, Gerald. (Stanford U.) **Manifestations of conscience development as a function of experimenter permissiveness.** *Dissert. Abstr.*, 1962, 22(10), 3743.—*Abstract*.

Anxiety

6778. Bogen, Iver. (U. Denver) **Some operational definitions of intolerance of ambiguity and their relationship to adaptation and anxiety.** *Dissert. Abstr.*, 1962, 22(10), 3738.—*Abstract*.

6779. Cattell, Raymond, B. (U. Illinois) **Advances in the measurement of neuroticism and anxiety, in a conceptual framework of unitary-trait theory.** *Ann. N. Y. Acad. Sci.*, 1962, 93, 815-839.—The role of factor analysis is explicated via the concept of anxiety. The sources of anxiety are noted. Bound and unbound anxiety, trait and state concepts are compared. Effort stress differentiates from anxiety in its relationship to reality. A simple additive model fits the data and applies across contexts. Factor traits are dynamic concepts. The efficacy of factor scales in diagnosis is stressed as well as their provision of richer understanding of conditions such as sociopathy and neuroticism. Batteries give better measurement than single scales. Factor analysis gives definition to clinical concepts. (24 ref.)—*B. S. Aaronson*.

6780. Diamant, J. (Psychiatrická klinika KU, Praha) **K otázce navozování a zjišťování úzkosti.** [On the question of evoking and determining anxiety.] *Psychol. Stud., Bratislava*, 1961, 3, 211-226.—A review of methodological problems of experimental research on how anxiety influences human behavior. Special regard is given to the diagnosis and psychotherapy of psychiatric patients and in elaborating the fundamental principles of mental hygiene. (Russian & English summaries)—*V. Břicháček*.

6781. Funk, Melvin Frank. (U. Illinois) **Moral judgments and neurosis.** *Dissert. Abstr.*, 1962, 22(10), 3740-3741.—*Abstract*.

6782. Scheier, Ivan H. (Inst. Personality & Ability Testing, Champaign, Ill.) **Experimental results to date from the standpoint of the clinician.** *Ann. N. Y. Acad. Sci.*, 1962, 93, 840-850.—A follow-up to Cattell's paper on neuroticism and anxiety (see 37: 6779). The study of anxiety lacks "coordination, communication, and systematic interrelation of existing information." The way in which tests are built to capture a clinical concept is summarized. Anxiety

is only one of many personality variables. The state and the trait of anxiety is not identical. Anxiety norms are shown by diagnosis and occupation. Anxiety varies among nations with wellbeing. It has a U-shaped distribution with age and is lower in males, hypnotizable Ss, and volunteers for experiments. Extremes of anxiety impair learning and it may be lessened by moderate environmental challenge or psychotherapy. Physiological correlates are noted. (19 ref.)—*B. S. Aaronson.*

Defenses

6783. Breger, Louis. (Ohio State U.) **Conformity and the expression of hostility.** *Dissert. Abstr.*, 1962, 22(10), 3738-3739.—*Abstract.*

6784. Fuchs, Rainer. (Kiel, Diesterwegstr. 20, Germany) **Schmerz als signal für die Bedrohtheit von Leib und Leben.** [Pain as a threat signal in case of danger to life and limb.] *Z. exp. angew. Psychol.*, 1962, 9(3), 361-396.—A pain expectation affect was aroused in 16 Ss by Pavlovian conditioning. Interpretations of a series of unstructured pictures were compared before and after conditioning. A significant increase in responses expressing emotional concern with destruction and physical threat was observed in the postconditioning reports. Within the framework of an organized system of affective reactions pain is interpreted as a signal that the integrity of the body is in danger.—*W. J. Koppius.*

6785. Glass, David C., Horwitz, Murray; Firestone, Ira, & Grinker, Joel. (Research Cent. Human Relations, New York U.) **Birth order and reactions to frustration.** *J. abnorm. soc. Psychol.*, 1963, 66(2), 192-194.—A reanalysis of an experiment on the relation between frustration and aggression, employing 108 male undergraduates from New York University. The findings indicate that later born Ss react with greater annoyance to a frustrating agent than 1st born Ss. These results appear to contradict those reported in a previous study which found that 1st born males from Yale University react more strongly than later born males to frustrating acts by others. This discrepancy between New York and Yale college students in the domain of hostile behavior appears to parallel a similar inconsistency in the domain of affiliative behavior as reported in 2 recent studies. We suggest the consideration of sociocultural factors in any effort to interpret these differences, since we regard birth order, like birthplace, etc., as an "ecological" variable rather than a psychological one.—*Journal abstract.*

6786. Klein, G. S., Gardner, R. W., & Schlesinger, H. J. **Tolerance for unrealistic experiences: A study of the generality of cognitive control.** *Brit. J. Psychol.*, 1962, 53, 41-55.—This was previously abstracted (see 36: 5HL41G), but authorship in the abstract was incorrect.—*Editor.*

6787. Moulton, Robert W., & McNeil, Elton B. (U. Michigan) **The relationship of the socialization process to the handling of aggression in psychiatric patients.** *Pap. Mich. Acad. Sci. Arts Lett.*, 1957, 42, 289-297.—Data from "a continuing investigation of the relationship of the socialization process to the handling of aggression in psychiatric situations" have been obtained on a sample of male psychiatric patients and their mothers. Trends in the

data suggest that a greater proportion of the mothers of Ins (sons who turn their aggressive impulses inward on themselves) were separated from their male child before he was 2 years old than of the Outs (sons who characteristically expressed their aggression toward others). "Our analysis has focused on the internal experience of guilt and on shifts in the level of aspiration under conditions of success and failure."—*S. J. Lachman.*

6788. Waxenberg, Sheldon E., Dickes, Robert, & Gottesfeld, Harry. (Memorial Hosp. Cancer, NYC) **The Poetzl phenomenon re-examined experimentally.** *J. nerv. ment. Dis.*, 1962, 135(5), 387-398.—Poetzl believed that unreported portions of tachistoscopically-presented scenes were not observed because they were connected with repressed conflicting associations. The present experiment was designed to test such a hypothesis. Results did not lend support to it.—*N. H. Pronko.*

PSYCHOANALYTIC THEORY

6789. Bitter, Wilhelm. **Krisis und Zukunft der Frau.** [Crisis and future of woman.] Stuttgart, Germany: Ernst Klett, 1962. 314 p.—In this 10th report of sessions of the Stuttgart association "Arzt und Seelsorger" [Physician and Churchman], 17 papers and 3 discussions of the meetings in September 1961 and February-March 1962 are collected. Experts examine the consequences of the changing role of woman from the aspects of psychotherapy, medicine, sociology, education, and religion.—*E. Katz.*

6790. de Toledo, Luisa G. de Alvarez. **Psicoanálisis de la comunicación verbal.** [Psychoanalysis of verbal communication.] *Acta psiquiat. psicol. Argent.*, 1962, 8(1), 16-24.—The psychoanalytic interpretation of oral activity points to an unconscious identification of such acts with concrete oral, anal, urethral, and genital acts. The voice and spoken or heard words take on the unconscious value of these objects: milk, excrement, children, etc. Either the person listening or the one listened to are objects of the activity. By this analysis of verbal communication, the patient can be brought to the most primitive preverbal fantasies, in which even intrauterine fantasies can be activated.—*W. W. Meissner.*

6791. Feldman, S. S. **Blushing, fear of blushing, and shame.** *J. Amer. Psychoanal. Ass.*, 1962, 10(2), 368-385.—The desire to be the focus of attention is the key drive in blushers. Imposed inhibition of heterosexual drives is responded to in male blushers by assuming a feminine role, which also has to be repressed; the demand to be ashamed is then experienced. Females blush in desiring to have a male organ on the female body and not give up femininity. Female blushers are ashamed when they want attention as females. In therapy the patient establishes a working cooperation between the side of the ego turned toward the id and the side in contact with external reality.—*D. Prager.*

6792. Greenson, R. R. **On enthusiasm.** *J. Amer. Psychoanal. Ass.*, 1962, 10(1), 3-21.—Enthusiasm is differentiated from other varieties of elation. Several types of enthusiasm are distinguished and described. An attempt is made to formulate some of the meta-psychological elements making for the phenomenon of enthusiasm.—*D. Prager.*

6793. Heimann, Paula. *Bemerkungen zur analen Phase*. [Remarks on the anal phase.] *Psyche, Stuttgart*, 1962, 16(7), 420-439.—Narcissism is not simply the earliest libidinal position nor a quasi-physiological condition, but an active orienting attitude (toward experiences) that stems from innate, primordial ego capacities. Anal experiencing is the life historical prototype of creative ego achievements. For the first time an individual experiences his creative ability to obey an urge and at the same time learns to master its fulfillment outside of a dialogue with a partner who shares responsibility. Quite understandably such anal conflicts often reveal themselves as difficulties in writing.—E. W. Eng.

6794. Henry, George W. (Cornell U. Medical School, NYC) *Freud's pathography and psychoanalysis*. *Ann. N. Y. Acad. Sci.*, 1962, 96(3), 823-830.—Freud's views and concerns are traced to early childhood experiences, especially to the primal scene. Feelings about being Jewish and about his family's stability also determined his scientific activities. He suffered from neurosthenia, constipation, anxiety, depression, and migraine. He also had phobic reactions to high places, open spaces, traveling, and dying. His sexual problems and responses to aging are reviewed. The dynamics behind Freud's work and life style are discussed. His success and the subsequent failings of the psychoanalytic movement result from his neurosis and sexual problems.—B. S. Aaronson.

6795. Jung, Carl G. *Symbols of transformation: An analysis of the prelude to a case of schizophrenia*. (Trans. by R. F. C. Hull) New York: Harper (Torchbook), 1962. 2 vols.: xxix, 1-273, \$2.25; ix, 274-557, \$2.25.—A translation of the 4th Swiss edition of *Symbole der Wandlung*. The original version was published in 1912 at the time when Jung broke with Freud. It contains Jung's views on myths and symbols, an anamnesis of the Miller fantasies, and discussions of the libido concept and mother and hero symbols. (31-p. bibliogr.)—T. F. Naumann.

6796. Keiser, S. *Disturbance of ego functions of speech and abstract thinking*. *J. Amer. Psychoanal. Ass.*, 1962, 10(1), 50-73.—Disconnected speech and disturbances in abstract thinking may serve defensive needs and may be rooted in the fantasy of a fused mother-child single body image. There is need to deny separation from mother, to deny the femaleness of the mother, and to deny the nakedness of the over-exhibitionistic psychotic or borderline mother. Failure to incorporate, to introject, and to identify with the mother damages the ego functions of speech and thought processes as they involve abstract thinking.—D. Prager.

6797. Kestenberg, Jean. *A propos de la relation érotomaniaque*. [The erotomanic relationship.] *Rev. Franc. Psychanal.*, 1962, 26(5), 533-604.—This can be defined as a 1-sided love relationship in which the invested person does indeed exist but according to the patient's needs and defense mechanisms. It involves a function of protection through a compromise between narcissistic and objectal libido. The relationship is a move toward repersonalization and reassurance of self-integrity.—G. Rubin-Rabson.

6798. Loch, Wolfgang. *Psychoanalyse und Kausalitätsprinzip*. [Psychoanalysis and causality principle.] *Psyche, Stuttgart*, 1962, 16(7), 401-419.

—Psychoanalysis as a research method is based on the causality principle. But the determination of psychic content is circular and multicausal, not linear and monocausal. Further, causal-genetic reductive determination of behavior, as well as prediction, is limited by the fact that both psychic energy and structure are simultaneously involved in object relations. The micropsychological realm requires Bohr's principle of the complementarity of indeterministic spacetime determinations and statements of deterministic functions.—E. W. Eng.

6799. Loewald, Hans W. (New Haven) *Internalization, separation, mourning, and the super-ego*. *Psychoanal. Quart.*, 1962, 31(4), 483-504.—"The formation of the super-ego . . . is considered in its relation to the phenomena of separation and mourning. Separation is described in its aspect as the occasion for processes of internalization, especially as it is related to mourning. The work of mourning is not confined to a gradual relinquishment of the lost object but also encompasses processes of internalizing elements of the relationship with the object to be relinquished. . . . The concept of degrees of internalization is advanced. This implies shifting distances of internalized 'material' from the ego core and shifting distances within the ego-superego system, as well as transformations in the character of the introjects according to the respective degrees of internalization."—J. Z. Elias.

6800. Neumann, Erich. *Amor and Psyche: The psychic development of the feminine*. A commentary on the tale by Apuleius. (Trans. by Ralph Manheim) New York: Harper & Row (Torchbook), 1962. 181 p. \$1.25 (paper).—The mythological tale of Eros and Psyche from the *Metamorphoses* or *The Golden Ass* of Lucius Apuleius is first presented from the translation of H. E. Butler. Neumann then presents a detailed psychological interpretation of the Latin story according to Jung's basic principles. The initial conflict of Aphrodite and Psyche, the latter's death marriage with Eros, her rejection of him on the advice of her man-hating sisters, the transformation of her love into an active womanhood seeking to be reunited with Eros, her subsequent trials and sacrifices, her overpowering by sleep as a result of her curiosity, and her eventual reawakening by Eros to become his Olympian goddess-wife—these are primordial elements in the development of the feminine and, in fact, of all humanity, and represent "the love mysticism of all times." Further remarks concern the relation of this myth to religious beliefs and practices, to other folk tales, and to probable sources for Apuleius' particular version of this document of feminine psychology.—J. T. Cowles.

6801. Reik, Theodore. *Ritual: Four psychoanalytic studies*. (Trans. by D. Bryan) New York: Grove (Evergreen), 1962. 367 p. \$2.45 (paper).—A paperback edition of a book originally published in 1946, with a preface by Sigmund Freud.

6802. Rola, Edgardo H., & Rolla, Josefina M. de. *Esquema de la percepción de límites*. [Schema of the perception of boundaries.] *Acta psiquiat. psicol. Argent.*, 1962, 8(1), 7-15.—Effective functioning of sensory systems is paralleled by a lessening of anxiety. When a defect of distance perception facilitates projective identification and when distance itself is minimized, the ego supplements defective recognition

by use of proximal receptors of taste, touch, and kinesthetic sense. Basically hexagonal schemata signifying ego-environment interaction in terms of the mediating function of the 6 sensory modalities (including kinesthetic) are employed to depict the following states: prenatal, primary schizophrenia, depressive state, mania, hypomania, neurotic depression, melancholia, autism, social psychopath, acting-out personality, and advanced psychopathic psychosis. This permits conceptualization of personality structure in terms of the permanent interaction of body, mind, and space.—*W. W. Meissner.*

6803. **Schmidl, Fritz.** (Seattle, Wash.) **Psychoanalysis and history.** *Psychoanal. Quart.*, 1962, 31(4), 532-548.—The relationship between the 2 disciplines is examined, and examples are given of psychoanalytic studies of figures in history. It is concluded that "the application of psychoanalysis to problems of history has been casual and often unsatisfactory. The main reason for this is that psychoanalysis requires the cooperation of a living person. . . . Though, basically, this is an insurmountable difficulty, some valuable results could be achieved if workers in the field of history would become familiar with certain typical gestalten known and understood by psychoanalysts for, often, they will find the same gestalten in historical material. In this way they could arrive at an understanding of unconscious motivation in history."—*J. Z. Elias.*

6804. **Tamarin, G. R.** **Die Rolle der personalen und transpersonalen Ich-Definitionen in der Psychopathologie der Identitätsstörungen.** [The role of personal and transpersonal ego definitions in the psychopathology of identity disturbances.] *Confin. psychiat., Basel*, 1962, 5(4), 196-232.—Identity disturbances are expressed by altered self-definitions of the ego and/or pathological redefinition of transpersonal belongingness. Changes in definition of the self occur as: change of one's name, splitting or multiplication of the personality or autoagnosia, delusional redefinition of one's social role, defective ego autonomy, and defective ego integrity. (7 clinical case illustrations).—*E. W. Eng.*

6805. **Wangh, M. (Ed.)** **Fruition of an idea: Fifty years of psychoanalysis in New York.** New York: International Universities Press, 1962. 124 p. \$3.00.—A series of brief articles commemorating the 50th anniversary of the New York Psychoanalytic Society and the 30th anniversary of the New York Psychoanalytic Institute. Contributors include Samuel Atkin, B. D. Lewin, R. M. Loewenstein, V. H. Rosen, Heinz Hartmann, Leo Rangell, L. S. Kubie, J. A. Arlow, and B. E. Moore.—*D. Prager.*

6806. **Wells, Harry Kohlsaat.** **Sigmund Freud: A Pavlovian critique.** New York: International, 1962. 252 p. \$1.65 (paper).—A paper edition of the book originally published in 1961.

6807. **Zilboorg, Gregory.** **Psychoanalysis and religion.** New York: Farrar, Straus & Cudahy, 1962. xi, 243 p. \$4.50.—Edited by Margaret Stone Zilboorg, these writings are taken from previously published work on psychoanalysis, with the exception of 1 previously unpublished chapter. Chapters are: "The Fundamental Conflict with Psychoanalysis," "Psyche, Soul, and Religion," "Psychoanalysis and Religion," "Psychiatric Consideration of the Ascetic Ideal," "Sigmund Freud," "Scientific Psychopathol-

ogy and the Religious Issues," "Love in Freudian Psychoanalysis," "The Sense of Guilt," "Psychiatry's Sphere," and "Freud and Religion."—*G. K. Morlan.*

PHYSIOLOGICAL CORRELATES

6808. **Jenks, R. Stephen, & Deane, George E.** (Coll. Wooster) **Human heart rate responses during experimentally induced anxiety: A follow-up.** *J. exp. Psychol.*, 1963, 65(1), 109-112.—Base-level measurements of cardiac activity were made while Ss watched the sequence of Numbers 1 through 12 appear on a memory drum. Half of the Ss were then told to expect shock and half told to expect an extremely loud tone during Number 8, 9, or 10. Half of the shock Ss received 1 shock and half of the tone Ss received 1 tone. Other Ss received no noxious stimulus. All Ss showed an acceleration in rate during Numbers 1 through 6 and a deceleration during Numbers 8 through 10. The amplitude of the acceleration or deceleration was not dependent upon whether or not the noxious stimulus was received, but the shock-anticipation group showed greater acceleration than the tone group.—*Journal abstract.*

6809. **LeMunyan, Cobert Duane.** (U. Maryland) **The relationship between 17-OH-CS level and rated adjustment of school children.** *Dissert. Abstr.*, 1962, 22(10), 3734.—*Abstract.*

6810. **Malz, S., & Strauss, H.** (Central Hosp., Afula) **Hatismonet shel tekufat hamaabar.** [Menopausal syndrome.] *Dap. refuim*, 1962, 21, 464-488.—500 rural women in the menopause were examined in order to study the physiological and emotional conditions of their life. The average age of menopause was 49 years. The menopause did not limit general physical capacity. No psychological preparation or adequate treatment was found. Only a relatively small number of psychiatric deviations or involuntal psychoses were found to be directly connected with menopause. Mental reaction to the menopause seems to be a matter of personality and individual character. Some physiological observations connected with menopause are included. (English & French summaries).—*H. Ormian.*

THERAPY & GUIDANCE

6811. **Carkhuff, Robert R.** (U. Buffalo) **The MMPI: An outline for general clinical and counseling use.** Buffalo, N. Y.: Author, 1961. 53 p. \$2.00.—A succinct presentation of recent research findings for the 10 MMPI clinical scales plus the 3 validity scales. Data for the 13 scales are organized in outline form under the headings of item content, general scale meaning, clinical interpretations of high and low scores, and educational and vocational findings for both high and low scores. (87 ref.)—*W. L. Barnette, Jr.*

6812. **Group for the Advancement of Psychiatry, Committee on the College Student.** **The college experience: A focus for psychiatric research.** *GAP Rep.*, 1962, No. 52, 713-761.—Past psychiatric research in colleges is reviewed, and areas for further work are delineated. Colleges offer unique opportunities for studying late adolescent personality development, individual emotional illness, the interaction between student and institution, and the nature of educational processes. College psychiatrists' inter-

ests have widened from treatment of troubled individuals to increasing concern with normal student development in the institutional setting. To interdisciplinary research into conditions facilitating full realization of intellectual and personal potential, psychiatrists can contribute valuable clinical data, experience, and theoretical ideas. Practical difficulties in such research are considered. (181-item bibliogr.)—A. E. Wessman.

6813. Hoch, P. H., & Zubin, J. (Eds.) *The future of psychiatry: Proceedings of the 51st Annual Meeting of the American Psychopathological Association*, 1961. New York: Grune & Stratton, 1962. 271 p. \$8.75.—Part I contains 4 articles on the future of the neurophysiologic and neurochemical approaches. Part II contains 4 articles on the future of the psychological, social, and educational approaches. Part III contains 4 articles on the future of conceptual systems. Part IV contains 4 articles on the future of genetic, developmental, and organic approaches.—D. Prager.

MEDICAL THERAPIES

6814. Cantoni, Louis J., & Cantoni, Lucile. (Wayne State U.) *Focusing on the untreatable, emotionally disturbed.* *Med. Times*, 1961, 89(12), 1298-1301.—The role of the family physician in the treatment of patients with psychogenic disorders is discussed. For patients amenable to treatment, the physician can offer reassurance and referral to appropriate agencies. He can also provide sustaining counsel for many who are unable to recognize their chronic disturbance. Examples are given of patients considered not amenable to treatment. The family physician is cautioned to be firm with patients who do not participate in the helping process, or who are actually engaging in destructive behavior.—*Author abstract.*

6815. Newton, Arthur. (Louisiana State U.) *The effects of prefrontal lobotomy on performance of delayed response problems in human psychotic patients.* *Disseri. Abstr.*, 1962, 22(9), 3267-3268.—*Abstract.*

6816. Salesi, Eneas A., & Piedimonte, Rubén C. *El micorén en la electrochoque terapia con barbitúricos.* [Micoren in electroshock therapy with barbiturates.] *Acta psiquiat. psicol. Argent.*, 1962, 8(1), 48-49.—Experience with 322 applications of EST and 102 narcoanalytic sessions is synthesized. Use of micoren with barbiturates has the advantage of less risk, decreased irregularity and apnea, more uniform anesthesia, less sensation of dulling, better recovery of respiratory rhythm, elimination of cyanosis, and more rapid return to consciousness.—W. W. Meissner.

Drug Therapy

6817. Bayliss, S. G., & Gilbertson, Moyna P. (National Hosp. Nervous Disorders, London, England) *Controlled trials of chlorthalidoxepoxide in spastic children.* *Develpm. Med. child Neurol.*, 1962, 4(6), 597-601.—A double-blind cross-over trial on 41 spastic children indicated some improvement in the treated patients, "mainly due to improved sleep and behaviour," but "no significant effect when assessed solely on effect on the motor disability. No

serious side-effects were seen, but emotional upsets and drowsiness were troublesome."—T. E. Newland.

6818. Bobon, J., & Goffioul, F. *L'action antidepressive rapide du G35020, metabolite 3 de l'imipramine (tofranil): Etude pilote de 100 cas.* [The rapid anti-depressive action of G35020, metabolite 3 of imipramine (tofranil): A pilot study of 100 cases.] *Acta neurol. psychiat. Belg.*, 1962, 62(4), 359-373.—Long term patients were treated with G35020 during periods going from 50 to 250 days with mean daily dosage of 100 mg. taken orally. The overall therapeutic results are positive in a high percentage of the patients (76%). The action has been significantly favorable, mainly in psychasthenic patients. The psychotropic effect is potent and appears rapidly within the first 5 days in 47% of the patients. Side effects are minor and similar to those of imipramine (major inconvenience in 10%).—V. Samua.

6819. Delay, Jean, & Deniker, Pierre. *Methodes chimiotherapiques en psychiatrie: Les nouveaux medicaments psychotropes.* [Chemotherapeutic methods in psychiatry: The new psychotropic drugs.] Paris, France: Masson & Cie, 1961. 496 p. NF 65.—This volume constitutes a review of psychopharmacology and of the use of newer drugs in psychiatry and is intended for clinicians or laboratory workers in psychopharmacology. The principal types of drugs, neuroleptics, tranquilizers, and antidepressives are classified and defined according to their properties in the laboratory and in clinical practice. Topics covered include a history of drug therapy in psychiatry; drug classification and characterization of chlorpromazine, rauwolfia, and derivatives; neuroleptics; psychophysiologic characteristics of neuroleptics; tranquilizers; antidepressive chemotherapy; chemotherapeutic methodology in psychiatry; and the influence of chemotherapy upon modern psychiatry.—M. E. Jarvik.

6820. Downing, R. W., & Rickels, K. (U. Pennsylvania School Medicine) *Personality and attitudinal correlates of response to drug treatment in psychiatric outpatients: II. Preliminary investigation and implications for further research.* *J. Psychol.*, 1962, 54(2), 345-361.—In a preliminary study, psychiatric clinic patients were found to be more anxious and less self-accepting than patients of the medical clinic, and there was a trend toward greater compliance in the medical clinic group. This variable appeared to play a different role in patients from the 2 clinics. For psychiatric clinic patients, greater dependency was associated with higher anxiety and with lower self-acceptance, but dependency was not systematically related to our measure of compliance behavior. For medical clinic patients, dependency was not related to self-acceptance, but it was positively related to our measure of compliance behavior. The data would seem to indicate that dependency is directly expressed through compliant behavior when dependency is an acceptable element in one's self-concept, but that their direct expression is not present when one does not accept himself as a dependent individual.—*Author abstract.*

6821. Ey, Henri; Cor-Mordret, M., & Eppe, J.-P. (Hôpital Psychiatrique, Bonneval) *Sur le traitement des psychoses chroniques par la tri-fluopérazine.* [Treatment of chronic psychoses by

trifluoperazine.] *Evolut. psychiat.*, 1962, 27(3), 399-409.—Trifluoperazine, which is trifluoromethyl, was given to 30 chronic psychotics, with 45% good results. Some results are described in case histories. Moreover, the effects are charted in a table in which each patient is grouped under 1 of 6 psychotic states, and the effects are noted in 12 categories. (15-item bibliogr.)—*L. A. Ostlund.*

6822. Fisher, G. W., Murray, F., Walley, M. R., & Kiloh, L. G. (Prudhoe & Monkton Hosp., Northumberland, England) A controlled trial of imipramine in the treatment of nocturnal enuresis in mentally subnormal patients. *Amer. J. ment. Defic.*, 1963, 67(4), 536-538.—Imipramine in the dosage used in this study was ineffective in controlling enuresis in a group of subnormal patients of wide age range.—*V. S. Sexton.*

6823. Lambert, P. A. La thioproperazine: Ses propriétés pharmacodynamiques, sa place parmi les autres neuroleptiques en thérapeutique psychiatrique. [Thiopropazine: Its pharmacodynamic properties, its place among other neuroleptics in psychiatric therapy.] *Acta neurol. psychiat. Belg.*, 1962, 62(5), 441-456.—Thiopropazine was born out of the laboratory research aiming at an original product different from chlorpromazine in at least not having its secondary effects. With the mentally sick, and for the schizophrenic in particular it is incisively active with the weakest doses, but among the most delicate to handle because of neurological intolerances. The rest of the issue is devoted to 10 more articles reporting on the effects of thiopropazine in various mental diseases.—*V. Sanua.*

6824. Oswald, Ian; Berger, Ralph J., Jaramillo, R. A., Keddie, K. M. G., Olley, P. C., & Plunkett, G. G. (U. Edinburgh, Scotland) Melancholia and barbiturates: A controlled EEG, body and eye movement study of sleep. *Brit. J. Psychiat.*, 1963, 109(Whole No. 458), 66-78.—6 patients were compared with 6 controls, with patients showing more wakefulness. Heptabarbital was effective in reduction in paradoxical sleep—a reduction of dreaming.—*W. L. Wilkins.*

6825. Rickels, K., & Downing, R. W. (U. Pennsylvania School Medicine) Personality and attitudinal correlates of response to drug treatment in psychiatric out-patients: I. Theoretical orientation and measuring instruments to be employed. *J. Psychol.*, 1962, 54(2), 331-344.—The personality variables of anxiety, compliance, dependency, manifest hostility, and attitude toward the doctor and parental figures are important factors to be considered in the understanding of such treatment responses as dropping out, side reactions, and placebo effects in the out-patient drug therapy situation. A battery of tests to be used in measuring these factors as well as the rationale for selecting them, is described.—*Author abstract.*

6826. Rosa, Jorge J., Villanueva, Juan R. M., & Campioni, Edmundo L. Un nuevo neuropléjico no fenotiazínico: Su aplicación en el alcoholismo subagudo. 2-cloro, 9-dimetilamino-propiliden)-tio-xanteno. [A new non-phenothiazene neuroplexic agent: Application in subacute alcoholism. 2-chloro, 9-(dimethylamino-propylidene)-thioxanthene.] *Acta psiquiat. psicol. Argent.*, 1962, 8(1), 46-47.—Results

of treatment of 14 chronic cases are reported (age range 30-60 yr., duration of alcoholic habit 12-23 yr.). Dosage of 100-200 mg/day excluded agitation after 16 hr., and showed favorable effects on perceptual disturbances within 48 hr.—*W. W. Meissner.*

6827. Spencer, A. M. (Powick Hosp., Worcester, England) Permissive group therapy with lysergic acid diethylamide. *Brit. J. Psychiat.*, 1963, 109(Whole No. 458) 37-45.—10 female patients of poor prognosis met in group twice weekly for 16 months with a 9-5 LSD group session. Tailor's dummies, dressed, were used as bad parental surrogates in the meetings so doctor, nurse, and patients could act as good parental and sibling surrogates. Aggression toward the paternal dummy is described. 3 patients were considerably helped and 4 somewhat improved.—*W. L. Wilkins.*

Shock Therapy

6828. Özaydin, S. (U. Istanbul) La cause du coma au cours du choc insulinique: Etude basée sur les modifications du volume des liquides extracellulaires. [The cause of coma in the course of insulin shock: A study based on modifications of the volume of extracellular fluids.] *Encephale*, 1962, 51(4), 383-394.—Measures taken on 12 Ss indicate that coma or disturbances of consciousness during insulin shock treatment are due to intracellular hypoglycemia together with the flow of liquid to the extracellular spaces. This latter phenomenon is probably caused by the increase of albumin in the interstitial tissues. Certain substances, like adrenaline, intensify the infiltration of albumin during insulin shock. (42 ref.)—*W. W. Meissner.*

6829. Yvonneau, Michel. (Hôpital Psychiatrique, Bonneval) Placebo et electrochoc. [Placebo and electroshock.] *Evolut. psychiat.*, 1962, 27(3), 393-397.—The variety and methodology of placebos is enumerated briefly. However, pseudo-electroshock treatment is the main subject. The author reports a background of such studies. His own research consisted of telling patients ready to be given narcotics (nesdonal-atropine) that they would get an electric shock. Though no shock was given, the patients submitted to a mean of 3.25 pseudo-electroshock sessions. Out of 17 psychotics, there were 13 failures, 3 were helped, and 1 was cured. Out of 11 neurotics, there were 2 failures, 3 were helped, and 6 were cured. The author attributes the results to a parallelism between biopsychological mechanisms during electroshock and pseudo-electroshock.—*L. A. Ostlund.*

PSYCHOTHERAPY

6830. Aarons, Z. Alexander. (Walnut Creek, Calif.) Indications for analysis and problems of analyzability. *Psychoanal. Quart.*, 1962, 31(4), 514-531.—Estimation of the problems to be met with in an analysis and prediction as to the analyzability of the patient are discussed. "Although it is desirable to predetermine, and with some degree of probability, that the patient is analyzable, this may not be feasible in many instances."—*J. Z. Elias.*

6831. Atkinson, Stuart Emory. (U. Colorado) Social class, interpersonal role orientations, and conceptions regarding psychotherapy. *Dissert. Abstr.*, 1962, 22(9), 3264.—*Abstract.*

6832. Buhler, Charlotte. *Values in psychotherapy*. New York: Free Press Glencoe, 1962. xv, 251 p. \$5.25.—"Values permeate our development and personality to such a degree that they can never be left out of the picture." The book considers 2 problems: (a) "whether, why, and how the psychotherapist has to get involved with the value problems of his patients" and (b) "how the therapist's and the patient's self-development and self-understanding and the role that values play for them in human life must by necessity affect the process of therapy. . . . The basic theme of the book is a discussion of psychotherapy as value-discrimination, either by reduction of generalization or by 'new' seeing."—C. H. Miley.

6833. Cartwright, Desmond S., Kirtner, William L., & Fiske, Donald W. (U. Colorado) *Method factors in changes associated with psychotherapy*. *J. abnorm. soc. Psychol.*, 1963, 66(2), 164-175.—This study investigated the factorial structure of changes concomitant with client-centered therapy. Most of the variables were differences obtained by subtracting the pretherapy scores from the corresponding post-therapy scores of each of 93 clients. The 1st 4 factors seem to reflect: change in favorableness of client self-evaluation, change in adequacy ratings based on the TAT, therapist's perception of change, and change on Hs and Hy from the MMPI. The 5th factor was length of therapy. Of these orthogonal factors, the 1st 4 are seen as method factors, each being associated primarily with an observer-instrument combination. As measured, the changes associated with short psychotherapy cannot be adequately represented by a single global rating or by scores for personality traits defined either broadly or narrowly. (23 ref.)—*Journal abstract*.

6834. Dreyfus, Edward A. (U. Kansas) *Counseling and existentialism*. *J. counsel. Psychol.*, 1962, 9(2), 128-132.—A theoretical discussion of the similarities between existential psychotherapy and the client-centered or nondirective school, the view of man as a "continuously emerging being."—E. R. Oetting.

6835. Duffy, Vernon. *From beside the couch*. New York: Vantage, 1962. 44 p. \$2.00.—Written under a pseudonym, this is a collection of humorous statements made by patients in psychotherapy.—C. T. Morgan.

6836. Ekstein, Rudolf. *Special training problems in psychotherapeutic work with psychotic and borderline children*. *Amer. J. Orthopsychiat.*, 1962, 32(4), 569-583.—The 2 main differences between child psychotherapists and therapists who work with adults are: (a) the motivating forces which make for the choice, and (b) the specific problems in dealing with the child-parent unit. Special training problems in supervising child psychotherapists and especially those dealing with borderline or schizophrenic children have to do with rescue fantasies, countertransference potentials, and parent-hating syndromes. In the discussion, Lester Luborsky emphasizes the fact that motives contained in the therapist's counter-transference may be the very motives which sustain him through the treatment.—R. E. Perl.

6837. Enke, Helmut. (U. Freiburg, Breisgau, Germany) *Die Bedeutung des Körpersymptoms in der klinischen Psychotherapie*. [The significance of bodily symptoms in clinical psychotherapy.] *Prax. Psychother.*, 1962, 7(6), 263-267.—The author dis-

tinguishes between 3 types of mental patients with regard to the presence of physiological symptoms. He states that his patients have an average of 4 psychosomatic symptoms, including a "Leit-Symptom," or "leading symptom." A statistical survey of the symptoms of 273 patients is included. "Symptom confrontation," or confronting the patient with his physiological symptomatology, and the effect of the interpretation of symptoms to patients is discussed briefly.—W. Swartley.

6838. Frankl, V. E. *Die Heimholung der Psychotherapie in die Medizin*. [Bringing psychotherapy back to medicine.] *Acta psychother. psychosom.*, Basel, 1962, 10(2), 99-110.—The doctor, not the technique is important. By its manner of administration, psychotherapy can be dehumanizing, more so than pharmacotherapy or shock treatment. A new neurosis has come into being—a pointlessness to life, an existential vacuum—requiring a new therapy. Psychotherapy must return to medicine, and its return will change both. For psychotherapy, demythologization will prove beneficial; for medicine, re-humanization.—G. Rubin-Rabson.

6839. Holzman, Mathilda Sara. (U. Washington) *The significance of the value systems of patient and therapist for the outcome of psychotherapy*. *Dissert. Abstr.*, 1962, 22(11), 4073.—*Abstract*.

6840. Komor, Peter Paul. (Cornell U.) *A follow up study of "treated" and "untreated" children, from one to four years after termination of psychiatric clinic contact*. *Dissert. Abstr.*, 1962, 22(8), 2876.—*Abstract*.

6841. Meyer, V., & Gelder, M. G. (Maudsley Hosp., London, England) *Behaviour therapy and phobic disorders*. *Brit. J. Psychiat.*, 1963, 109 (Whole No. 458) 19-28.—5 cases of agoraphobia treated by the Wolpe techniques, averaging 80 therapy hours each, had varied success. 2 cases had abatement of symptoms, but 1 became somewhat worse.—W. L. Wilkins.

6842. Parker, Beulah. (U. California) *My language is me: Psychotherapy with a disturbed adolescent*. New York: Basic Books, 1962. viii, 391 p. \$8.50.—This is a conversational record of a therapeutic relationship between a Freudian oriented female psychiatrist and a preschizophrenic youth who was treated as an outpatient for 6½ years. The case material was reconstructed verbatim after each interview. Throughout, the dialogue is interspersed with the therapist's orientation and technique, as well as her feelings. These 230 hours of therapy illustrate the problem of achieving communication with a patient whose idiosyncratic language functions both for defense and for communication. Sequentially, the youth's autistic language provided contact, communication, understanding, and—eventually—change of behavior. The author's maxim is: "If you understand and appreciate my language, you must understand and appreciate me. My language is me."—L. A. Ostlund.

6843. Schachter, Frances F., Meyer, Lucile R., & Loomis, Earl A. *Childhood schizophrenia and mental retardation: Differential diagnosis before and after one year of psychotherapy*. *Amer. J. Orthopsychiat.*, 1962, 32(4), 584-595.—12 schizophrenic, 6 retarded, and 11 normal preschool boys all living at home with intact families were evaluated be-

fore and after a year of therapy (the normals did not receive therapy but were enrolled in a nursery school). Evaluation techniques comprise measures of behaviors in standardized play situations and psychological tests. After a year of psychotherapy the schizophrenic retarded groups improved; the retardates improved even more than the schizophrenics. In the discussion Hyman Spotnitz stresses the importance of attempting psychotherapy with mentally retarded children and suggests that mental retardation in childhood may turn out to be no more a therapeutic impasse than childhood schizophrenia.—*R. E. Perl.*

6844. Shapiro, Stewart B. (Western Psychological Cent., Sherman Oaks, Calif.) **Patient wisdom: An anthology of creative insights in psychotherapy.** *J. Psychol.*, 1962, 54(2), 285-291.—To explore the impact of "patient wisdom" on the therapist, it is first necessary to listen openly without analyzing, categorizing, or reconstructing. 21 "wise" statements were quoted from 10 patients of the writer. The meaning of wisdom, commonalities in the statements, and the essentials of therapeutic change were discussed. Wisdom involves a creative integration of values, nondefensive ego functions and mental soundness. Although highly personal and emotional, the quoted statements retain a kind of universality. One essential to therapeutic change is therapist receptivity to "patient wisdom."—*Author abstract.*

6845. Townsend, Alan H. (U. Michigan) **An empirical measure of ambiguity in the context of psychotherapy.** *Pap. Mich. Acad. Sci. Arts Lett.*, 1956, 41, 349-355.—5 male and 5 female undergraduate college students examined typescripts of sections of therapy interviews after being told that "the experimenter was interested in finding out how well one person could judge the behavior of another. . . . An attempt was made (1) to arrive at an empirical measure of ambiguity in the context of psychotherapy, and (2) to validate a previously established rating method of measurement of the variable. Two measures were employed, one using a series of nine questions and the other a forty-four-item Q-sort. The results show that direct measurement of the variable is possible and also suggest that the alternative method of measurement is valid."—*S. J. Lachman.*

6846. Watts, Alan W. **Psychotherapy East and West.** New York: New American Library, 1963. x, 160 p. \$.60 (paper).—A paperback edition of a book originally published in 1961.—*C. T. Morgan.*

Therapeutic Process

6847. Grooms, Robert Roy. (Pennsylvania State U.) **Extinction of generalized responses as a method of producing response decrement to the original stimulus: An experimental analogue of psychotherapy.** *Dissert. Abstr.*, 1962, 22(11), 4095.—*Abstract.*

6848. Hobbs, Nicholas. (George Peabody Coll.) **Sources of gain in psychotherapy.** *Amer. Psychologist*, 1962, 17(10), 741-747.—Insight is not a cause of change but a possible result of change. "It is not a source of therapeutic gain but one among a number of possible consequences of gain." 5 "major sources of gain, five kinds of experiences that are the well-springs of personality reorganization" are specified. Psychotherapy is a unique life situation designed to

maximize these sources of gain: (a) a sustaining experience of intimacy with another human without getting hurt; (b) divesting verbal and other symbols of their anxiety producing potential; (c) the transference relationship; (d) client opportunities to practice decision making, to learn to be responsible for himself, to develop an improved self-concept; and (e) insight which facilitates repression and symptom elimination, and involves cognitive structure modifications.—*S. J. Lachman.*

6849. Kaiser, Hellmuth. **Emergency: Seven dialogues reflecting the essence of psychotherapy in an extreme adventure.** *Psychiatry*, 1962, 25(2), 97-118.—Views of psychotherapy expressed through the use of dramatic scenes in the case of suicidal risk in a psychiatric colleague.—*H. M. Cohen.*

6850. Luquet, C.-J. **Réflexions sur le transfert homosexuel dans le cas particulier d'un homme analysé par une femme.** [Homosexual transference in the case of a man analyzed by a woman.] *Rev. Franc. Psychanal.* 1962, 26(5), 501-532.—The fact the analyst is female does not change the essential processes of the analysis, specifically, transference. How well transference is utilized, or how easily it is accomplished depends on the neurotic structure of the patient and the relative importance of the pathogenic imago. It is rather the countertransference which can hamper the evolution of cure because of the disturbance of variation and rhythm in transference chronology.—*G. Rubin-Rabson.*

6851. Munzer, Jean. (Columbia U.) **The effect of analytic therapy groups of the experimental introduction of special "warm-up" procedures during the first five sessions.** *Dissert. Abstr.*, 1962, 22(8), 2896-2897.—*Abstract.*

6852. Nelson, Marie Coleman. **Effect of paradigmatic techniques on the psychic economy of borderline patients.** *Psychiatry*, 1962, 25(2), 119-134.—A transcribed session illustrating paradigmatic psychotherapy and its effect on the borderline case. Theoretical background is presented and the advantage of this type of treatment emphasized.—*H. M. Cohen.*

Group Therapy

6853. Ernst, F. H. **Use of transactional analysis in prison therapy groups.** *Correct. Psychiat. J. soc. Ther.*, 1962, 8(3), 120-132.—A method of studying group therapy behavior in terms of stimulus-response phenomena. The behavior of each inmate-patient is handled by the therapist and the group as a response to a stimulus. There was improved attendance after the transactional analysis method was introduced.—*L. R. Witt.*

6854. Heigl, Franz. (Göttingen, Germany) **Ein prognostisch entscheidender Charakterzug bei verwahrlosten jugendlichen.** [A prognostically decisive character trait in neglected youth.] *Prax. Kinderpsychol. Kinderpsychiat.*, 1962, 11(6), 197-201.—In analytic group therapy the understanding and handling of the characteristic wish for revenge in neurotic wayward youth was found very important.—*E. Katz.*

6855. Wilson, Edouard L. (Federation Handicapped, NYC) **Group therapy experience with eight physically disabled homebound students in**

a prevocational project. *Except. Children*, 1962, 29 (4), 164-169.—"... the results gained show that group psychotherapy can be used as a valuable therapeutic tool in assisting high school homebound physically disabled boys and girls to face up to themselves and the world of work."—J. Z. Elias.

Special Therapies

6856. Daly, Dennis Charles. (St. Louis U.) *Psychodrama as a core technique in milieu therapy. Dissert. Abstr.*, 1962, 22(9), 3266.—*Abstract.*

6857. Eysenck, H. J. (U. London, England) *Behaviour therapy, extinction and relapse in neurosis. Brit. J. Psychiat.*, 1963, 109 (Whole No. 458) 12-18.—Neurotic disorders of a dysthymic sort should be distinguished from those where the patient's behavior is of a socially disapproved nature. For the 1st, extinction operates well and can be helped by reinforcement approaches; for the 2nd type of patient, relapse could be predicted when such approaches are used. Partial reinforcement, with aversion therapy, seems indicated for the 2nd variety of neurosis.—W. L. Wilkins.

6858. Gálfi, Béla. *A munkaterápia a pomázi munkaterápiás intézetben.* [Labor therapy in the Institute for Labor Therapy at Pomáz.] *Magyar pszichol. Szle.*, 1961, 18(2), 173-183.—A new program serving the rehabilitation of mentally sick patients is described. Within the overall framework of milieu therapy, labor therapy plays a very important role in reconstructing the disturbed dynamic stereotype. In a well structured work situation, mostly farming, patients receive an intensive experience of social interaction and integration, as well as monetary compensation for performed productive work.—E. Friedman.

6859. Garland, James A., Kolodny, Ralph L., & Waldfogel, Samuel. *Social group work as adjunctive treatment for the emotionally disturbed adolescent: The experience of a specialized group work department. Amer. J. Orthopsychiat.*, 1962, 32(4), 691-706.—2 cases are presented to illustrate the way in which social group work can be used effectively in conjunction with individual psychotherapy of disturbed adolescents in cases of severe character problems, including acting out, withdrawal, isolation because of physical handicap, and tenuous reality testing.—R. E. Perl.

6860. Horányi, Béla. *A gyógyító hallgatásról.* [Healing silence.] *Magyar pszichol. Szle.*, 1961, 18 (2), 153-156.—Most psychotherapies are based on the theory that once a feeling is created in an individual in connection with a life experience, this feeling never loses its potency in the shaping of the individual's actions and attitude toward the world in general and individuals in particular. Through speaking (psychotherapy), the disturbing and already submerged affect-conflicts could be brought to the surface and eliminated. It is felt that there is no need for this due to the fact that emotions are subject to inactivity atrophy in the same degree as any other function of the nervous system. To eliminate conflicts one needs to further the process of atrophication. This can be achieved by the "never-speak-about-it" method. The patient trains himself through a technique described by author, not even to think about his problems.—E. Friedman.

6861. Široký, H. (Psychiatrická léčebna, Opava, Czechoslovakia) *Diagnostické aspekty psychodramatu.* [Diagnostic aspects of psychodrama.] *Českoslov. Psychol.*, 1962, 6(2), 154-165.—A brief history of psychodrama and its use in Czechoslovakia. Diagnostic possibilities are demonstrated from the author's own material. Reconstruction of life situations and analysis of patient's behavior extends the diagnostic methods and is useful for clinical practice. (English & Russian summaries, 73 ref.)—V. Břicháček.

HYPNOSIS

6862. Abraham Henry H. L. *The suggestible personality: A psychological investigation of susceptibility to persuasion. Acta psychol., Amsterdam*, 1962, 20(2), 167-184.—To determine the relation between sensory and verbal susceptibility to suggestion and which tests might predict susceptibility to different types of persuasive communications, 101 students, age 17 to 42 years, were administered the Edwards Personal Preference Schedule, a heat test, an odor test, and a persuasibility test. From the findings emerges a syndrome of suggestible and non-suggestible personality. Persuasibility is not an isolated but a general trait, contributing to consistent individual differences in susceptibility to suggestion in diverse sensory and verbal areas of influence. Strength, specific nature of stimuli, setting, media of communication, cultural, and social factors remain to be investigated.—G. Rubin-Rabson.

6863. As, Arvid. (U. Oslo, Norway) *Hypnotizability as a function of nonhypnotic experiences. J. abnorm. soc. Psychol.*, 66(2), 142-150.—The relationship between various subjective experiences and susceptibility to hypnosis was studied in 2 samples of female college students, totalling 102. The subjective experiences were registered by the Experience Inventory, a questionnaire developed earlier for this purpose. Hypnotizability was determined by administering objective hypnotic scales individually. Correlations between hypnotizability and the total Experience Inventory score as well as a composite score of selected items were significant in both samples, but the latter failed in predicting hypnotizability better than the total score. Items of subjective experiences significantly related to hypnotizability in the total sample were analyzed in terms of the personality dimensions implied. (17 ref.)—*Journal abstract.*

6864. Barber, Theodore Xenophon, & Calverly, David Smith. (State Hosp., Medfield, Mass.) *"Hypnotic behavior" as a function of task motivation. J. Psychol.*, 1962, 54(2), 363-389.—4 experiments are presented assessing response to test-suggestions in a hypnotic group and in one or more control groups under varying levels of induced motivation. A conventional trance induction procedure was no more effective than brief instructions designed to produce personal involvement in a test-of-imagination situation in (a) facilitating response to suggestions of amnesia, "posthypnotic-like" behavior, body immobility, sensory hallucination, etc., and in (b) eliciting subjective reports that the suggested effects were experienced. The results suggest that many "hypnotic-like" phenomena can be elicited without the administration of a procedure traditionally termed a "trance induction" provided that Ss are motivated to perform well on the criterion tasks and disbeliefs con-

cerning the possibility of experiencing the phenomena have been minimized.—*Author Abstract.*

6865. Gibson, H. B. (U. London) **Furneaux's discussion of extraversion and neuroticism with regard to suggestibility: A criticism.** *Int. J. clin. exp. Hypn.*, 1962, 10(4), 281-287.—Hypotheses suggested by Furneaux (see 36: 41195F) are criticized on the grounds that his basic assumption that extraverts attend more closely in the interpersonal situation is unwarranted. It is maintained on the contrary that introverts are the less distractible and it is shown that the data published earlier by Furneaux and Gibson (see 36: 31167F) accord with a theoretical model derived from Spence. The results are also discussed in terms of an alternative interpretation. It is further contended that Furneaux's treatment of the data leads to other inconsistencies.—*C. S. Moss.*

6866. **Group for the Advancement of Psychiatry. Medical uses of hypnosis.** *GAP Symp.*, 1962, No. 8, 641-708.—Brief papers by M. Ralph Kaufman and Lewis R. Wolberg summarize the historical background and classical clinical uses of hypnosis. Harold Rosen discusses and illustrates technical modifications in trance induction and treatment techniques necessitated by various diagnostic and therapeutic considerations. Martin T. Orne discusses the problems of research in hypnosis, particularly the implicit demand characteristics of experiments; and from his research on the simulation of hypnosis he concludes that beside usual emphasis on increased motivation, role playing, and altered behavior, particular attention should be given to subjective experience, altered consciousness, and logical incongruities in the trance. The appendices contain official policy statements of the American Medical Association and American Psychiatric Association on the medical use of hypnosis and recommendations for adequate training programs.—*A. E. Wessman.*

6867. Hallaji, Ja'Far. **Hypnotherapeutic techniques in a central Asian community.** *Int. J. clin. exp. Hypn.*, 1962, 10(4), 271-274.—The semimonastic Sufi practitioners of Afganistan treat physical as well as psychosomatic disorders by a method which is reminiscent of Mesmerism, and they claim cures even for illnesses such as tuberculosis and cancer. A treatment session for 18 patients is described.—*C. S. Moss.*

6868. Raginsky, Bernard B. (376 Redfern Ave., Montreal 6, Quebec, Canada) **Sensory hypnoplasty with case illustrations.** *Int. J. clin. exp. Hypn.*, 1962, 10(4), 205-219.—Sensory hypnoplasty is a technique in hypnoanalysis in which the hypnotized patient models clay to which various sensory stimuli (e.g., temperature, texture, color, smell) have been added to stimulate basic primitive memories, associations, sensations, and conflicts. This allows the patient to give plastic expression to repressed and suppressed material which is then followed by verbalization of the conflicts. The therapeutic process is reputed to be greatly accelerated. This technique has been used in the successful treatment of diverse pathological conditions.—*C. S. Moss.*

6869. Reyher, Joseph. (Michigan State U.) **A paradigm for determining the clinical relevance of hypnotically induced psychopathology.** *Psychol. Bull.*, 1962, 59(4), 344-352.—4 principles, or criteria, are suggested for the hypnotic induction of psycho-

pathology: the induced process must not include cues as to how E expects the S to respond in any other respect; (b) the induced process must be response-producing, (c) some of the produced responses must fit the criteria for inclusion in some classification of psychopathology; and (c) some of the Ss must be asked by a co-experimenter, unknown to the E, to fake hypnosis in order to determine the demand characteristics of the research.—*W. J. Meyer.*

6870. Rose, J. T. (St. James' Hosp., Leeds, England) **The use of relevant life experiences as the basis for suggestive therapy.** *Int. J. clin. exp. Hypn.*, 1962, 10(4), 221-229.—A brief, directive method of hypnotherapy is described which combines limited insight therapy with hypnotic suggestions based on relevant life experiences of the patient. By integrating suggestions and experiences familiar to the patient, the former are more likely to have greater meaning to the patient and are therefore more effective.—*C. S. Moss.*

6871. Rosenhan, David, & London, Perry. (Educational Testing Service, Princeton) **Hypnosis in the unhypnotizable: A study in rote learning.** *J. exp. Psychol.*, 1963, 65(1), 30-34.—This study was concerned with the effects of hypnosis on the memorization of nonsense syllables. 32 undergraduates, 16 relatively susceptible and 16 relatively unsuspceptible, were individually presented 10 nonsense syllables on a memory drum under counterbalanced hypnotized and un hypnotized conditions. Findings demonstrated that hypnosis facilitates the performance of the relatively unsuspceptible Ss, and impairs the performance of the very susceptible ones. Hypnosis was thus seen as having potentially variable effects which interact with susceptibility and with the specific experimental measure which is used.—*Journal abstract.*

6872. Stachowiak, James Gregory. (U. Kansas) **Hypnosis, the principle of congruity, and attitude change.** *Dissert. Abstr.*, 1962, 22(11), 4107.—*Abstract.*

6873. Sutcliffe, J. P., & Jones, Jean. (U. Sydney, Australia) **Personal identity, multiple personality, and hypnosis.** *Int. J. clin. exp. Hypn.*, 1962, 10(4), 231-269.—The concept of multiple personality is critically examined in the light of its historical development. Various conceptions of multiple personality are considered: as a diagnostic fashion, as a product of shaping in therapy, as a product of hypnotic suggestion, as simulation, and as an extension of characteristics found in "normal" personalities. These considerations lead to the conclusion that the significant alterations of personality characterizing the syndromes are loss of self-reference memories, and confusions and delusions about particular identity in time and place. The parallels in multiple personality and hypnotic phenomena lead to the heuristic hypothesis that degrees of proneness to multiple personality are predictive of degrees of hypnotizability. (76 item bibliogr.)—*C. S. Moss.*

6874. Webb, Robert A. (Alabama State Hosp., Tuscaloosa) **Suggestibility and verbal conditioning.** *Int. J. clin. exp. Hypn.*, 1962, 10(4), 275-279.—Evidence is advanced that postural sway suggestibility is positively correlated with verbal conditioning. No S below 100 mm. of body sway showed any indication of conditioning. The lowest suggestibility group appeared to be counter-conditioning.—*C. S. Moss.*

DREAMS

6875. Bernstein, Isidor. Dreams and masturbation in an adolescent boy. *J. Amer. Psychoanal. Ass.*, 1962, 10(2), 289-302.—Clues regarding the form of masturbation and the content of masturbation fantasies were obtained from dreams. This assisted in analysis of method of control and discharge of tension in this boy. The element of motion, specifically riding, in the manifest dream content refers to masturbation. Such riding dreams are included in a group of typical dreams incompletely described by Freud.—D. Prager.

6876. Diamond, Edwin. The science of dreams. Garden City, N. Y.: Doubleday, 1962. 264 p. \$4.50.—This book includes discussions on the human use of dreams to maintain sanity, the influence of suggestions on future dreams, the relationship of sexuality and dreams, the role of dreaming in primitive societies, the topics of the dreams of both normals and schizophrenics, physiological correlates of sleep and dreaming, and the effects of sensory and sleep deprivation.—J. B. Thompson.

6877. Dittborn, Julio M. (U. Chile) Experimental recollection of dreams. *J. Psychol.*, 1963, 55(1), 39-41.—Reports of experiments where the author played the phrase "to awake while dreaming" during his sleep. This sentence was transmitted from a tape recorder specially adapted with a closed loop which permitted the phrase to be continuously played 6-7 times per minute. A meaningless phrase was played as control on some nights. S awoke on all experimental nights no matter which phrase was played. However, dreams were remembered only on those nights on which the meaningful phrase was played. Other facts observed were the following: a) after awakening on 2 different nights when the meaningful phrase was played, the text of it was heard completely distorted; and (b) the dreamer executed in a dream the task which he was to perform during the awakening on an experimental night.—Author abstract.

6878. Fodor, Nandor. New approaches to dream interpretation. New York: Citadel, 1962. xvi, 368 p. \$1.95 (paper).—A paperback edition of a book originally published in 1951.—C. T. Morgan.

6879. Fromm, Erika, & French, Thomas M. (U. Chicago) Formation and evaluation of hypotheses in dream interpretation. *J. Psychol.*, 1962, 54(2), 271-283.—Dream interpretation is conceived of in this paper as an artistic as well as a scientific process. The interpreter forms intuitive hypotheses about the meaning of a dream either through a fully illuminating flash about the dream as a whole or through a gradual chain-reaction understanding of separate clues. In either case he must subject his hypotheses to an honest, rigorous, and detailed critical evaluation in order to be sure that he faithfully and sensitively translates into secondary process thinking the total gestalt of the patient's unconscious wish, fear, and dream thoughts. The processes of arriving at hypotheses in the interpretation of individual dreams, different methods of approaching a dream, causes for failure in dream interpretation, and indicators for the correctness of the interpretative hypothesis are outlined. Examples are given.—Author abstract.

6880. Furman, E. Some features of the dream function of a severely disturbed young child. *J. Amer. Psychoanal. Ass.*, 1962, 10(2), 258-270.—When the waking ego relaxed its defenses, the child remembered more of his dreaming. The study of the boy's dreams revealed that his ego was capable of functioning on a much less primitive level than one would assume from his waking defensive symptoms. When the drive content of dreams became too threatening the ego detached both the content and the whole function of dreaming. This defense derived from his early relationship with his mother.—D. Prager.

6881. Harley, M. The role of the dream in the analysis of a latency child. *J. Amer. Psychoanal. Ass.*, 1962, 10(2), 271-288.—The dream provided a safety valve for discharge of excessive excitations and a means to substitute reflective thought for impulsive action. As the ego gained increasing relief from her drive urgencies, the dream material gradually faded from the analysis and reappeared with her renewed tensions at prepuberty. Dreams play a dominant role in a minority of latency children in analysis.—D. Prager.

6882. Root, N. N. Some remarks on anxiety: Dreams in latency and adolescence. *J. Amer. Psychoanal. Ass.*, 1962, 10(2), 303-322.—Latency children are more unwilling than adolescent children to bring anxiety dreams into analysis. The anxiety dream is an attempt to achieve orgasmic discharge which fails. These children seem to become addicted to anxiety excitement. The anxiety dream may also be viewed as a sadomasochistic discharge like a temper tantrum. Anxiety inhibits full discharge which is hungered for but fantasied as total destruction. Being overwhelmed by anxiety in the dreaming or waking state represents failure of mastery over the excessively stimulated sexual and aggressive drives.—D. Prager.

CASE HISTORIES

6883. Field, P. B., Maldonado-Sierra, E. D., Wallace, S. E., Bodarky, C. J., & Coelho, G. V. (Puerto Rico Inst. Psychiatry) An other-directed fantasy in a Puerto Rican. *J. soc. Psychol.*, 1962, 58(1), 43-60.—A TAT story in which the hero decided to adjust himself to the peer group's wishes is the starting point of a culturally-oriented case study of Puerto Rican college student. This student's unsatisfying formal, hierarchical, and impersonal family relationships lead him to seek instead the informal, personal, loosely-organized relationships of a peer group. He tries to achieve success through dependency, conformity, obedience, and conciliation rather than through independent self-assertion.—Author abstract.

6884. Fraiberg, S. Technical aspects of the analysis of a child with a severe behavior disorder. *J. Amer. Psychoanal. Ass.*, 1962, 10(2), 338-367.—The analysis showed how the aggressive and destructive behavior was used defensively. The ego spared itself anxiety thru identification with the aggressor and thru a shift from passive to active. Connections between masturbation fantasies and impulsive acting out provided insights into the defensive role of isolation of affects. The most important part of the analytic work was that which dealt with defenses against affects.—D. Prager.

6885. Sachs, L. J. A case of castration anxiety beginning at eighteen months. *J. Amer. Psychoanal. Ass.*, 1962, 10(2), 329-337.—"What is noteworthy about the case reported here is not only that an oedipal conflict appears to produce castration anxiety at eighteen months, but that there are, in addition, defenses already created against the anxiety."—D. Prager.

PSYCHIATRIC SERVICES

6886. Berkowitz, Norman M., Malone, Mary F., & Klein, Malcolm W. (Human Relations Cent., Boston U.) Patient care as a criterion problem. *J. Hlth. hum. Behav.*, 1962, 3(3), 171-176.—3 independent estimates of the quality of patient care in outpatient departments were collected: (a) difficulty of illness for patient, (b) size of clinic, and (c) medical manageability of illness. Physicians in 53 clinics were questioned, 24 administrators were interviewed, observations of nurse-patient teaching interactions were obtained for 62 nurses, and follow-up data on 3800 patients were collected. Of the many findings, the following are clearest: there is a negative relationship between difficulty of illness for the patient and the amount of follow-up. Clinics dealing with illnesses of high difficulty for the patient have lower levels of patient compliance. However, each aspect of patient care was differentially sensitive to the nature of the clinics.—L. A. Ostlund.

6887. Goodrich, Wells, & Ifund, Boris. (National Inst. Mental Health) Staff perceptions and reality in clinical behavior reporting. *Hum. Relat.*, 1962, 15(4), 351-363.—Behavior reports of child-care workers were evaluated and ranked by the psychiatric and child-care staffs for frequency of desired appearance and impression of appearance in reports. The respective staffs showed significant agreement on the 17 categories. Significant correlations between staff rankings were found in regard to the ideal note, and between the ideal note of the psychiatric staff and the actual note of the child-care staff. The discrepancy between what the psychiatric staff wanted and what it thought was there was larger than the real discrepancy. Causes of displaced dissatisfaction were discussed.—W. W. Meissner.

6888. Hárđi, Istvan. Megfigyelesek az ápolás pszichológiájáról. [Observations concerning the psychology of nursing.] *Magyar Pszichol. Szle.*, 1961, 18(1), 53-60.—The importance of the psychological effects of good nursing care is stressed. In hospitals, where the doctor-nurse-patient relationship is disturbed this can hinder the otherwise perfect physiological treatments. The relationship of the nurse and patient depends greatly upon the personality and attitude of the nurse. The mechanical, the neurotic, and the play-acting nurse are described and their effect on the patients assessed. The most important area of patient-nurse relationship is the technique and style of ward management and the mutual relationship among the ward personnel. Introspection, and the observation of the psychological influence of the nurse's behavior on the patient could help a great deal to correct prevailing faulty and harmful interactions.—E. Friedman.

6889. Rushing, William A. (Florida State U.) Social influence and the social-psychological function of deference: A study of psychiatric nursing.

Soc. Forces, 1962, 41(2), 142-148.—Interviews with 16 psychiatric nurses reveal the use of deferential actions in the attempt to influence the decisions of, as well as to maintain a relationship with, the physicians with whom they work. Discussion centers around these actions, termed "power strategies," which are seen both as actions oriented to a normative order but not in conformity with that order and as reactions to a power order.—A. R. Howard.

Institutional Care

6890. Bloom, Samuel W., Boyd, Ina, & Kaplan, Howard B. (Baylor U. Coll. Medicine) Emotional illness and interaction process: A study of patient groups. *Soc. Forces*, 1962, 41(2), 135-141.—The focus is on the mental hospital as an institution of socialization. The specific aim "is to identify and describe informal patient groups, and to discuss the reciprocal effects of the socialization process in such groups upon the more formal structures and functions of the psychiatric ward." Informal (friendship clique) and formal (group psychotherapy) groups are sampled, and some functions of each are described.—A. R. Howard.

6891. Cortner, Robert Harold. (St. Louis U.) The relation between morale and informal group structure in hospitals. *Dissert. Abstr.*, 1962, 22(11), 4072-4073.—Abstract.

6892. DeLange, Walter H. (U. Houston) Conceptions of patient role by patients and staff in a state mental hospital. *Dissert. Abstr.*, 1962, 22(7), 2461-2462.—Abstract.

6893. Gard, John Griffin. (U. Pittsburgh) Fundamental interpersonal relations orientations in clinical groups. *Dissert. Abstr.*, 1962, 22(11), 4080.—Abstract.

6894. Hutton, Geoffrey. (U. Edinburgh) Management in a changing mental hospital. *Hum. Relat.*, 1962, 15(4), 283-310.—The results of a 9-month study of changes in the authority structure of a hospital under social pressures are presented. "Emphasis upon active treatment, rapid turnover, and greater involvement of doctors in the actual lives of patients began to impose strain on the system. The system was initially a fairly stable but not necessarily efficient juxtaposition of a nurse-directed community and a number of medical practices. . . . Greater activity of the doctors lead to an unstable equilibrium . . . with an occasional breakdown in differentiation to a system of direct control by a divisional consultant." The system analysis is presented in terms of enterprise, viewed as an open system, and a hierarchy of tasks.—W. W. Meissner.

6895. Hutton, Geoffrey. (U. Edinburgh) Managing systems in hospitals: The implications of a case study. *Hum. Relat.*, 1962, 15(4), 311-333.—The implications of the results of a previously published case study (see 37: 6894) are analyzed for hospital management at different levels of the hierarchy. Implications of 3 models of administration are discussed: nursing direction, medical direction, and joint medical-nursing direction. The factors involved in the appropriate choice of alternative are presented in terms of control of the hierarchy of systems and operations.—W. W. Meissner.

6896. Jones, Maxwell. (Oregon State Hosp., Salem) Settings for treatment and training in social psychiatry. *Ment. Hosp.*, 1962, 13(12), 646-650.—Staff education, with particular reference to psychiatric residents, can be furthered by daily ward meetings of the therapeutic community. The author dissents from contemporary emphasis on the general hospital as necessarily the best setting for psychiatric treatment and cites advantages of a progressive mental hospital.—L. Gurel.

6897. Laybourne, Paul C., & Miller, Herbert C. Pediatric hospitalization of psychiatric patients: Diagnostic and therapeutic implications. *Amer. J. Orthopsychiat.*, 1962, 32(4), 596-603.—Short-term hospitalization of emotionally disturbed children on a pediatric ward can help to clarify diagnosis, interrupt symptomatology, and be particularly useful in the treatment of psychosomatic illnesses. Case material is presented to illustrate situations in which pediatric hospitalization has resolved problems which otherwise might not have been resolved on an outpatient basis.—R. E. Perl.

6898. Müller-Küppers, M. (Blumenstr. 8, Heidelberg, Germany) Aufbau, Funktion und Arbeitsergebnisse für das Jahr 1961 einer kinderpsychiatrischen Abteilung. [Structure, function, and results of work for the year 1961 of a child psychiatry department.] *Prax. Kinderpsychol. Kinderpsychiat.*, 1962, 11(5), 167-171.—Statistics of the patients in this clinic with 24 beds for 3-15 year old children and in the outpatient clinic (524 patients) as to medical and psychological symptoms, illnesses, referring agencies, number of contacts, and results of treatments are given.—E. Katz.

6899. Noshpitz, Joseph D. A smoking episode in a residential treatment unit. *Amer. J. Orthopsychiat.*, 1962, 32(4), 669-681.—The details of staff upheaval in a residential treatment center is described. The problem of granting permission to smoke to 2 14-year-old boys was at the base of the difficulty. A meeting was held 15 months after the event to attempt to discover how a well-trained, sophisticated staff could have handled the issue as awkwardly as it did. The author feels that there is something in the right to smoke, as in the right to drive, that is similar to a puberty rite—a sacred mystery to be tampered with at your peril.—R. E. Perl.

6900. Pearlin, Leonard I. (National Inst. Mental Health) Sources of resistance to change in a mental hospital. *Amer. J. Sociol.*, 1962, 68(1), 325-334.—The resistance of nursing personnel to proposed changes in the care of hospitalized mental patients is examined from questionnaires and from information about the wards to which personnel are assigned. Among those in higher positions, resistance is aroused when the changes are seen as interfering with desired relations with patients. Lower placed personnel view change from a different framework; this group opposes change when it is seen in conflict with the performance of ward maintenance functions. Resistance is least likely to be found on those wards where there is some advanced patient-care policy coupled with a leadership friendly to change.—R. M. Frumkin.

6901. Pitt, Brice, & Markowe, Morris. (St. Clement's Hosp., London, England) A new pattern in day hospital development: The West Middlesex Hospital. *Brit. J. Psychiat.*, 1963, 109(Whole No.

458), 29-36.—Admission policies, regime, treatment procedures, rehabilitation and after care emphases, and results are described.—W. L. Wilkins.

6902. Rosenberg, Morris, & Pearlin, Leonard I. (National Inst. Mental Health) Power-orientations in the mental hospital. *Hum. Relat.*, 1962, 15(4), 335-349.—Power attitudes in the interaction among personnel and patients in the mental hospital were studied by questionnaire method. Relations are discussed in the order of preference in terms of persuasion, benevolent manipulation, legitimate authority, contractual power, and coercion.—W. W. Meissner.

6903. Rosengren, William R. The hospital careers of lower-and-middle-class child psychiatric patients. *Psychiatry*, 1962, 25(1), 16-22.—A study of the behavior of child psychiatric patients from different social classes, who were treated at a residential treatment center. The 20 Ss were selected from discharge files and had been diagnosed as passive-aggressive personality, aggressive type. Conclusions were based upon case records which included case-work interviews, psychiatric referrals, psychological and neurological examinations, teacher reports, and staff conference reports.—H. M. Cohen.

6904. Rubin, Eli Z. (Lafayette Clinic, Detroit, Mich.) Special education in a psychiatric hospital. *Except. Children*, 1962, 29(4), 184-190.—The philosophy inherent in this educational setting is discussed. A description is then given of the school program at the Lafayette Clinic, a psychiatric hospital.—J. Z. Elias.

6905. Scofield, John B. Adolescent treatment in an adult hospital. *Amer. J. Orthopsychiat.*, 1962, 32(4), 660-668.—Some aspects of the treatment of 46 adolescent patients in the Menninger Memorial Hospital designed for adults are discussed. If adequate school and recreational facilities can be provided together with intensive individual treatment, it seems that older adolescent patients can be integrated into an adult hospital. Some advantages are the stabilizing influence of adults, the possibility of exploiting adult environment to encourage maturation and to minimize the destructive influence of peer group formation during the early phase of treatment.—R. E. Perl.

6906. Snow, Herman B. (Hudson River State Hosp., Poughkeepsie, N. Y.) The hospital we opened: Some comments in retrospect. *Ment. Hosp.*, 1962, 13(11), 573-579.—The former superintendent of St. Lawrence State Hospital, Ogdensburg, New York, describes the process and results of conversion to a system of unlocked wards and increased patient freedom.—L. Gurel.

6907. Stumpf, John Cecil. (U. Utah) Communication abilities of Veterans Administration nurses. *Dissert. Abstr.*, 1962, 22(9), 3268-3269.—Abstract.

6908. Toobert, Saul; Scott, Frances G., & Lewis, John D. (California Dept. Mental Hygiene) Relation of various indicators of ward management to measures of staff attitudes in a large mental hospital. *J. Hlth. hum. Behav.*, 1962, 3(3), 185-193.—The Levinson Custodial Mental Illness Ideology Scale (CMI) and California Authoritarianism Scale (F Scale) were used to relate measures of staff custodialism and staff authoritarianism to 13 ward manage-

ment indicators. "Low custodialism and low authoritarianism, as well as medium concordance, of staff attitudes were found related to more patients (1) having privilege cards, (2) having off-ward details, (3) having some kind of work detail, (4) attending rehabilitation therapy dances." Likewise, low custodialism was found related to certain types of patients.—*L. A. Ostlund.*

Community Services

6909. Bellows, Helen Elizabeth. (Washington U.) A study of concepts used on community organization, group work, and casework. *Dissert. Abstr.*, 1962, 22(8), 2894-2895.—*Abstract.*

6910. Dinsfriends, Robert. (Jewish Family Service, Worcester, Mass.) Meeting the needs for psychiatric services in the smaller community: A Jewish family agency role. *J. Jewish communal Serv.*, 1962, 39(1), 79-82.—The importance of meaningful cooperation and communication as well as a full awareness of available resources by and among all social agencies in a community is stressed. Worcester, Massachusetts, is used as an example of successful efforts in this direction with particular attention to how the psychiatric needs of the community are being met and the specific role which the Jewish Family Service has been and will continue to play.—*M. A. Seidenfeld.*

6911. Hes, Yosef. (Dept. Social Psychiatry, Talbiye, Jerusalem) Tokhnit kehilatit liveriut hanefesh shel holim psikhotiyim. [Community program of mental health for psychotic patients.] *Dap. refuim*, 1962, 21, 519-523.—Psychotic and postpsychotic patients should be examined to select those suited for a day hospital or family care. Many show more improvement in such a milieu than in a closed institution. A family care system is described and its value stressed on the basis of experiences of the Amsterdam municipal psychiatric service and of studies carried out in the States. A research project was initiated in Israel. (English & French summaries)—*H. Ormian.*

6912. Himmelfarb, Cynthia, & La Pan, Richard. (Hebrew Educational Society, Brooklyn, N. Y.) An experience in serving deviant young adults in a Jewish community center. *J. Jewish communal Serv.*, 1962, 38(4), 398-406.—A description of 2 years experience in serving the needs of socially inept and mentally retarded young males have resulted in the conclusion that deviant and normally functioning young adults can and should be served in a Jewish community center.—*M. A. Seidenfeld.*

6913. Levy, Charles S. (Yeshiva U.) The Jewish community center as milieu therapy. *J. Jewish communal Serv.*, 1962, 39(1), 60-67.—The Jewish community center is viewed as a multidimensional social agency which is capable of serving as a psychotherapeutic modality which follows the objectives of milieu therapy if effecting psychosocial modifications and growth in its members.—*M. A. Seidenfeld.*

6914. Maclay, W. S. Plan para un servicio de salud mental. [A plan for a mental health service.] *Acta psiquiat. psicol. Argent.*, 1962, 8(1), 2-3.—Recommendations for improvement of mental health facilities based on experience in England and 2 underdeveloped nations: (a) the service should be directed

by the same administrators of the general health service and should not be made a separate department; (b) a nucleus of well-trained psychiatrists, psychologists, and nurses should be formed to instruct and assist larger numbers of less well-trained personnel; (c) a large psychiatric unit should be established in the principal city with at least 100 beds plus outpatient facilities; and (d) as soon as possible after the previous suggestions have been realized, the existing psychiatric hospital should be replaced by an occupational village for chronic and geriatric patients.—*W. W. Meissner.*

6915. Samora, Julian; Saunders, Lyle, & Larson, Richard F. (U. Notre Dame) Knowledge about specific diseases in four selected samples. *J. Hlth. hum. Behav.*, 1962, 3(3), 176-184.—The level of knowledge concerning many aspects of 10 diseases was compared for patients in Denver, Reading, South Bend, and New York. Information about tuberculosis was most known, whereas leukemia rated lowest. Sex, age, and ethnicity were not significant variables, but education and socioeconomic position were. "In conclusion, it is evident from this report that the level of health knowledge among the respondents sampled is sufficiently low to be a potential barrier to effective physician-patient communication. Awareness of this generally low level of knowledge and the social factors with which it is associated may be important in effective communication between patients and physicians."—*L. A. Ostlund.*

Case Work

6916. National Conference on Social Welfare. The social welfare forum: 1961. New York: Columbia Univer. Press, 1961. xvi, 325 p.—This consists of the papers delivered at the 88th annual forum. The papers are classified under 4 main categories: "Toward Elimination of Poverty," "Social Work Practice," "International Social Welfare," and "Perspectives."—*G. Elias.*

6917. Waltuck, Murray. (Jewish Family Service, NYC) Diagnostic criteria and treatment methods in averting child placement. *J. Jewish communal Serv.*, 1962, 38(4), 376-384.—Waltuck reports on a tri-partite study of the effect of intensive casework services in aiding families with manifest ambivalence to placement of their child or in which potential to remain intact was considered likely by the child care worker. Emphasis is placed upon the observation that placement of a child should be viewed as a serious symptom of more profound family emotional illness. Treatment of this illness must be undertaken if the child-family disturbance symptom is to be cured.—*M. A. Seidenfeld.*

COUNSELING & GUIDANCE

6918. Adams, James F. (Temple U.) Problems in counseling: A case study approach. New York: Macmillan, 1962. 164 p. \$2.25 (paper).—25 summaries of cases—varying in complexity of problem presented, in technique of approach to the counseling process, and in the level of progress attained both in the counseling relationship and in the solution of the problem—are presented as a supplementary text to stimulate discussion in a course in counselor training. Preceded by a concise survey of counseling theories

and techniques which determine the role of the counselor in the counseling process, the book terminates with a chapter discussing the counselor's ethical responsibilities regarding the welfare of the counselee. Cases presenting problems in educational, vocational, and personal counseling were drawn from elementary school, secondary school, and university counseling and from private agency and private practice sources.—*I. Linnick.*

6919. Baurenfeind, Robert H. (National Coll. Education, Evanston, Ill.) The matter of "ipsative scores." *Personnel Guid. J.*, 1962, 41(3), 210-217.—"Free-response interest scores can be interpreted in a straightforward way, whereas ipsative scores cannot. Free-response scores have more potential for predicting free-response and power-of-performance behaviors than do ipsative scores. And, free-response scores can be readily converted to ipsative scores if one wants to. Alerted to the issues presented in this article, however, we wonder how many counselors will want to." (32-item bibliogr.)—*S. Kavruck.*

6920. Campbell, Robert Edward. (Ohio State U.) Influence of the counselor's personality and background on his counseling style. *Dissert. Abstr.*, 1962, 22(10), 3739-3740.—*Abstract.*

6921. Drechsler, Robert J., & Shapiro, Marvin I. A procedure for direct observation of family interaction in a child guidance clinic. *Psychiatry*, 1961, 24(2), 163-170.—This paper describes a procedure by which direct observations of samples of family interaction in cases of child pathology were made of 5 families in a child guidance clinic.—*C. T. Morgan.*

6922. Kemp, C. Gratton. (Ohio State U.) Influence of dogmatism on the training of counselors. *J. counsel. Psychol.*, 1962, 9(2), 155-157.—Counselor-trainees scoring high on dogmatism change in a permissive and supportive direction on Porter's Test of Counselor Attitudes but toward evaluation and diagnostic responses in actual counseling. Low scorers change less, and there are no differences between actual and hypothetical situations.—*E. R. Oetting.*

6923. Landy, Edward, & Scanlan, Edward. Relationship between school guidance and psychotherapy for adolescents. *Amer. J. Orthopsychiat.*, 1962, 32(4), 682-690.—The school guidance program and psychotherapy should be collaborative and complementary. This is possible only in those guidance situations that provide professional personnel with training and competence. Ego counseling in the schools as the core of guidance focuses on work. The capacity to love is a problem that guidance leaves to the psychotherapist.—*R. E. Perl.*

6924. McNeil, Elton B., & Cohler, J. Robert, Jr. (U. Michigan) The effect of personal needs on counselor perception and behavior. *Pap. Mich. Acad. Sci. Arts Lett.*, 1957, 42, 281-288.—The Ss were 18 male and 15 female counselors who participated in the 1955 session of the University of Michigan Fresh Air Camp. The MMPI, Personal Preference Scale, Elias Family Opinion Survey, and a self-rating inventory were accomplished at time of application for position. Data on hostility and aggression were later obtained. "Under-reporters" of aggressive themes on 4 TAT cards were "our most

successful counselors . . . in handling hostile interpersonal relations with disturbed boys." An "exploratory model for the analysis of data referring to the personal characteristics of our subjects is provided. Finding are considered preliminary."—*S. J. Lachman.*

6925. Pepinsky, Harold B. (Ohio State U.) Some further observations on inference. *J. counsel. Psychol.*, 1962, 9(2), 180-183.—Comments on Milgram's article "Nationality and Conformity" (see 36: 4GB45M). Inadequate cultural considerations are stressed.—*E. R. Oetting.*

6926. Schröter, Ursula. (Fürth, Bavaria, Germany) Die Tätigkeit des Sozialarbeiters im Team der Erziehungsberatungsstelle. [The work of the social worker in the team of the child guidance clinic.] *Prax. Kinderpsychol. Kinderpsychiat.*, 1962, 11(6), 222-226.—General education, special training, tasks and team interaction, and special contributions of the social worker in the agency are described.—*E. Katz.*

6927. Schwebel, Milton. (New York U.) Some missing links in counseling theory and research. *Personnel Guid. J.*, 1962, 41(4), 325-331.—The causes of problems in counseling are the important missing links. When the causes of school failure are known, the counselor will not need to resort to unstable theories about the unconscious or about native dullness. Research into causation is essential.—*S. Kavruck.*

6928. Stearns, Jane Alice. (Washington U.) Clients' perceptions of selected attitudes of social workers as an influence on continuance in counseling. *Dissert. Abstr.*, 1962, 22(8), 2879-2880.—*Abstract.*

6929. Strean, Herbert S. A means of involving fathers in family treatment: Guidance groups for fathers. *Amer. J. Orthopsychiat.*, 1962, 32(4), 719-727.—Work with a group of fathers, each of whom refused to participate in 1-to-1 treatment, yielded both negative and positive results. Some men withdrew because a fathers' group aroused more homosexual anxiety or aggression than could be tolerated. For others the group was a means for uniting a weak, passive, threatened father with his family, giving him some strength to cope with the burdens of being a parent, and helping him to enjoy some of its pleasures.—*R. E. Perl.*

6930. Tyler, Leona E. (U. Oregon) Research on instruments used by counselors in vocational guidance. *J. counsel. Psychol.*, 1962, 9(2), 99-105.—Aptitude tests aid in counseling but not prediction. Interest tests show both validity and limitations. We need developmental data and new approaches.—*E. R. Oetting.*

6931. Wigell, W. W., & Ohlsen, M. M. To what extent is affect a function of topic and referent in group counseling? *Amer. J. Orthopsychiat.*, 1962, 32(4), 728-735.—A content analysis was made of the interactions within a counseling group of 8 9th-grade, gifted underachievers, in terms of topic, referent, and affect. Referent seemed to contribute little to the understanding of the counseling process, but the other 2 should be studied further. Combining interactions for either a group of clients or a group of sessions seems to disguise significant results. Significant interactions are missed without a record of nonverbal as well as verbal behavior.—*R. E. Perl.*

MARRIAGE & FAMILY PROBLEMS

6932. Eysenck, S. B. G., & Eysenck, H. J. (Inst. Psychiatry, U. London, England) **Rigidity as a function of introversion and neuroticism: A study of unmarried mothers.** *Int. J. soc. Psychiat.*, 1962, 8(3), 180-184.—A comparative study of 100 married and 100 unmarried mothers indicates that they did not differ in their rigidity and intelligence scores, but unmarried mothers were significantly more extraverted and more neurotic than married mothers.—R. M. Frumkin.

6933. Goode, W. J. (Columbia U.) **Marital satisfactions and instability: A cross-cultural analysis of divorce rates.** *Int. soc. Sci. J.*, 1962, 14(3), 507-526.—The author presents both theoretical and empirical evidence of an inverse relationship between social class and divorce rates, higher divorce rates being observed among lower-class marriages. Cross national analysis of available divorce statistics tends to confirm this hypothesis.—A. Barclay.

6934. Honoré B. (Centre National Pédagogie Familiale) **La formation en psycho-pédagogie familiale.** [Formation in family psychopedagogy.] *Hyg. ment.*, 1962, 51(4), 202-212.—Discussion of steps which have been taken to provide a "school for parents" in which psychological and educational problems can be studied. The necessity of a coordinating service to bring the various aspects and agencies of the social, psychological, and educational dimensions of family life to bear on concrete problems is discussed.—W. W. Meissner.

6935. Kharchev, A. G. (Acad. Sciences, Leningrad, USSR) **Problems of the family and their study in the USSR.** *Int. soc. Sci. J.*, 1962, 14(3), 539-549.—A discussion of the differences between Soviet and Western approaches to sociology, emphasizing that the study of the family unit is of primary importance to Soviet sociologists.—A. Barclay.

6936. Kiser, Clyde V. (Ed.) **Research in family planning.** Princeton, N. J.: Princeton Univ. Press, 1962. xv, 662 p. \$12.50.—35 papers concerned with the problem of population expansion presented at an interdisciplinary research conference sponsored jointly by the Milbank Memorial Fund and the Population Council in 1960. Problems of family planning in different parts of the world are analyzed, including India, Japan, and other Asiatic countries; the Middle East; Latin America; Europe; and the United States. Major topics covered include: attitudes toward family planning, effectiveness of specific birth control devices and techniques, motivational and educational aspects, and future research problems.—D. G. Brown.

6937. Loesch, John G., & Greenberg, Nahman H. **Some specific areas of conflicts observed during pregnancy: A comparative study of married and unmarried pregnant women.** *Amer. J. Orthopsychiat.*, 1962, 32(4), 624-636.—A group of graduate student wives who were pregnant were compared with a group of unwed pregnant girls living in an institution. The unwed mothers usually suffered some object loss just prior to pregnancy and at least $\frac{1}{2}$ of them expressed a conscious wish for pregnancy as a possible way of forcing continuation of a threatened relationship. Their major concerns were with giving up the infant and with the wish to have a dependent

relationship with a man. The married mothers' main concerns were over bodily changes and apprehension about the pain of labor, whether the infant would be normal, an increased feeling of dependency and irritation toward the husband, and how they might function as a mother. For both groups pregnancy seemed to be a period of mixed feelings with underlying moods of anxiety and depression.—R. E. Perl.

6938. Nakano, T. (Tokyo Kyoiku U.) **Recent studies of change in the Japanese family.** *Int. soc. Sci. J.*, 1962, 14(3), 527-538.—An analysis of social changes and their impact on Japanese family organization.—A. Barclay.

6939. Schlesinger, Benjamin. (Cornell U.) **Development of interspousal participation in decision making of college educated couples.** *Dissert. Abstr.*, 1962, 22(11), 4074-4075.—Abstract.

6940. Schorr, Alvin. (Washington, D. C.) **Family policy in the United States.** *Int. soc. Sci. J.*, 1962, 14(3), 452-467.—"In brief, we have reviewed a number of deep-rooted traditions . . . which have influenced the development of policies affecting families. . . . At present, the family is taking on new significance. . . . Individuals find value in themselves in their families in a way that is . . . rare in other-institutions. As this trend continues we may . . . have a situation in which individual and family goals are fully consistent. We may, therefore, anticipate increasing evidence in national policy of the importance of the family."—A. Barclay.

6941. Talmon-Garber, Y. (Hebrew U., Jerusalem, Israel) **Social change and family structure.** *Int. soc. Sci. J.*, 1962, 14(3), 468-487.—Analysis of the impact of social change on Israeli family life suggests that such changes tend to bring about conflicting foci of identification such that divided loyalty may occur; i.e., the community itself vies with the family members for their support. The operation of this phenomenon is investigated among families in the Kibbutzim and the Moshavim as well as in isolated refugee families.—A. Barclay.

6942. Tharp, Roland George. (U. Michigan) **A factor analytic study of marriage-roles: Expectations and perceived enactments.** *Dissert. Abstr.*, 1962, 22(7), 2470-2471.—Abstract.

MENTAL HEALTH & REHABILITATION

6943. Allinsmith, Wesley, & Goethals, George W. **The role of schools in mental health.** New York: Basic Books, 1962. (Jt. Commission Ment. Illness Hlth. monogr. Ser., No. 7) xiv, 337 p. \$7.50.—An interpretive commentary, based on a survey of 5000 books and articles, on the broad range of mental health problems and practices from nursery schools through universities. Part II is a technical report by W. Cody Wilson and G. W. Goethals exploring sources of tension suggested in the literature. Implications for mental health are discussed in terms of values and norms as perceived by teachers and students. The questionnaire, statistical tables, and a 17 page bibliography are appended.—H. P. David.

6944. Bank Street College of Education. **Integration of mental health concepts with the human relations professions.** New York: BSCE, 1962. x, 132 p. \$2.00.—Proceedings of a lecture series memorializing the late Ruth Kotinsky. 9 contributors from

the fields of education, medicine, psychology, law, religion, nursing, social work, and dentistry attempt to provide answers to the question which her work raised: how can psychodynamic theory and psychiatric research findings be put to use by practitioners other than psychotherapists? The contributors maintain that the professions may better approach their own independent goals through a deeper understanding of human behavior and its motives. The powerful force of emotion affects what an individual believes, how he learns, what crimes he commits, his physical well-being, and how he responds to help.—C. H. Miley.

6945. Brooks, George W., & Deane, William N. (Vermont State Hosp., Waterbury) Rehabilitation of severely disabled hospitalized mental patients. *J. Rehabil.* 1962, 28(5), 13-14.—A description of the comprehensive social psychiatric program for schizophrenic patients at Vermont State Hospital.—M. A. Seidenfeld.

6946. French, John R. P., Jr., Kahn, Robert L., & Mann, Floyd C. (Eds.) Work, health and satisfaction. *J. soc. Issues*, 1962, 18(3), 1-129.—"This issue of the Journal is devoted wholly to the work of a new research program on mental health. . . . The primary objective of the program . . . is to develop a research approach and a body of theory which treats fully the influences of the contemporary environment on mental health. . . . The initial article by French and Kahn . . . proceeds to examine its approach to the self, to the organizational environment, and to criteria of mental health. The article by [Alvin] Zander and [Robert] Quinn . . . is a thorough review of findings from earlier work . . . which have relevance to problems of mental health." The remaining articles are: "The Effects of Occupational Status on Physical and Mental Health" (S. V. Kasl & French), "Some Effects of the Changing Work Environment in the Office" (Mann & L. K. Williams), "A Study of Tensions and Adjustment under Role Conflict" (D. M. Wolfe & J. D. Snoek), and "A Summary and Some Tentative Conclusions" (Kahn & French).—A. Barclay.

6947. Lefton, Mark; Angrist, Shirley; Dinitz, Simon, & Pasamanick, Benjamin. (Ohio State U.) Social class, expectations, and performance of mental patients. *Amer. J. Sociol.*, 1962, 68(1), 79-87.—The influence of social class and expectations on the post-hospital performance of 62 married female mental patients is examined. Both class and expectations were posited as interrelated determinants of performance. The results indicate that this thesis is highly questionable. Social class did not correlate significantly with performance. Patient expectations, on the other hand, were related to such performance in the working class but not in the middle class. The findings suggest that for these cases, disease manifestations are more significant than class and expectations as criteria of post-hospital adjustment.—R. M. Frumkin.

6948. McCann, Richard V. The churches and mental health. New York: Basic Books, 1962. (Jt. Commission Ment. Illness Hlth. Monogr. Ser., No. 8) x, 278 p. \$6.00.—An exploration of the changing roles and concepts among 235,000 clergymen of all faiths, the work of mental hospital chaplains, trends in pastoral counseling, and mental health aspects of theological education. Survey findings on demo-

graphic and personal factors related to church membership are considered along with recommendations on how churches can strengthen their contributions to mental health. A list of 73 pastoral counseling centers is appended. (117 ref.)—H. P. David.

6949. Mahlman, Richard William. (U. Minnesota) Assessing vocational interests of mental patients. *Dissert. Abstr.*, 1962, 22(8), 2876-2877.—Abstract.

6950. Newstrom, Charles Neil. (U. Minnesota) An outcome study of emotionally disturbed and physically disabled veterans rehabilitated at the professional level of education. *Dissert. Abstr.*, 1962, 22(11), 4074.—Abstract.

6951. Nigam, K. P. (Mental Hosp., Agra, India) Mental illness: It is preventable? *Agra U. J. Res.*, 1962, 10, 119-123.—A review of various studies shows that the problem of prevention can be tackled with joint enforcement of suitable measures by the various social sciences.—U. Pareek.

6952. Patterson, C. H. (U. Illinois) Selection of rehabilitation counseling students. *Personnel Guid. J.*, 1962, 41(4), 318-324.—No perfect selection procedure appears to be immediately in sight. Consideration should be given to continued use of tests of scholastic aptitude and to a practicum and work sample approach in evaluation. The use of rigid procedures involving personality tests is not recommended; however, the interview, supplemented with data from personality and interest tests may have value. Selection is not a single event, but a process.—S. Kavruck.

6953. Patterson, C. H. (U. Illinois) Test characteristics of rehabilitation counselor trainees. *J. Rehabil.* 1962, 28(5), 15-16.—The Miller Analogies Test, Edwards Personal Preference Schedule, the MMPI, Strong Vocational Interest Inventory, and the Kerr-Speroff Empathy Test were administered to approximately 550 students enrolled in graduate work in rehabilitation counseling in 20 colleges and universities. Analysis of the data leads Patterson to conclude that the institutions training rehabilitation counselors are selecting students who give evidence of characteristics generally considered desirable in counselors. They seem to have patterns of interest in the helping, social welfare, and psychological professions. Personnel administration is also an area of interest. Rehabilitation counselors seem to have above average empathy, interest in people, and in understanding them. They are self-confident, without undue guilt-feelings, and willing to listen to others and accept suggestions.—M. A. Seidenfeld.

6954. Rothaus, Paul, & Morton, Robert. (VA Hosp., Houston, Tex.) Problem-centered versus mental illness self-descriptions. *J. Hlth. hum. Behav.*, 1962, 3(3), 198-203.—The effect of negative public attitudes toward mental patients upon the patients themselves was investigated. "Participants in the Fourth Human Relations Training Laboratory at the Houston Veterans Administration Hospital took part in a role-playing exercise concerning job interviews. Sixteen participants took the role of employers and rated two job applicants; each of whom described himself and his hospitalization in either problem-centered or mental illness terms. Reactions were considerably more positive toward problem-

centered self-descriptions. Three reasons for the results were considered: (a) the criteria for selecting the participants; (b) the value orientation of the laboratory; (c) stereotyped semantic reactions to the concept of mental illness."—*L. A. Ostlund.*

6955. Thompson, Everett Frederick. (U. Denver) *The Clinical Word Association Test as a quantitative measure of social remission.* *Dissert. Abstr.*, 1962, 22(10), 3742-3743.—*Abstract.*

6956. Tooth, G. C. (Ministry Health, London, England) *Progresos en salud mental.* [Progress in mental health.] *Acta psiquiat. psicol. Argent.*, 1962, 8(1), 4-7.—An account of psychiatric progress in England in the last 3 years. The emphasis on preventive psychiatry in the development of services to the community, growth in facilities for the care of the aged, particularly in terms of mobilization of community resources, increased cooperation between mental hospital and the community, development of facilities for short-term treatment, and establishment of special hospitals for "psychopaths," are singled out for comment. The most significant single event was passage of the Mental Health Act in 1959.—*W. W. Meissner.*

6957. Whitehouse, Frederick A. (American Heart Ass., NYC) *Barriers to rehabilitation.* *Amer. J. occup. Ther.*, 1962, 16(5), 236-240.—A discussion of rehabilitation as a philosophy and the factors which the author considers create pseudo-barriers to the advancement of the rehabilitation process. These he concludes to be largely ignorance, lack of courage, or lack of willingness to set higher level of commitments to the task.—*M. A. Seidenfeld.*

6958. Yeracaris, Constantine A. (State U. New York, Buffalo) *Social factors associated with the acceptance of medical innovations: A pilot study.* *J. Hlth. hum. Behav.*, 1962, 3(3), 193-198.—Interviews with 1/3 of 1647 Buffalo high school students' parents were used to determine barriers to health programs. Among the conclusions are: "The conditions for the effectiveness of programs of public health undertaken to induce our citizens to adopt health measures deemed desirable are: consensus on health values, attitudes, and practices and compatibility between these and the new health measures. Given a heterogeneous society with groups of different and often conflicting norms, values, and practices, health programs must be planned in such a way as to appeal to different social and cultural segments of our society."—*L. A. Ostlund.*

ABNORMAL PSYCHOLOGY

6959. Astigueta, Fernando D. *Psiquiatría y sociología.* [Psychiatry and sociology.] *Acta psiquiat. psicol. Argent.*, 1962, 8(1), 41-45.—Freudian and adaptational influences on sociology are contrasted. The psychoanalytic orientation explains human behavior and social institutions as products of the operation of defense mechanisms (repression) on instincts. The libidinal adaptation of each cultural group depends on the level of fixation reached in the course of libidinal development, and the edipal complex is postulated as a constant in all cultural maturation. The adaptational orientation, however, emphasizes the interaction between individual and environ-

ment. Both variables are operative in the integration of the personality.—*W. W. Meissner.*

6960. Boisen, Anton T. *The exploration of the inner world: A study of mental disorder and religious experience.* New York: Harper (Torchbook), 1962. x, 322 p. \$1.75 (paper).—First published in 1936, this book on the relation of mental illness to religious experience is reissued in a paperback edition. In Part I, "A Journey of Exploration," the author and his students examine the environmental influences, sexual and vocational adjustments, social relations, religious concerns, and the thought content during acute disorders of 173 mental patients who had been evaluated for physiological causation by a group of endocrinologists in the chapter entitled "The Wilderness of the Lost." Other chapters in Part I are "Some Successful Explorers," and "George Fox Among the Doctors." In Part II, "Theoretical Implications," the chapters are entitled: "The Messianic Consciousness," "The Battleground of Character," "The Problem of Right and Wrong," and "The Queen of the Sciences." Part III, "Practical Applications," deals with religion as an attempt to grapple with the realities of life. Chapters are "Where Priest and Physician Meet," "The Church in Action," "Clinical Experience in the Service of the Mentally Ill," "The Distinctive Task of the Minister of Religion," and "The Interrelationship of Individual and Social Salvation."—*G. K. Morlan.*

6961. Brain, R. (86 Harley St., London, England) *The languages of psychiatry.* *Brit. J. Psychiat.*, 1963, 109 (Whole No. 458), 4-11.—A description of the data of psychiatry includes language from anatomy, physiology, psychopathology, learning theory, pharmacology, and typology. Complexity of causality adds an additional difficulty. Because of the legal aspects of responsibility, which means answerable to the law, and the fact that such responsibility is determined by psychiatrists in complicated cases, there is a problem in translation from one of these languages to another, but since no one of these languages is sufficient for the problems described, psychiatry needs all of them.—*W. L. Wilkins.*

6962. Cammer, Leo. (New York Medical Coll.) *Outline of psychiatry.* New York: McGraw-Hill, 1962. xi, 398 p. \$5.95.—Developed in a sequential style, the outline presents a historical review, etiologic and biologic considerations, fundamentals of psychoanalysis and ecology, psychopathology and classification of mental disorders, and a summary of psychiatric therapies. The extensive appendices include an outline for taking psychiatric histories, principles of psychodiagnosis, synopses of frequently encountered clinical syndromes, a review of forensic aspects, and a listing of early contributors to psychiatric history. (60 ref., 8-p. bibliogr.)—*H. P. David.*

6963. Meyer, Ruben; Levitt, Morton; Falick, Mordecai L., & Rubenstein, Ben O. (Wayne State U.) *Essentials of pediatric psychiatry.* New York: Appleton-Century-Crofts, 1962. x, 208 p.—The purpose of this volume is to provide the pediatrician with psychological and psychiatric concepts about children, and to clarify his role with patients. Highlighted is the trend away from physiological to psychological problems and/or preventive psychiatry. The authors admit bias in restricting the psychotherapeutic activities of pediatricians. Psychoanalytic

and developmental concepts dominate, while group and cultural aspects are minimized. Key chapters are entitled: "Psychic Development," "Infancy and Childhood: Normal Development and its Problems," "Emotional Reactions to Trauma and Hospitalization," "Serious Disorders of Development," "The Brain Damaged and Mentally Defective Child," and "Diagnosis and Treatment." Suggestions concerning diagnosis and treatment include examples.—*L. A. Ostlund.*

PHYSICAL HANDICAPS

6964. Garrett, James F., & Levine, Edna S. (Eds.) *Psychological practices with the physically disabled.* New York: Columbia Univer. Press, 1962. xi, 463 p. \$8.75.—The rehabilitation of the physically disabled has become a matter of great concern, particularly in regards to its psychological aspects. The book covers the psychological practices in 12 disability groups. Each chapter deals with the major influences, problems, and procedures in terms of (a) the medical-physical aspects; (b) the psychological implications both in regard to the individual as well as to the family, the community, and the sociocultural and vocational milieu; (c) special considerations in psychological appraisal, such as test modification; (d) special considerations in psychological treatment and rehabilitation; and (e) research findings and needs. The book deals with the following disabilities: amputation (S. Fishman), arthritis and rheumatism (M. A. Seidenfeld), cardiovascular disability (F. A. Whitehouse), hemiplegia (L. Diller), cerebral palsy (R. M. Allen), language disorders (J. M. Wepman), cancer (B. Cobb), facial disfigurement (R. Madan), auditory disability (E. S. Levine), visual disability (N. J. Raskin), deaf-blindness (J. Rothschild), and severe chronic illness (F. C. Shontz).—*V. Sanua.*

Blindness

6965. Ashcroft, Samuel C. (George Peabody Coll. Teachers) *Programmed instruction in braille.* *Int. J. Educ. Blind*, 1961, 11(2), 46-50.—To teach basic mastery in reading and writing Braille in 5 weeks, a specialized text was developed incorporating the principles of programed instruction as used in teaching machines. The Braille code is divided into 8 units for instructional purposes. After adequate mastery at each unit level is attained, as ascertained by a unit test, the next unit is undertaken. 16 students were enrolled in a course using this text. None failed; none dropped out. Validity of the text as a teaching technique is indicated from the correlation of unit test scores with proficiency test scores (.90) and the correlation of final examination scores with proficiency test scores (.77). Correlation of scores from the unit tests and the final examination was .73. A limiting feature of the text is that it can be used only with those who are able to read and write in print.—*J. E. Morris.*

6966. Bateman, Barbara. (U. Illinois) *Sighted children's perceptions of blind children's abilities.* *Except. Children*, 1962, 29(1), 42-46.—232 sighted children in Grades 3 through 8 were asked whether blind children their own age could perform certain activities. Ss with limited contacts with blind children tended to under-rate them.—*J. Z. Elias.*

6967. Bauman, Mary K., & Strausse, Susan H. (Personnel Research Cent., Philadelphia, Pa.) *A*

comparison of blind children from day and residential schools in a camp setting. *Int. J. Educ. Blind*, 1962, 11(3), 74-77.—79 Ss, 36 from day schools and 43 from residential schools, were rated on 15 traits to ascertain their social competency. Ratings represented pooled opinions of the counseling staff. Correlation between all social competency scores with age was .36 and with IQ was .41. Comparison of the scores for the 2 groups favored the children from residential schools; however, the T score was only 2.06.—*J. E. Morris.*

6968. Davis, Carl J., & Nolan, Carson Y. (Perkins School for the Blind) *A comparison of the oral and written methods of administering achievement tests.* *Int. J. Educ. Blind*, 1961, 10(3), 80-82.—Braille adaptations of the Stanford Achievement Tests require that the administration be partially by having the S read the text and partially by having the text material read by the examiner. Subtests administered by the latter method enable Ss to attempt each item. To determine whether the use of sighted norms is appropriate with this modification of administration, 336 Braille-reading Ss, Grades 5-9, were given the appropriate word meaning subtest; Form M by written means, Form K orally. Results of an analysis of variance showed that, "the difference between scores obtained by written and oral methods was significant. The oral method produced the higher scores. However, these differences were significant only in the case of the lowest grade at each level of the test."—*J. E. Morris.*

6969. Foulke, Emerson; Amster, Clarence H., Nolan, Carson Y., & Bixler, Ray H. (U. Louisville) *The comprehension of rapid speech by the blind.* *Except. Children*, 1962, 29(3), 134-141.—"It was felt that those losses in comprehension that were statistically significant were not at all educationally important, especially when the time saved in presenting the material was considered."—*J. Z. Elias.*

6970. Jordan, John F., & Hunter, William F. *Counseling the blind.* *Int. J. Educ. Blind*, 1961, 11(1), 4-9.—A discussion of "some of the theoretical assumptions, practical problems, procedures, and methodology involved in counseling the blind and . . . an operational approach to guide the counselor in helping such individuals to adjust to the world at large."—*J. E. Morris.*

6971. Morris, June E., & Nolan, Carson Y. (American Printing House for the Blind) *Discriminability of tactual patterns.* *Int. J. Educ. Blind*, 1961, 11(2), 50-54.—96 legally blind Ss, Grades 4-12, judged a randomized paired-comparison arrangement of 12 areal type tactual patterns produced in Virkotype (a printing process utilizing plastic ink to achieve an embossed effect) in order to determine which were highly discriminable. 5 patterns qualified, being confused less than 10% of the time with any other pattern or themselves. Differences between grade placement and sex and their interaction were not significant. Correlation of scores with CA was not significant; however, correlation of scores with IQ was. The need for an adequate tactual symbolism for graphic communication to be used in combination with Braille is noted.—*J. E. Morris.*

6972. Nolan, Carson Y. (American Printing House for the Blind) *Legibility of ink and paper color combinations for readers of large type.* *Int.*

J. Educ. Blind, 1961, 10(3), 82-84.—12 partially sighted boys in Grades 5-11 judged the direction of openings in Landolt rings printed in "job black" or "lustre blue" ink on the following 5 paper colors: white, off-white, light buff, ivory, and canary. The rings were successively diminished in size so that the openings decreased from $1\frac{3}{4}$ in. in width to $\frac{3}{4}$ in. in steps of $\frac{1}{4}$ in., the direction of the openings being varied randomly through 8 equally spaced circular positions. The stimuli were exposed at a distance of 175 cm. from the plane of the eye. No significant differences in legibility was found among the 10 paper-and-ink-color combinations.—*J. E. Morris*.

6973. **Weiner, Lawrence H.** (New York State School for the Blind) **Educating the emotionally disturbed blind child.** *Int. J. Educ. Blind*, 1962, 11(3), 77-79.—Assuming that the educable but emotionally disturbed blind child is either consciously or unconsciously manipulating his disturbance in a way enabling him to avoid reality, his teacher must "enforce reality" upon him by "making the child aware of expectations and leading him to them, and not allowing any retreat from those expectations deemed important for life adjustment." 5 steps for achieving this goal are presented.—*J. E. Morris*.

Deafness

6974. **Butterfield, Gail.** (Mansfield State Training School, Conn.) **A note on the use of cardiac rate in the audiometric appraisal of retarded children.** *J. speech hear. Dis.*, 1962, 27(4), 378-379.—3 retarded children and 2 college students were used as Ss, all of whom had apparently normal thresholds for speech sounds. There was no alteration in the heart rate of mentally retarded children during the presentation of the 40 db. tones, but a significant change in the heart rate of normal Ss. The effect of such sounds on the heart rate cannot be used in cases of mentally retarded children with mental ages below 3 years.—*M. F. Palmer*.

6975. **Farrant, Roland Harvard.** (Northwestern U.) **A factor analytic study of the intellectual abilities of deaf and hard of hearing children compared with normal hearing children.** *Dissert. Abstr.*, 1962, 22(8), 2870-2871.—*Abstract*.

6976. **Henderson, Sara Cook, & Francis, Doris H.** (Eds.) **The meaning of deafness: Report of a workshop for audiologists.** *Amer. Ann. Deaf.*, 1962, 107(5), 464-596.—Among the reported contributions of the participants in this Gallaudet and Office of Vocational Rehabilitation conference on audiological, psychoeducational, and vocational aspects of deafness, the most relevant are: "Audiometric Evaluation and Its Relation to Habilitation and Rehabilitation" (D. Robert Frisina); "Special Audiometric Tests: Their Educational Significance" (Robert Goldstein); "Auditory Training" (Shirley P. Stein); "Lipreading" (Shirley A. Cranwill); "Methods of Communication in Teaching the Deaf" (Powrie V. Doctor); "Special Curriculum Needs of the Deaf-Primary Level" (Marjorie E. Magner), secondary level (Edward L. Scouten), and college level (George E. Detmold); "Differential Educational Needs in the Habilitation and Rehabilitation of the Deaf" (Margaret S. Kent); "Psychological Considerations in Early Profound Deafness" (Edna S.

Levine); "Problems Encountered by Parents of Deaf Children" (Robert D. Adams); "Psychiatric Considerations in the School Age Deaf and Psychiatric Considerations in the Adult Deaf" (Kenneth Z. Altshuler); "Counseling Needs and Services for the Adult Deaf" (Howard L. Roy); "Vocational Guidance for the Adult Deaf" (Richard M. Phillips); "Religious Guidance for the Deaf" (Douglas Slasor); "Occupational Status of the Deaf" (Stanley K. Bigman); "The Adult Deaf in Professions" (Alan B. Crammatte); and a section of brief reports on "Organizations: National Efforts Related to Deafness."—*T. E. Newland*.

6977. **Kowalsky, Majorie H.** (Coll. St. Catherine, St. Paul, Minn.) **Integration of a severely hard of hearing child in a normal first-grade program: A case study.** *J. speech hear. Disord.*, 1962, 27(4), 349-358.—Report of a case of a child with a hearing loss of 87 db. in the better ear who was enrolled in a district school and followed carefully throughout one year in order to define the problems attributable to the hearing loss and similar items. At the year's end her academic achievement was satisfactory, she was socially well-adjusted, and her communicative skills had improved significantly.—*M. F. Palmer*.

6978. **Lerea, L., & Yarden, P.** (Noise Control Inst., Tel Hashomer) **Havhanat likuyey shemia etsel yeladim vetinokoto.** [Diagnosis of hearing defects among children and babies.] *Dap. refuim*, 1962, 21, 227-230.—Case histories; clinical observation; and ear, nose, and throat examinations are used for the diagnosis of hearing defects. The Picture-Sound Hearing Test, which measures the hearing threshold of 3-year-old children, is recommended. Instructions are given by pantomime. The stimuli used are of low, middle, and high frequency. (English & French summaries)—*H. Ormian*.

SPEECH DEFECTS

6979. **Carp, F. M.** (Trinity U.) **Psychosexual development of stutterers.** *J. proj. Tech.*, 1962, 26(4), 388-391.—Stutterers did not display any more anal retentiveness in the Blacky than did nonstutterers. Higher scores in castration anxiety (males) and penis envy (females) were found as predicted among stutterers. In general, higher oral erotic and oral sadistic scores were found among stutterers, and these results are consistent with psychoanalytic theory.—*A. F. Greenwald*.

6980. **Holland, Audrey L., & Matthews, Jack.** (Emerson Coll.) **Application of teaching machine concepts to speech pathology and audiology.** *ASHA*, 1963, 5(1), 474-482.—Development of experimental teaching machine programs for discrimination of the [s] phoneme. 4 programs were used with 27 children: 18 males and 9 females between the ages of 8 and 11 with a grade range of 2nd through the 5th grade. Program I based on Powers was the most successful. The authors come to the general conclusion that improvement of [s] discrimination in children is amenable to teaching machine programming.—*M. F. Palmer*.

6981. **Kanizsai, Dezsö.** **Afaziások terapiájának pszichológopédiája.** [Psychologopedics in therapy of aphasia.] *Magyar pszichol. Szle.*, 1961, 18(2), 163-172.—The basis of the psychologopedic therapy

is the complete understanding of the cortical insult. The therapist has to assess the lacking or transformed brain mechanics and the influence that somatic, psychological, and intellectual symptoms have on each other. The collapsed world of the patient has to be rebuilt with the restoration of all faculties. Phonetics alone will not bring restored speech. Therefore, therapy is aimed at the renewing of the patient's mental and physical integrity which then brings about changes in the cortical organization and accelerates restitution.—*E. Friedman.*

6982. Klinger, Herbert. (VA Hosp., NYC) **Imitated English cleft palate speech in a normal Spanish speaking child.** *J. speech hear. Disord.*, 1962, 27(4), 379-381.—Report of a case who had an older brother with a cleft palate who imitated the English of his older brother with marked characteristics of cleft palate speech. In Spanish this boy replied without a trace of cleft palate speech. In order to avoid contact with the already established poor speech influence, the younger brother was kept away from the older one, the parents were advised to speak only English and asked to return for a checking. In a year and a half the case had forgotten how to speak Spanish, and his English was normal.—*M. F. Palmer.*

6983. Peters, Henry N. (VA Hosp., Jefferson Barracks, Mo.) **Interaction of delayed speech feedback, metalingual factors, and chronic schizophrenia.** *J. speech hear. Disord.*, 1962, 27(4), 359-367.—8 schizophrenics and 1 epileptic are compared with a group of 7 nonpatients. 2 13 word sentences were used plus a random arrangement of the words of each and 3 systematized vs. random arrangements of digits. 25-, 10-, 5-noun wordlists made a 3rd experiment. These Ss were then studied for the effect of such material on speech when reading on delayed feedback. There seems to be a positive relationship between systematization of such material and the disrupting effect of such feedback with this relationship being much more marked in the schizophrenic group.—*M. F. Palmer.*

6984. Wingate, M. E. (U. Washington) **Evaluation and stuttering: III. Identification of stuttering and the use of a label.** *J. speech hear. Disord.*, 1962, 27(4), 368-377.—Review of the literature concerning the identification of stuttering and the use of labels. This is the final article of a series of 3 which tend to show that the bulk of research in 3 areas of (a) speech characteristics of young children, (b) conditions of stress in the backgrounds of stutterers, and (c) critical evaluation of speech is either equivocal or contradictory to the evaluation theory as a general explanation of stuttering.—*M. F. Palmer.*

6985. Wyatt, Gertrud L., & Herzan, Helen M. **Therapy with stuttering children and their mothers.** *Amer. J. Orthopsychiat.*, 1962, 32(4), 645-659.—It is believed that the stuttering child has had a crucial disruption of the primary feedback circuit between mother and child which results in aggression-anxiety and that the mother of a stutterer suffers feelings of helplessness and anger. Therapy with the child consists in age-appropriate teaching of patterns of communication, and with the mother, consists in explanation of how she is involved in the child's communication disorder. Both have to undergo a learn-

ing experience. A pilot study shows marked improvement, or a return to normal speech within treatment periods ranging from 4 to 12 months, for 10 out of 12 children under 7 years of age and 5 out of 8 over 7 years of age.—*R. E. Perl.*

NEUROLOGICAL DISORDERS

6986. Hagberg, Bengt. (University Hosp., Uppsala, Sweden) **The sequelae of spontaneously arrested infantile hydrocephalus.** *Develpm. Med. child Neurol.*, 1962, 4(6), 583-587.—In the cases of 26 apparently normal children and adults, "many" had been late in motor and mental development (especially in the early years), signs of ataxia were present in 12, squint was present in 11, Terman-Merrill test results showed more than expected falling in the 70-90 IQ range, and "behavior deviations were common especially in the lower IQ groups and in children with neurological abnormalities."—*T. E. Newland.*

6987. Johnson, Laverne C., Davidoff, Robert A., & Mann, Stuart H. **Brain activity, seizure discharges and behavior.** In San Diego Symposium for Biomedical Engineering, *Proceedings*. La Jolla, Calif.: SDSBE, 1962. Pp. 233-244.—"As part of a continuing study of the relationship between paroxysmal EEG activity and behavior, data from 24 patients have been presented. Of primary interest were the possible changes in autonomic activity during paroxysmal activity and the effect of paroxysmal activity on motor and cognitive performance. During subclinical paroxysmal activity there was no change in autonomic activity and in most patients no impairment in functioning. Clinical discharges were associated with autonomic changes and with impairment in one or more tasks. In petit mal patients, of particular interest was the drop in skin resistance after the cessation of the discharge even though other autonomic changes occurred during the discharge."—*C. T. Morgan.*

6988. Jones, I. Pierce. (Royal Perth Hosp., Western Australia) **Psychomotor epilepsy.** *Develpm. Med. child Neurol.*, 1962, 4(6), 612-619.—"In nearly 80% of cases, psychomotor seizures are associated with epileptogenic foci in the temporal lobes, but in the remainder the focus is in other cortical areas (frontal or Sylvian)." The underlying lesion, psychological accompaniments, and diagnosis are discussed. "By use of thiopental-sleep activation and sphenoidal electrodes a positive diagnosis has been obtained in 95% of cases."—*T. E. Newland.*

6989. Knehr, Charles A. (Cornell U. Medical Cent.) **Differential impairment in multiple sclerosis.** *J. Psychol.*, 1962, 54(2), 443-451.—The performances of controls, multiple sclerotics, and non-MS patients with cerebral damage were compared on the same battery of tests. The multiple sclerotics showed a significant preservation of general intellectual ability compared to other organics while showing equal or greater impairment in the remaining functions measured.—*Author abstract.*

Brain Damage

6990. Allison, R. S. (Royal Victoria Hosp., Belfast, Ireland) **The senile brain: A clinical study.** Baltimore, Md.: Williams & Wilkins, 1962. vi, 288 p. \$10.00.—". . . in the cortical realm of function the

views held by protagonists of the old schools are being criticized by the experimental psychologist, who seeks to delineate some factor or factors in brain injured persons which may influence and determine the varied disturbances of intellectual function shown by them. It is for these reasons that the aim has been to make the book primarily descriptive and to concentrate on details of clinical observations made in individual cases." The clinical materials were 198 patients, ages below 40 to over 70, who showed "impairment of memory and intellect" and "persistent signs of mental disorder." Topics covered include general physical examination, neurological examination, organic mental testing, acute disturbances of consciousness, chronic amnesic syndromes, disorders of speech and language, disorientation, apraxia and agnosia, and differential diagnosis and treatment. (300 ref.)—*D. T. Herman.*

6991. Bechtoldt, H. P., Benton, A. L., & Fogel, M. L. (U. Iowa) An application of factor analysis in neuropsychology. *Psychol. Rec.*, 1962, 12, 147-156.—An exploratory attempt to develop explicitly and empirically defined behavioral concepts for evaluating the relationship between cerebral disease and performance deficits. 100 patients given 18 tests, "defects in which have been related on clinical observational grounds to disease of the parietal and occipital lobes in man." Results of a modified centroid analysis (graphic rotation) yielded 5 factors. Coupled with subsequent multiple regression analysis, these techniques resulted in the selection of 6 variables which "appear to be a useful set for further empirical work."—*R. J. Seidel.*

6992. Benton, A. L., Sutton, S., Kennedy, J. A., & Brokaw, J. R. (State U. Iowa) The crossmodal retardation in reaction time of patients with cerebral disease. *J. nerv. ment. Dis.*, 1962, 135(5), 413-418.—With serial presentation of stimuli, will brain damaged patients show changes in simple reaction time as a function of changes in the stimulus, and, if so, will these changes differ from those shown by non-cerebral-damaged Ss? It was found that "both patients with cerebral disease and schizophrenic patients show excessive susceptibility to the cross-modal [sensory] retardation effect in simple high speed performance tasks."—*N. H. Pronko.*

6993. Fantalova, V. L. (USSR Acad. Medical Sciences, Moscow) Nekotorye osobennosti tehnii sledovykh reaktsii v sfere zritel'nogo analizatora pri lokal'nykh porazheniiakh zatylochnoi doli bol'shikh polusharii cheloveka. [Some features of the course of trace reactions in the sphere of the visual analyzer of patients with local lesions in the occipital lobe.] *Zh. vyssh. nervn. Deiatel.*, 1962, 12(6), 1034-1041.—During the elaboration of motor CRs to optic stimuli with verbal reinforcement, intensive visual afterimages ("pathological after-images") were observed in 9 out of 25 patients. The afterimages are usually of a light-blue, dark-blue, or grey color, appear in a wave-like manner, and are so intense that S perceives them as real. Conditioned connections can be formed between afterimages and movement. These afterimages are explained as Purkinje afterimages distorted and intensified due to the action of the pathological focus on the occipital visual area.—*A. Cuk.*

6994. Joynt, R. J., Benton, A. L., & Fogel, M. L. (U. Iowa) Behavioral and pathological correlates of motor impersistence. *Neurology*, 1962, 12(12),

876-881.—Motor impersistence (MI) denotes inability of some brain-damaged individuals to sustain certain voluntary motor acts. It "is rather specifically associated with lesions of the nondominant hemisphere and might be due to cortical involvement." The authors first determined what degree of MI existed in a sample of control patients and utilizing these norms, ascertained the incidence of excessive MI in brain-damaged patients. The results of psychological testing were "correlated with the history, neurological examination, and pathologic findings in an effort to determine the clinical significance and essential nature of the phenomenon of MI. . . . our findings indicate that it would be wise to assign a specific localizing value to MI on the basis of the data now available. The phenomenon is perhaps best classified as still another example of the oscillation in level of function which is so frequently shown by patients with cerebral disease, and which may be expressed in diverse forms such as short attention span, emotional lability, and fluctuation of sensory thresholds."—*R. Gunter.*

6995. Kinsbourne, M., & Warrington, Elizabeth K. (National Hosp., Queen Square, London, England) A variety of reading disability associated with right hemisphere lesions. *J. Neurol. Neurosurg. Psychiat.*, 1962, 25(4), 339-344.—"Six right-handed patients with right (minor) hemisphere disease and reading disability were shown to make paralexical errors predominantly limited to the beginning of the word. They made similar errors when confronted with letter groups or words presented tachistoscopically in the intact right half field. The reading disability, unassociated with dysphasia and dysgraphia, was the result of an abnormality of perception, not only of words but also of other visual forms. This abnormality was determined by an abnormal distribution of visual attention. Its presence provided evidence of neglect of the left side of space and thus of a right parietal lesion." (21 ref.)—*M. L. Simmel.*

6996. Pevzner, S., Bornstein, B., & Loewenthal, M. (Municipal Hosp., Tel-Aviv, Israel) Prosopagnosia. *J. Neurol. Neurosurg. Psychiat.*, 1962, 25(4), 336-338.—Brief recapitulation of previously published (see 34: 6452) clinical findings in a 64-year-old patient with prosopagnosia, topographical disorientation, simultanagnosia, achromatopsia, and left homonymous hemianopsia. In the succeeding 4 years most of the symptoms gradually disappeared, leaving only the prosopagnosia and a left upper quadrant scotoma. As originally predicted, necropsy demonstrated 2 lesions, one in the region of the left angular gyrus and another at the lower lip of the right calcarine fissure.—*M. L. Simmel.*

6997. Pollack, Cecelia. (Levittown, N. Y.) Sleep-learning as an aid in teaching reading to a brain-injured boy. *J. ment. Defic. Res.*, 1962, 6(2), 101-107.—"This study was designed to test whether sleep-learning could be productive as a supplement to conscious learning in teaching a brain-injured boy . . . the blending of short vowel sounds into words. . . . The results of the study indicate that learning of auditory material does occur during partial sleep."—*A. Barclay.*

6998. Thomas, James Deward. (Indiana U.) An assessment of some psychological factors involved in brain injury. *Dissert. Abstr.*, 1962, 22(9), 3269-3270.—*Abstract.*

Cerebral Palsy

6999. Skatvedt, Marit. **Cerebral palsy in Norway.** *Develpm. Med. child Neurol.*, 1962, 4(6), 663-664.—Presented briefly are the service developments for children which started in 1951. The present 12 residential treatment homes, 4 outpatient centers, and 10-15 other hospital and treatment centers provide services so that all such children who need them can get them. "The cost of such treatment is met by the State Health Insurance system."—T. E. Newland.

7000. Twitchell, Tomas E., & Ehrenreich, Donald L. **The plantar response in infantile cerebral palsy.** *Develpm. Med. child Neurol.*, 1962, 4(6), 602-611.—In such patients, "the plantar response as generally elicited (e.g., by key drag) may yield seemingly paradoxical results and its interpretation may be difficult." The possible ambiguities and confusions in diagnosis and neurological implications are discussed.—T. E. Newland.

7001. Yanagi, Garret Honoru. (U. Tennessee) **An appraisal of psychologic deficit in children with cerebral palsy.** *Dissert. Abstr.*, 1962, 22(11), 4088-4089.—Abstract.

MENTAL RETARDATION

7002. Appell, M. J., Williams, C. M., & Fishell, K. N. **Significant factors in placing mental retardates from a workshop situation.** *Personnel Guid. J.*, 1962, 41(3), 260-265.—Using a Work Evaluation Report (WER), an attempt was made to distinguish between retardates considered long-term trainees in a workshop and those who have achieved competitive employment after exposure to a workshop. On the WER, 16 items were found significantly higher for the long-term group. Time in workshop and Wechsler nonverbal scores further distinguished the employed from the long-term group. Workshop goals and purposes should be studied.—S. Kavruck.

7003. Appleton, M. D., & Pritham, G. H. (Pennsylvania State U.) **Biochemical studies in mongolism: II. The influence of age and sex on the plasma proteins.** *Amer. J. ment. Defic.*, 1963, 67(4), 521-525.—This paper, following upon the previous one by the same authors (see 37: 7024), explores age and sex differences. The findings reported are as follows: (a) No significant differences exist between the sexes within or between the mongoloid and control samples for any of the protein fractions studied. (b) Total protein values show no variation for sex and age when the samples are compared either within or between groups. (c) There is a definite tendency for the concentrations of albumin to decrease and of gamma-globulin to increase with increasing age. The most significant results are the persistently high concentrations of gamma-globulin and the low concentrations of albumin in mongoloids. (d) Significant differences in the relative percentages of albumin, alpha₁- and alpha₂-globulins, and the albumin/globulin ratio, as well as the mobilities of the gamma-globulin fractions, were found between the total mongoloid and control samples and between corresponding age groups within each sample.—V. S. Sexton.

7004. Barsch, Ray H. (Jewish Vocational Service, Milwaukee) **Learning disorders of handicapped children.** *J. Rehabil.*, 1962, 28(5), 10-12.—The processing mode hierarchy is the concept used

in analyzing the factors involved in the learning disorders of handicapped children. This analysis is focussed upon the child's visual, auditory, kinesthetic, motor, and tactual deficits which contribute to his underachievement in learning. These factors are considered from the standpoint of the total learning demand and provide a basis for determining the hierarchical relationship of these capacities and the nature of the etiological sources of deficit involved. This process is a systematic way of analysis and points the way to needed corrective procedures applicable to the specific child.—M. A. Seidenfeld.

7005. Baumeister, Alfred A. (George Peabody Coll. Teachers) **The dimensions of abilities in retardates as measured by the Wechsler Intelligence Scale for Children.** *Dissert. Abstr.*, 1962, 22(9), 3270.—

7006. Beolchini, P. E., Bencini Bariatti, A., & Morganti, G. **Indagini genetico-statistiche sulle fratrie di 432 soggetti mongoloidi.** [Genetic and statistical surveys on the sibships of 432 mongol propoiti.] *Acta genet. med. gemellolog.*, Rome, 1962, 11(4), 430-449.—A statistical analysis has been made on the clinico-anamnestic information concerning 432 mongol propoiti, taking into particular consideration the age of parents, the order of birth, and the reproductive features observed in the families of the propoiti. The authors furthermore examine the possibility of making an eugenical counseling concerning the probability of a new occurrence of the syndrome.—*Journal abstract.*

7007. Blackman, L. S., & Holden, E. A. (Edward R. Johnstone Training & Research Cent., Bordentown, N. J.) **Support vs. non-support in an autoinstructional word program for educable retardates.** *Amer. J. ment. Defic.*, 1963, 67(4), 592-600.—2 equated groups of educable, nonreading, retarded adolescents were compared in their performance on a Support (prompting) and a Non-Support (confirmation) program designed to teach 4 words. The number of responses required to complete 16 test frames, the number of these 4 words successfully read from cards immediately after training, and the number of words successfully read 24 hours after training were the dependent variables. An automated self-instructional device was the means of program presentation. No differences were reliable, although learning resulted and differences between the 2 groups were consistently in the direction of better performance under the Support program. The hypothesized inverse relationship between IQ and number of responses required to complete the program, with this inverse relationship greater for the Non-Support than the Support program appeared but was not significant. As expected, there was no significant difference between the mean number of responses on the various full support, reduced support, and test frame categories of the Support program. Significant differences were obtained between analogous categories of the Non-Support program.—V. S. Sexton.

7008. Castets, Bruno, Lefort, R., & Reyns, M. (Cent. Psychiatric Infantile, Rue Albert-de-Mun, Armentières) **Note critique sur la notion d'arriération mentale et quelques notion connexes.** [Critical note concerning mental retardation and connected phenomena.] *Evolut. psychiat.*, 1962, 27(3), 379-391.—A survey of the literature indicates

that mental retardation is not attributable to neurological lesions. "On the other hand, experience in our department has shown us that a simple change of organisation or of atmosphere has led to a considerable improvement in the behaviour of children thought to be ineducable and semi-educable imbeciles. Thus out of 50 children deemed imbeciles it was possible to teach 48 of them satisfactorily. These elements along with the relationship of clinical symptomatology of the states known as mental backwardness and of numerous psychotic states in the child lead us to put forward the hypothesis of a psychogenesis of mental backwardness which, in the great majority of cases would appear as the expression of a psychotic structure."—*L. A. Osilund.*

7009. Clark, E. T. (St. John's U.) Sex role preference in mentally retarded children. *Amer. J. ment. Defic.*, 1963, 67(4), 606-610.—A projective test of sex role preferences, the It Scale for Children, was administered to 66 male and 50 female retardates enrolled in educable and trainable public school classes. "Significant differences were found between the sex role preferences of male and female Ss. Masculine sex role preferences in both male and female Ss are most highly correlated with M.A. No exclusively feminine patterns of sex role preferences were found in either male or female Ss, but exclusive male patterns of sex role preferences are found in both male and female retardates."—*V. S. Sexton.*

7010. Cochran, Irene L., & Cleland, C. C. (Abilene State School, Tex.) Manifest anxiety of retardates and normals matched as to academic achievement. *Amer. J. ment. Defic.*, 1963, 67(4), 539-542.—This study employing a small sample of retarded Ss supports the hypothesis that retarded 4th-grade Ss have more manifest anxiety than normals achieving academically at the same level and more than normal Ss of their own chronological age. According to the CMA Scale Lie scale, retarded and normal 4th graders tend to lie significantly more than normal teenagers.—*V. S. Sexton.*

7011. Dentler, Robert A., & Mackler, Bernard. (U. Kansas) Mental ability and sociometric status among retarded children. *Psychol. Bull.*, 1962, 59(4), 273-283.—"A review of representative studies of the relation between ability and sociometric status among normal children, institutional retarded children, and noninstitutional retarded children, indicated high agreement with the generalization that individual ability is positively and significantly associated with choice status. . . . Studies that attend exclusively to the relation between intelligence and status should be avoided, while efforts to predict status within groups undergoing formation or change should be increased."—*W. J. Meyer.*

7012. Ellis, N. R., Hawkins, W. F., Pryer, Margaret W., & Jones, R. W. (George Peabody Coll. Teachers) Distraction effects in oddity learning by normal and mentally defective humans. *Amer. J. ment. Defic.*, 1963, 67(4), 576-583.—To test the effects of 2 types of distraction upon oddity learning by normal and mentally defective Ss of MAs 6, 7, and 8, 288 Ss were assigned to a design consisting of 24 cells. The latter derived from the 6 normal and defective groups studied under 4 conditions. In 1 condition Ss performed before a large mirror in which they observed their own movements. A black

cloth covered the mirror for a control group for this treatment. A 2nd treatment involved the attention value of the stimulus objects. 10 with high distracting value and 10 with low were used. The central hypothesis, that the defective S would be more adversely affected by distraction than the normal, was not confirmed.—*V. S. Sexton.*

7013. Gage, Ruth M., & Wolfson, I. N. (Letchworth Village, Thiells, N. Y.) Four years of experience with day work program at Letchworth Village. *Amer. J. ment. Defic.*, 1963, 67(4), 563-568.—A review of the day work program established at Letchworth Village in 1957 to give patients part-time work experience before permanent placement out of the institution is presented. After a 4 year period the follow-up indicates that 376 patients have taken part. Of these, 189 were placed out of permanent work placement under supervision of the social service department or were returned to their families. 111 patients in the program had IQs from 41 to 50. 110 resided in the institution from 21 to 40 years and 83 were 41 years of age or older. Of the 189 who were placed in the community, 44 had IQs from 41 to 50, 52 resided in the institution from 21 to 40 years, and 37 were 41 years of age or older. Those returned to their families were somewhat younger and lived in the institution for shorter periods than those placed in employment under social service department supervision. All of the 13 patients who escaped from the program were under 23 years of age.—*V. S. Sexton.*

7014. Girardeau, F. L., & Spradlin, J. E. (U. Kansas) Gestural cues in discrimination learning by retarded children. *Amer. J. ment. Defic.*, 1963, 67(4), 584-588.—36 mental retardates in 3 groups of 12 were given a spatial successive discrimination learning task in which the cue for solution was either the color of the background, a gesture by the E, or a combination of these 2 cues. All were given 500 trials during a 10-day period. Performance was rated in terms of change in performance over the 500 trials. For the 3 groups there was a significant increase in correct responses. No significant differences were found among the groups and there was no significant interaction between trial blocks and groups. A retention test of 50 trials was run 3 months later. Over the 3-month interval, retention was nearly perfect, with no significant differences among the groups in retention performance.—*V. S. Sexton.*

7015. Gorlow, L., Butler, A., & Guthrie, G. M. (Pennsylvania State U.) Correlates of self-attitudes of retardates. *Amer. J. ment. Defic.*, 1963, 67(4), 549-555.—164 institutionalized female retardates were administered the Laurelton Self-Attitude Scale. Scores on the subtests of this scale were correlated with several measures in the areas of achievement early experience, and personality. Small but significant positive relationships were found between self-acceptance and measures of intelligence, school achievement, success in the institutional training program, and success on parole. The authors affirm that the finding that retardates who were separated from their parents at an early age express more negative self-attitudes is congruent with the expectation that self-attitudes are formulated at an early age and are influenced by family stability. Self-acceptance also was observed to be associated with certain dimensions of social needs and certain modes of response

to hostility. Those expressing high degrees of self-acceptance tend to express less need for the support of others and to accept their own hostility.—V. S. Sexton.

7016. Guskin, S. L. (George Peabody Coll. Teachers) **Measuring the strength of the stereotype of the mental defective.** *Amer. J. ment. Defic.*, 1963, 67(4), 569-575.—The "strength" of the stereotype of the mental defective was studied on 2 different samples and with 2 different measurement procedures. Employing a more traditional methodology, the author asked the Ss to rate the qualities of an average 18-year-old boy and also one who had been in a training school for the retarded. Those adjectives which most clearly differentiated between the 2 sets of ratings were regarded as the stereotype of defective and the degree of agreement among the Ss in attributing these traits to the defective was termed the "strength" of the stereotype. In the 2nd method the same Ss were presented with typewritten sketches of 2 "persons" and the Ss were asked to rate these persons on a set of traits. For $\frac{1}{2}$ of the Ss the critical group membership information was included within one of the sketches and for the other $\frac{1}{2}$ within the other sketch. The Ss were 40 college students responding to a questionnaire and 50 persons of different social and educational background who were interviewed. There was agreement in both samples on attributed assigned to defectives and little difference between samples in nature of ratings. The consensus indicated considerable stereotype "strength." This is seen to agree with other studies in the fact that stereotypes are not indiscriminate in their effects upon judgment.—V. S. Sexton.

7017. Guthrie, G. M., Butler, A., & Gorlow, L. (Pennsylvania State U.) **Personality differences between institutionalized and non-institutionalized retardates.** *Amer. J. ment. Defic.*, 1963, 67(4), 543-548.—3 inventories were administered to female Ss in an institution and to groups of retardates who were still at home. The groups were matched on IQ and age and were comparable with respect to socioeconomic background. The authors conclude that girls who have been placed in an institution have a much more negative set of self-attitudes than those who remain in their homes. They see themselves as of less value and as more dominated by their own needs. The institutionalized are less able to acknowledge angry feelings in the face of frustration than are those who have succeeded in the community. Some evidence is presented which indicates that these reactions are not the result of the loss of freedom. According to the investigators, it is probable that these attitudes play a significant role in the failure of these girls to adjust to society's demands.—V. S. Sexton.

7018. Kaufman, M. E. (U. Wisconsin Medical School, Madison) **The formation of a learning set in institutionalized and noninstitutionalized mental defectives.** *Amer. J. ment. Defic.*, 1963, 67(4), 601-605.—96 object-quality discrimination learning problems were presented to 2 matched groups of 14 cultural-familial mentally retarded children, ranging in age from 9.3 to 16.9. The experimental group consisted of institutionalized Ss and the controls lived with their families in marginal community dwellings. During 12 experimental days and after 96 problems, the home group had a higher mean number of correct

responses than the institution group and these differences were significant. All the Ss in the community showed significant amounts of learning after 96 problems, whereas $\frac{1}{2}$ of the institution group still functioned at chance level. Chronological age had a significant influence on initial learning scores. The older retarded children made more correct responses during the early phase of the experiment. As learning continued, both younger and older children living at home learned more rapidly than institutional Ss. The younger institutional children were most adversely affected, giving the poorest performance of any group within the study.—V. S. Sexton.

7019. McKinney, J. P., & Keele, Tina. (Columbus State School) **Effects of increased mothering on the behavior of severely retarded boys.** *Amer. J. ment. Defic.*, 1963, 67(4), 556-562.—Previous investigations of maternal deprivation have been inconsistent in their conclusions concerning the behavioral effect in children. This study reevaluated the independent variable of mothering and its effects in the light of more recent studies of sensory deprivation in animals. This research differs from the previous in its emphasis on the sensory aspects of mothering as well as in its multidimensional approach to the dependent variable of behavioral change in the child. 24 severely retarded boys were the Ss. Mothering was defined as increased physical attention, given by a group of older, mildly retarded women. Behavior changes in the boys were measured in terms of scores on 8 orthogonal factors known to be relevant to this sample. Significant improvement in 4 of these factors was found for the experimental group when compared to a matched control group. Most significant changes were in purposive behavior and language communication.—V. S. Sexton.

7020. McKinney, John Paul. (Montreal Children's Hosp., Canada) **A multidimensional study of the behavior of severely retarded boys.** *Child Developm.*, 1962, 33(4), 923-938.—The time-sampling observations of 48 severely retarded boys were factor analyzed in an effort to discover the independent dimensions relevant to a description of the group. 13 independent behavioral factors emerged of which 8 appeared to be group factors and accounted for better than 50% of the variance. The 8 factors are: Purposefulness, Lack of Restraint, Self (Bodily) stimulation, Age, Social Interaction, Neuromuscular Control, Verbal, and Emotional Maladjustment. Studies suggested by theoretical interpretations of the various factors are presented.—W. J. Meyer.

7021. McKinney, John Paul. (Ohio State U.) **A multidimensional study of the behavior of severely retarded boys.** *Dissert. Abstr.*, 1962, 22(7), 2467-2468.—Abstract.

7022. Miller, Martin Bert. (George Peabody Coll. Teachers) **Locus of control, learning climate, and climate shift in serial learning with mental retardates.** *Dissert. Abstr.*, 1962, 22(8), 2887.—Abstract.

7023. Pevzner, M. S. **Oligophrenia: Mental deficiency in children.** New York: Consultants Bureau, 1961. xiii, 406 p. \$15.00.—The author, senior psychiatrist in the Moscow Institute of Defectology, presents a discussion of the findings of Soviet clinical investigations of retarded children. The work is concerned with identifying the behavioral manifestations

and concomitant physiological substrates which characterize the mental retardate. A theory engendered by these investigations is offered, and implications are drawn for conceptualizing the nature of the psychological deficit arising from retarded mental development. (232 ref.)—*A. Barclay.*

7024. Pritham, G. H., Appleton, M.D., & Fluck, E. R. (Pennsylvania State U.) **Biochemical studies in mongolism: I. The influence of environment on the concentration and mobilities of plasma proteins.** *Amer. J. ment. Defic.*, 1963, 67 (4), 517-520.—Concentrations and mobilities of albumin; α_1 , α_2 , β , and gamma-globulins; and of fibrinogen were determined in the blood of institutionalized and noninstitutionalized mongoloids, institutionalized nonmongoloid retardates, and normal controls. Statistical analysis revealed that institutionalized mongoloids have significantly higher concentrations of gamma-globulin, significantly lower concentrations of albumin, and significantly lower mobilities of gamma-globulin than either the normal controls or the institutionalized nonmongoloid retardates, but that these parameters are not significantly different for the noninstitutionalized mongoloids. It is indicated that the institutional environment induces significant aberrations in the concentrations of certain plasma proteins. Highly significant or significant differences for albumin/globulin ratios and for the concentrations of α_2 -globulin were found when institutionalized mongoloids were compared with the normal controls or with the institutionalized nonmongoloid retardates. In general, differences among all 4 groups were not significant for the concentrations or mobilities of other plasma proteins.—*V. S. Sexton.*

7025. Ring, Elizabeth Jane McLaughlin. (U. Minnesota) **The relationship of paired-associate learning and retention in retarded and normal children to length of anticipation interval and selected ability measures.** *Dissert. Abstr.*, 1962, 22 (11), 4100.—*Abstract.*

7026. Silverstein, A. B., Fisher, G. M., & Owens, E. P. (Pacific State Hosp., Pomona, Calif.) **The altitude quotient as an index of intellectual potential: III. Three studies of predictive validity.** *Amer. J. ment. Defic.*, 1963, 67 (4), 611-616.—3 studies were done to test the predictive validity of the altitude quotient (AQ). They were concerned with the prediction of the IQ of retardates after hospitalization, the prediction of their release from the hospital, and the differentiation of retardates from pseudo-retardates. The results of the 3 studies were similar: (a) both AQ and IQ were valid predictors, although IQ tended to have greater predictive validity; (b) the validity of the optimally weighted combination of the 2 measures was about the same as the validity of IQ alone; and (c) AQ, independent of IQ, was no longer a valid predictor, whereas IQ, independent of AQ, still possessed predictive validity. The authors note that the 3 studies were interrelated and so the negative findings with respect to AQ do not have the same weight as would the results of 3 independent studies. They feel that their results raise the fundamental question of whether AQ is measuring anything at all that is not measured by IQ.—*V. S. Sexton.*

7027. United States Department of Health, Education, and Welfare, Committee on Mental

Retardation. **Mental retardation: Activities of the U. S. Department of Health, Education and Welfare.** Washington, D. C.: USDHEW, CMR, 1962. viii, 77 p. \$.50.

BEHAVIOR PROBLEMS

7028. Bier, William C. (Ed.) **Problems in addiction: Alcoholism and narcotics.** New York: Fordham Univer. Press, 1962. 247 p. \$.50.—Proceedings of the Institute on Pastoral Psychology held at Fordham University in June 1959. The following topics are reviewed: the extent of the problem (Yvelin Gardner, R. J. Campbell, Raymond H. H. Kennedy, Ruth Fox, Christopher Sower, Joseph Hirsh, & Eva Rosenfeld); viewpoints typical of concerned professional groups, such as the church (John C. Ford & Norman C. Eddy), the police (Arthur M. Grennan), medicine (Kenneth W. Chapman), and the law (John M. Murtagh); and advances in treatment (Adele C. Streeseman, Frederick Lawrence, Herbert Berger, Rafael R. Gamso, Leon Brill, & John J. Pasciutti). Attitudes toward these behavioral deviations change most slowly, but therapy and education rather than penal approaches are helping provide new solutions.—*W. L. Wilkins.*

7029. Hauck, A. **Beitrag zur Psychoendokrinologie des Masochismus.** [Contribution to the psychoendocrinology of masochism.] *Acta psychosom. psychosom.*, Basel, 1962, 10 (4), 265-279.—In a 60-year-old male, masochism is shown to be a complex interaction of heredity, constitution, disposition, and exogenous and psychological factors. The infantile-feminine habitus, and deficient androgen and excess estrogen metabolism suggest a secondary pituitary hypogonadism. Without normal development, fixation occurred in the polymorph perverse stage.—*G. Rubin-Rabson.*

7030. Reger, R. (Wayne County Training School, Northville, Mich.) **Eye-hand coordination, peer acceptance and emotional disturbance.** *Amer. J. ment. Defic.*, 1963, 67 (4), 589-591.—25 boys from a special unit of the Wayne County Training School were ranked on several characteristics. No significant relationship was found between sociometric peer rankings and eye-hand coordination. Between peer rankings and rankings on degree of emotional disturbance there was a positive relationship. Those accepted by their peers tended to be considered less disturbed while isolated children tended to be considered as more disturbed.—*V. S. Sexton.*

7031. Reik, Theodor. **Masochism in sex and society.** New York: Grove, 1962. vi, 439 p. \$.95 (paper).—A pocketbook edition, originally published in 1941 as *Masochism in Modern Man*.—*E. Borrowman.*

7032. Sharma, P. N. **A study of detection and treatment of behavior disorders in children.** *Indian J. soc. Wk.*, 1962, 23 (1), 25-29.—A plan for forming a table of behavior norms to distinguish the divergent from the normal is discussed. So far the study has been confined to children from a locality which has slum houses and mainly comprises the low income group.—*R. Schaeff.*

Alcoholism

7033. Almeida, Manuel. **Investigación clínica sobre la evolución del alcoholismo.** [Clinical in-

vestigation on the evolution of alcoholism.] *Rev. Neuro-Psiquiat.*, 1962, 25(1), 98-123.—A study of the development of alcoholism in 181 patients of the Anti-alcoholic Dispensary in Lima, Peru. The frequency and age of onset of different symptoms are considered, taking Jellinek's nomenclature as a frame of reference. In this sample of patients, alcoholism starts around the age of 25; loss of control occurs about age 28; between the ages of 31 and 33 there emerge such manifestations as abstinence and withdrawal symptoms, blackout, etc.; between 34 and 35 tolerance decreases. The author also presents a study of 763 cases of alcoholic psychosis and finds that the psychosis appears at the average age of 43. The findings are compared with those of other studies of alcoholism.—*R. M. Frumkin.*

7034. Clancy, John. (Psychopathic Hosp., Iowa City) Procrastination: A defense against sobriety. *Quart. J. Stud. Alcohol*, 1961, 22(2), 269-276.—The procrastination defense is described in terms of the drinker's decision to abstain from alcohol without setting a date. Denials, rationalizations, and projections permit him to justify further drinking and avoid the conflict of whether to drink or not to drink. The author is of the opinion that a determination of this procrastination defense and its supporting rationalization system should be made at the outset of psychotherapy; and if present, it should be dealt with before other areas of uncovering or reeducation are undertaken.—*D. E. Walton.*

7035. de Saugy, Daisy. L'alcoolique et sa femme (fin). Etude psychosociale et statistique sur les conditions de leur développement individuel et de leur vie en commune. [The alcoholic and his wife: A psychosocial and statistical study of the conditions of their individual development and their life together.] *Hyg. ment.*, 1962, 51(4), 145-201.—Continuation (see 37: 5429) of an extensive analysis of married couples, one of whom is alcoholic. Characteristics of the wives are discussed in this portion. More than 1/2 of the 100 couples studied reveal that the wife was the dominant figure in the marriage from its beginning. Many of the wives admitted frigidity from the beginning of the marriage, particularly in the psychiatric group. (72 ref.)—*W. W. Meissner.*

7036. Mulford, Harold A., Miller, Donald E. (State U. Iowa) Public definitions of the alcoholic. *Quart. J. Stud. Alcohol*, 1961, 22(2), 312-320.—This study is based on replies from 1185 Iowans to a questionnaire concerning drinking habits. Respondents were evenly divided between viewing the alcoholic as sick or morally weak. In answer to the question of what they thought they would do about handling their own drinking problem or one in their family, 25% indicated they would try to solve it within the family, 61% indicated they would first try to solve it in the family and then if necessary seek outside help, and 12% indicated they would seek outside help. The educational task should promote the medical view as well as reduce the apparent moral stigma associated with drinking problems.—*D. E. Walton.*

7037. Nichols, Sarah; Pike, Alan W., Richter, Max H., & Sculthorpe, William B. (Northport VA Hosp., N. Y.) Foster-home placement of psychotic patients with histories of problem drinking. *Quart. J. Stud. Alcohol*, 1961, 22(2), 298-311.—22

of 89 foster-care cases were men with histories of problem drinking and a hospital diagnosis of psychosis. Using completion of a year's trial visit as the criterion of success, 16 cases succeeded and 6 failed. No differences were found between this group and the other 67 foster-care cases in the ratio of successful adjustment.—*D. E. Walton.*

7038. Soto Yarritu, F., & Figuerido Santurtan, J. A. (Pamplona, Spain) Aplicación del Test de Szondi en alcohólicos. [Application of the Szondi Test to alcoholics.] *Rev. Psicol. gen. apl.*, 1961, 6 (Whole No. 58), 273-286.—10 complete profiles are administered to 72 ill alcoholics, compared with 6 ill controls and prior results in the literature. Authors conclude that from the point of view of instinct psychology, alcoholics are recognizable as a special sort of psychopath.—*E. B. Page.*

7039. Vallet, R. Bases de pathogénie biochimique et traitement des délires alcooliques aigus. [The bases of biochemical pathogenesis and treatment of acute alcoholic deliria.] *Encephale*, 1962, 51(4), 361-382.—Hydroelectrolytic disturbances, disturbances in energy metabolism, avitaminoses, intermediate metabolism, and parenchymatous shock (liver, kidney, heart, endocrines, and nervous system) are discussed in relation to delirium tremens. Therapeutic indications are considered for metabolic and drug interference.—*W. W. Meissner.*

Sex Deviation

7040. Fox, J. R. (Exeter U.) Sibling incest. *Brit. J. Sociol.*, 1962, 13(2), 128-150.—An exploration of hypotheses (as suggested by the theories of Westermarck and Freud) on incestuous behavior in siblings of the opposite sex. Central to these hypotheses is the factor of propinquity, that is, physical (bodily, tactile) interaction, during sexual immaturity, especially in terms of resultant motivations and associated sanctions. Intracultural evidence was used to test hypotheses. Incestuous behavior patterns in an Israeli Kibbutz and among the Chiricahua Apache, Tallensi, Trobriand Islanders, Pondo, Mountain Arapesh, and Tikopia are reviewed. The single resulting hypothesis is as follows: "The intensity of heterosexual attraction between co-socialized children after puberty is inversely proportionate to the intensity of heterosexual activity between them before puberty." It is suggested that this hypothesis supports the general thesis that the amount of propinquity between any close relatives is inversely related to the amount of incestuous behavior. Thus, father-daughter relations show the greatest actual occurrence and mother-son the least.—*R. M. Frumkin.*

7041. Krich, A. M. (Ed.) The homosexuals: As seen by themselves and 30 authorities. New York: Citadel, 1962. 342 p. \$1.95 (paper).—A paperback edition of a book originally published in 1954.

7042. McCord, William; McCord, Joan, & Verden, Paul. (Stanford U.) Family relationships and sexual deviance in lower class adolescents. *Int. J. soc. Psychiat.*, 1962, 8(3), 165-179.—The evidence suggests that adolescent sexual deviation results from a familial environment characterized by authoritarian punishment of heterosexual behavior and certain experiences which weaken the child's desire to adopt the masculine role (as it is represented in the father's example). Other variables in the child's en-

vironment direct the unique form of sexual deviation. Specifically, it appears that: (a) A feminine identification, homosexual in nature, occurs when a child's father is absent or a rejecting person forces the child to view masculinity as an unattractive role. (b) Sexual perversion, untinted by homosexuality, results when parental behavior intensifies the child's sexual conflicts and, thereby, his sexual drive. (c) Total repression of sexuality occurs when parents consistently punish the child's sexual urges.—*R. M. Frumkin.*

7043. Wiedeman, G. H. Survey of psychoanalytic literature on overt male homosexuality. *J. Amer. Psychoanal. Ass.*, 1962, 10(2), 386-409.—Before Freud homosexuality was mainly considered as constitutional. In 1905 Freud stated that the homosexual leaves the early strong mother fixation, identifies with mother, and then takes himself as his love object. In 1915 Freud discussed archaic mechanisms and aggressive impulses in homosexuality. Since that time structural concepts and ego psychology have been applied more and more to homosexuality, e.g., deficient neutralization of drives and libidinalization of certain defenses. More reports are needed on classification, transference, course, and results with homosexual patients. Psychoanalytic research is moving in the direction of increasing our understanding of homosexuality.—*D. Prager.*

Drug Addiction

7044. Chessick, Richard D., Loof, David H., & Price, Hazel G. (United States Public Health Hosp., Lexington, Ky.) The alcohol-narcotic addict. *Quart. J. Stud. Alcohol*, 1961, 22(2), 261-268.—Using interviews by a psychiatric team, 29 persons who changed from addictive drinking to narcotic addiction were compared with a control group matched for race, sex, and area of residence. The shift from alcohol to intravenous opiates was explained in these psychodynamics: "In general, there was a loss of psychic equilibrium due to the loss of a love object on whom they were dependent for 'mother love.' This led to an increase in aggressive fantasies which threw the psychic structure off balance by threatening the ego with disintegrating amounts of violent affect changed with magical omnipotent power. The shift . . . represented an additional regressive step when the patient was unable to gain stability through previous defenses, and warded off deep repression or paranoid psychosis."—*D. E. Walton.*

7045. Eldridge, William B. Narcotics and the law: A critique of the American experiment in narcotic drug control. New York: New York Univ. Press, 1962. xiv, 204 p. \$5.00.—This book is an evaluation of America's controversial program of narcotics control, a program based on the assumption that increasingly severe penalties constitute an adequate solution to the problem. The author finds that statistics are so unreliable that there is uncertainty in regard to the scope of the problem as well as the results of the program. Recommendations are made for modification of present practices entailing realignment of responsibilities between the professions involved. The appendix includes state penalties for narcotics violations.—*S. Yudin.*

7046. Lawton, M. Powell. (Norristown State Hosp.) Psychosocial aspects of cigarette smoking.

J. Hlth. hum. Behav., 1962, 3(3), 163-170.—The problems of why people smoke and why it is so difficult to stop smoking are highlighted by a summary of research. "Initiation of smoking is seen as largely a social and psychological phenomenon, mediated by the mechanisms of curiosity, imitation, identification, status striving, and rebellion. The continuance of habitual smoking on the other hand, is seen as an even more complex phenomenon." (26-item bibliogr.)—*L. A. Ostlund.*

7047. Maurer, D. W., & Vogel, V. H. Narcotics and narcotic addiction. (2nd ed.) Springfield, Ill.: Charles C Thomas, 1962. xii, 339 p. \$9.00.—Opiates and their synthetic equivalents, addicting nonopiate sedatives, and stimulant drugs are used by addicts, neither to induce sleep nor to reduce the need for it, but for the sense of euphoria and drug intoxication. No set of criteria can identify a narcotic addict on sight. Drug addiction is a symptom of disease rooted in social and economic conditions which tend to create dissatisfaction, unhappiness, conflict, tension, and strife in the minds and souls of human beings. The individual may consciously or unconsciously seek relief in neurosis, psychosis, or in drugs. The only permanent cure is psychiatric treatment; the surest prevention is widespread mental hygiene.—*S. M. Dominic.*

Suicide (& Homicide)

7048. Taragano, Fernando. Psicodinamismos del suicidio diurno y nocturno en el arterioescleroso cerebral. [The psychodynamics of day and night suicide in cerebral arteriosclerosis.] *Acta psiquiat. psicol. Argent.*, 1962, 8(1), 33-36.—Diurnal suicide is characterized by: (a) conscious intention of suicide; (b) serious psychotic process; (c) unconscious motivation of aggression directed toward internal persecuting objects, located within the mental space or in the body image; and (d) experience of profound internal division producing regression to levels of magical thinking, omnipotence, and a manic denial of death. Nocturnal suicides are characterized by: (a) no intention of suicide without flight, (b) less serious psychosis manifested in confuso-oniric states, and (c) the suicide itself should be considered more accurately as an accidental complication. The possibility of mixed syndromes is discussed.—*W. W. Meissner.*

CRIME & DELINQUENCY

7049. Duffy, Clinton T., & Hirshberg, Al. 88 men and 2 women. Garden City, N. Y.: Doubleday, 1962. 258 p. \$4.50.—The experiences of the senior author, who presided over many executions while warden of San Quentin Prison. A vigorous attack on the institution of capital punishment is made.—*H. M. Cohen.*

7050. Henrikson, Lars V. (Augusta State Hosp., Me.) Risk-taking and the behavior disorders. *Correct. Psychiat. J. soc. Ther.*, 1962, 8(3), 133-143.—Criminal and immoral behavior is viewed as part of a pattern of compulsive gambling, i.e., a pattern of self-exposure to unnecessary risk and ultimate loss. The author concludes that for the compulsive gambler, the unsuccessful habitual criminal, and the chronic emotionally ill, behavior is directed toward the unconscious objective of losing. (21 Ref.)—*L. R. Witt.*

7051. Herbert, W. L., & Jarvis, F. V. **Dealing with delinquents.** New York: Emerson, 1962. 208 p. \$3.75.—Treatment of the delinquent in his own home environment is considered from the viewpoint of the social worker in relation to the feelings of the delinquent (juvenile or adult), his family, and society. Delinquency is a symptom of emotional disturbance, and hence is to be treated primarily by relationship therapy. The emotional interactions of the social worker, parents, and society are dealt with in detail. Techniques of interviewing, recording, and home visiting are handled in a practical manner. Work with the delinquent is seen as challenging, difficult, and not always rewarding.—S. M. Dominic.

7052. Lewicki, Andrzej. **Psychologiczna problematyka resocjalizacji więźniów.** [Psychological problems in the resocialization of prisoners.] *Psychol. wych.*, 1962, 5(3), 290-305.—The main problem confronting prison psychologists is one of appropriate diagnostic procedures. The lack of an adequate "scale of socialization" hampers the appraisal of the degree of progress being made in the rehabilitation of a prisoner. Politeness, kindness, and helpfulness are key factors in resocializing a prisoner.—H. Kaczkowski.

7053. Mizushima, Keiichi, & Jenkins, Richard L. (Tokyo Child Guidance Clinic) **Treatment needs corresponding to varieties of delinquents.** *Int. J. soc. Psychiat.*, 1962, 8(2), 91-103.—This study of juvenile delinquents in Tokyo suggests that: (a) psychopathic traits, identification with delinquency and crime, and habitual delinquency are unfavorable for successful treatment; (b) authoritarian treatment is likely to do more harm than good; and (c) a therapeutic kind of treatment is generally best. There seem to be 2 important causes for delinquent behavior. The adaptive delinquent is typically a product of normal motivation, parental neglect and exposure to delinquent patterns. The maladaptive delinquent is typically a product of extreme frustration and, specifically, parental rejection and family conflict.—R. M. Frumkin.

7054. Panakal, J. J. **Juvenile delinquency.** *Indian J. soc. Wk.*, 1961, 22(3), 263-266.—A radio talk tracing the history of legislation pertaining to juvenile delinquency and reviewing existing programs.—R. Schaefer.

7055. Reifen, David. (Tel Aviv, Israel) **Protection of the child in Israeli courts in sex assault cases.** *J. Jewish communal Serv.*, 1962, 38(4), 351-360.—A new Israel law aimed at protecting children under age 14 who are victims and witnesses of sex offenses is reviewed. The most significant innovations of this new law are: (a) provision that a child under 14 years of age who was involved in a sex offense may be interrogated only by a person appointed for this specific purpose; (b) the child concerned may not give evidence in court unless permitted to do so by the youth interrogator, and (c) the corroborating evidence is necessary for conviction.—M. A. Seidenfeld.

7056. Rothstein, Edward. (City Coll. New York) **Attributes related to high social status: A comparison of the perceptions of delinquent and nondelinquent boys.** *Soc. Probl.*, 1962, 10(1), 75-83.—A comparative study of the way 163 delinquent and 439 nondelinquent teenaged boys perceive attributes

related to high social status. Nondelinquent boys place the greatest stress on loyalty and trustworthiness as contributing to high social status. A much higher proportion of delinquent boys than nondelinquent boys perceive toughness, popularity with girls, fearlessness, notoriety, power to get revenge, shrewdness, wealth, influential contacts, and ancestry as contributing to high social status; however, not one of these attributes is given heavy weight in status rating even by delinquents. Differences between delinquent and nondelinquent boys should be considered relative rather than absolute since they were not attributable to socioeconomic status.—R. M. Frumkin.

7057. Seeley, John R. (York U., Toronto, Canada) **Guidance and the youth culture.** *Personnel Guid. J.*, 1962, 41(4), 302-310.—"We face essentially now, for all children very nearly, what had to be faced for lower-class children in reference to delinquency a generation ago: the fact that, without access to the all-coercing, and all-rewarding structure of the gang, the likelihood of securing any sensible change in delinquent attitudes and activities is as close to zero as anyone could desire."—S. Kavruck.

7058. Shulman, Harry M. (City Coll. New York) **Juvenile delinquency in American society.** New York: Harper, 1961. xi, 802 p. \$8.00.—Chapters are devoted to a wide range of specific topics, such as: "Minority Groups," "Intelligence and Delinquency," and "Juvenile Training Schools and Reformatories." Part II on "Fields, Methods, and Problems of Scientific Delinquency Research" is a concise development of causal theories.—R. W. Deming.

7059. von Hentig, Hans. (U. Bonn, West-Germany) **Das Verbrechen: II. Der Delinquent im Griff der Umweltkräfte.** [Crime: II. The power of the environment over the delinquent.] Berlin, Germany: Springer, 1962. 524 p. DM 59.—Social factors are ambivalent, they prevent and they foster crime. Numerous statistics and excerpts from famous cases illustrate hypotheses on the influence exerted on crime by inflation, economic depression, war, social organizations and groups (including the family groups), and by news and entertainment media. The victim also plays an important role in the influence of the environment upon crime. (This is volume 2 of a demographic trilogy on crime.)—R. Kaelbling.

7060. Wendt, Miriam, & Gerjuoy, Herbert. (Educational Testing Service) **Work attitudes of ward attendants for the criminally insane.** *J. Psychol.*, 1963, 55(1), 43-47.—The Attendants' Attitude Questionnaire (AAQ), with an attached personnel information blank, was administered to ward attendants at the Lima (Ohio) State Hospital for the criminally insane. A significant multiple correlation was obtained, with ward type, age, education, length of hospital service, and length of ward service as the predictor variables, and AAQ scores as dependent variable. However, only age and length of hospital service were predictor variables with significant regression weights. Attendants' attitudes did not depend upon experience on a particular ward type. Considering the low magnitude of the significant multiple correlation, the practical usefulness of the significant predictor variables was questioned. Over-all, attendant morale was much lower at Lima State Hospital than it was found to be by Gerjuoy, et al. (1962) at a general psychiatric hospital.—Author abstract.

PSYCHOSES

7061. Creak, E. Mildred. (Hosp. Sick Children, London, England) **Childhood psychosis: A review of 100 cases.** *Brit. J. Psychiat.*, 1963, 109 (Whole No. 458), 84-89.—Among the 100, strictly selected according to the 9 criteria of childhood psychosis of the *British Medical Journal* 1961 report, were 12 epileptics and 2 cases with cerebral lipidosis. Therapy with the noncommunicating child is difficult.—*W. L. Wilkins.*

7062. Ehrentheil, Otto F., & Davis, Edward T. (VA Hosp., Boston, Mass.) **Degree of fixation of thought content in relation to withdrawal versus nonwithdrawal in hospitalized mental patients observed over 30 years.** *J. nerv. ment. Dis.*, 1962, 135 (5), 455-459.—The hypothesis was tested that in chronic mental patients "the degree of change in present thought content from that of 30 years earlier (at time of admission) is in reciprocal relationship to the degree of withdrawal from environment." Results from a study of 135 patients support the hypothesis.—*N. H. Pronko.*

7063. Perry, John W. (U. California Medical School, San Francisco) **Reconstitutive process in the psychopathology of the self.** *Ann. N. Y. Acad. Sci.*, 1962, 96(3), 853-873.—Psychosis involves a total disruption of the self and its imagery provides insight into the self. The sequence of images among 18 schizophrenics followed a characteristic course, which suggests the archetypes of the sacred kings. Psychotics have the same relations to archetypes as normals but are overwhelmed by them. The relation between the personal and archetype self determines the course of the schizophrenic process. The function of therapy is to restore the capacity for love. (88 ref.)—*B. S. Aaronson.*

7064. Slater, Eliot; Beard, A. W., & Glithero, Eric. (Middlesex Hosp., London, England) **The schizophrenia-like psychoses of epilepsy.** *Brit. J. Psychiat.*, 1963, 109 (Whole No. 458), 95-150.—69 patients with symptomatic schizophreniform psychoses of purely epileptic causation, genetically distinguishable from the nuclear schizophrenias, were followed up for a mean time of 7.8 years. While social interests for those out of hospital were severely impaired, personal and work records were fairly good for almost half. This is an illness with a stormy course leading to general impairment of an organic type affecting both intellectual functions and affective aspects of personality.—*W. L. Wilkins.*

7065. Thorne, Frederick C. (Journal Clinical Psychology, Brandon, Vt.) **Self-consistency theory and psychotherapy.** *Ann. N. Y. Acad. Sci.*, 1962, 96(3), 877-888.—Disorders of self-functioning may be primary disorders of the self or arise from psychopathology at other levels of personality organization. In a study of 100 psychiatric patients, 78 complained of fear of disintegration of self function, 67 of loss of impulse control, 61 of disturbing mental contents, 57 of excessive preoccupation with self awareness, 38 of feelings of self depreciation, 31 of fears of what others might think of one, and 30 of preoccupation with ego competition. Many of these factors can be dealt with directly in psychotherapy in terms of self-consistency theory.—*B. S. Aaronson.*

7066. Wilcox, Katherine W. (Traverse City State Hosp., Mich.) **The pattern of cognitive reorientation following loss of consciousness.** *Pap. Mich. Acad. Sci. Arts Lett.*, 1956, 41, 357-366.—Observations were made on 41 psychotic female patients. The process of cognitive reorientation during recovery following a period of loss of consciousness due to electroconvulsive treatment involves first awareness of the self and "is nearly synonymous with giving one's own name. Correct time orientation is the last to return. There is evidence in the literature that recovery of neurological function and perception during return of consciousness follow a pattern in which the latest phylogenetic developments are restored after the more primitive functions. The post-convulsive sequence of cognitive reorientation as found in this experimental study follows the pattern of the ontogenetic development of orientation in the child."—*S. J. Lachman.*

Schizophrenia

7067. Baxter, James C., Arthur, Sonya; Flood, Constance G., & Hedgepeth, Betty. (U. Kentucky Coll. Medicine, Lexington) **Conflict patterns in the families of schizophrenics.** *J. nerv. ment. Dis.*, 1962, 135(5), 419-424.—Both parents of a group of 12 male and of 6 female patients were interviewed and tested in an effort to evaluate intrafamilial variables. Results indicate that "reliable differences exist between groups of male and female schizophrenics, while the relative amounts of conflict in the two groups can be considered comparable."—*N. H. Pronko.*

7068. Bryant, Arthur Russell. (U. Utah) **An investigation of process-reactive schizophrenia with relation to perception of visual space.** *Dis. sert. Abstr.*, 1962, 22(7), 2460-2461.—*Abstract.*

7069. Davidson, S. I. **Auto-enucleation of the eye: A study of self-mutilation.** *Acta psychother. psychosom.*, Basel, 1962, 10(4), 286-300.—An acutely catatonic schizophrenic male patient enucleated his right eye and made other self-mutilating attempts. Without satisfactory father-relationship and with an intense mother-relationship, incestuous drives released self-punishing behavior. Psychotherapy drugs, and surgery proved equally ineffectual.—*G. Rubin-Rabson.*

7070. Flitsos, George V. (Purdue U.) **Schizophrenics' vs. normal's learning of low vs. high association paired associates.** *Dissert. Abstr.*, 1962, 22(7), 2463.—*Abstract.*

7071. Gromoll, Henry Fred, Jr. (U. Illinois) **The process-reactive dimension of schizophrenia in relation to cortical activation and arousal.** *Dis. sert. Abstr.*, 1962, 22(10), 3741.—*Abstract.*

7072. Herron, William G. (St. Bonaventure U.) **The process-reactive classification of schizophrenia.** *Psychol. Bull.*, 1962, 59(4), 329-343.—Research on the process-reactive classification of schizophrenia indicates there are 2 groups of schizophrenic patients differing in prognostic and life-history variables. It is also possible to demonstrate differences between the 2 groups in physiological measures and psychological dimensions. The evidence does not support a process-organic vs. a reactive-psychogenic formulation of schizophrenic etiology.—*W. J. Meyer.*

7073. King, H. E. (U. Pittsburgh School Medicine) **Reaction-time as a function of stimulus in-**

tensity among normal and psychotic subjects. *J. Psychol.*, 1962, 54(2), 299-307.—Simple lift reaction-time responses to stimuli of varied intensity have been observed among normal and schizophrenic Ss to examine features of the typically retarded psychomotor response of psychotic Ss. 30 normal and 30 chronic schizophrenics performed RT measures at 3 levels of auditory stimulation following extended practice. The observation of a marked discrepancy in group mean latency and variation was replicated. Both groups showed decreases in latency and intrasubject variability to stimuli of greater intensity, being reactive to the same relative extent. The greater absolute reduction in latency by psychotic Ss appears to be a consequent of the initially longer latencies of this group. The findings are related to the ratio of simple to disjunctive RT among comparable subject groups.—*Author abstracts.*

7074. Kodman, F., Jr., Griffith, R., & Sparks, C. (Lexington, Ky.) Wakefulness in catatonic schizophrenia. *Confin. psychiat.*, 1962, 5(4), 189-195.—Measurements of auditory threshold during deep sleep were sought from a sample of catatonic schizophrenic patients. A deep sleep pattern was secured from 1 patient and later replicated. Whereas Kleitman et al. found the auditory threshold for normals during sleep to be elevated approximately 40 db. above audiometric zero, this single patient, on 2 different occasions, showed an elevation of 90 db.—*E. W. Eng.*

7075. Malis, G. YU. Research on the etiology of schizophrenia. (Trans. by Basil Haigh) New York: Consultants Bureau, 1961. xi, 195 p. \$9.50.—This volume, with a preface by Hudson Hoagland, is primarily a report of the author's research on his hypothesis that schizophrenia is produced by a virus. Malis was able to take the position that some of the work on possible endogenous toxic factors is consistent with his hypothesis. More specifically, he tried to determine if a virus or the protein coat of a virus was the source of the toxic factor. The research program is incomplete in that there was no demonstration of the infectious nature of the proposed virus. Citation of European and American literature prior to 1940 is extensive, but there are few such references later than 1940.—*C. L. Winder.*

7076. Marks, John; Stauffacher, James C., & Lyle, Curtis. (Mental Health Research Inst., Ft. Steilacoom, Wash.) Predicting outcome in schizophrenia. *J. abnorm. soc. Psychol.*, 1963, 66(2), 117-127.—Schizophrenic patients leaving a VA hospital for independent life in the community were followed up for a year after departure. They had been rated on ward and at activities, had been interviewed, and had been extensively tested. By 1 year 33 of 78 had returned, but there was little difference in the predeparture measures or in a 1-month home visit between these and those who stayed out. For those staying out, 35 of 111 predictors correlated significantly with at least 1 of 2 year-end adjustment criteria. Social assets predicted no better positively (and may have predicted worse), than psychopathology predicted negatively. Demographic variables, such as time since 1st mental hospitalization, predicted at least as well as tests; and factorially pure test scales predicted no better than empirical scales. (33 ref.)—*Journal abstract.*

7077. Meehl, Paul E. (U. Minnesota) Schizotaxia, schizotypy, schizophrenia. *Amer. Psychologist*, 1962, 17(12), 827-838.—"I hypothesize that the statistical relation between schizotaxia, schizotypy, and schizophrenia is class inclusion: All schizotaxics become on all actually existing social learning regimes, schizotypic in personality organization; but most of these remain compensated. A minority, disadvantaged by other . . . constitutional weaknesses, and put on a bad regime by schizophrenogenic mothers . . . are thereby potentiated into clinical schizophrenia. What makes schizotaxia etiologically specific is its role as a necessary condition. . . . It is my strong personal conviction that . . . schizophrenia, while its content is learned, is fundamentally a neurological disease of genetic origin."—*S. J. Lachman.*

7078. Rosenberg, Larry. (U. Chicago) Social status and participation among a group of chronic schizophrenics. *Hum. Relat.*, 1962, 15(4), 365-377.—Participation in a "patient council" was analyzed. The following hypotheses were formulated: (a) as the degree of mental disorder increases, the salience of socio-economic status decreases as a factor in role differentiation; (b) the more totalistic an institution, the less relevant will socio-economic status be as a factor in the role differentiation of its inmates; (c) degree of participation in a group is a function of the relative status increment resulting from such participation; (d) participation by low-status members will tend to increase as requirements of literacy and verbal fluency are diminished; (e) low-status persons will participate to a greater extent in a group with an "open" opportunity structure; (f) as the degree of sociability increases, the salience of status characteristics as factors in role differentiation decreases. (29 ref.)—*W. W. Meissner.*

7079. Rosenthal, David. (National Inst. Mental Health, Bethesda, Md.) Familial concordance by sex with respect to schizophrenia. *Psychol. Bull.*, 1962, 59(4), 401-421.—"The literature regarding concordance rates with respect to schizophrenia among relatives of both sexes is reviewed. These rates are generally found to be higher for female than male pairs and higher for same-sexed than opposite-sexed pairs of relatives in primary family groups, but not among collateral relatives. The possible role of sampling errors, genetic contributions, and psychological factors in generating such sex-concordance ratios is examined."—*W. J. Meyer.*

7080. Searles, H. F. The differentiation between concrete and metaphorical thinking in the recovering schizophrenic patient. *J. Amer. Psychoanal. Ass.*, 1962, 10(1), 22-49.—Concrete or undifferentiated thinking of severe schizophrenics can exist only in proportion as there is fluidity of the ego boundaries and can be resolved only in proportion as these boundaries become firmly established with therapy. Such boundaries become established by degrees as the patient becomes able to face the intense and conflictual emotions against which the schizophrenic illness system was designed to shield him. The dissolution of ego boundaries is an energetic defense mechanism that is part of the schizophrenic process. Etiology, treatment course, and technique of this schizophrenic thought disorder are discussed.—*D. Prager.*

7081. Spohn, Herbert E., & Wolk, William. (VA Hosp., Montrose) Effect of group problem solving experience upon social withdrawal in chronic schizophrenics. *J. abnorm. soc. Psychol.*, 1963, 66(2), 187-190.—It was hypothesized that chronic schizophrenics exposed to sustained group problem solving experience would tend to improve their levels of social participation on criterion tasks socially more challenging and complex. It was further hypothesized that such improvement would generalize to task performance with total strangers and to social behavior on the ward. All predictions except the one about ward behavior were confirmed by experimental findings with 32 chronic schizophrenic patients. It is suggested that sustained social experience in situations which elicit social participation permit factors to become operative which reduce anxiety associated with socially more challenging, complex situations and thus facilitate participation in such situations.—*Journal abstract.*

7082. Staritsyn, A. S. (Psychoneurological Research Inst., Odessa, USSR) Osobennosti sosudistykh uslovykh i bezuslovykh refleksov u bol'nykh shizofreniei na raznykh etapakh razvitiia zabolnavaniia. [Characteristics of vascular CR and UR in schizophrenics at various stages of the disease development.] *Zh. vyssh. nervn. Deiatel.*, 1962, 12(4), 593-601.—Ss were 43 catatonics (18-25 yr.) and 57 paranoid schizophrenics (26-40 yr.), sick between 3 mo. and more than 3 yr. US was cold water, CS were sounds and words. Recordings were done by means of plethysmograms. Catatonics during the initial period of the disease, showed enhanced reflex excitability in the zones of the cortical and subcortical control of the vascular system. This decreased with the protraction of the disease. Paranoids schizophrenics exhibited at early stages inhibition of the CR and UR. As the disease continued, the inhibition weakened and the excitatory processes increased.—*A. Cuk.*

7083. Syřiřtová, E. (Charles U., Prague, Czechoslovakia) Historický přehled psychoterapie schizofrenního onemocnění. [Historical survey of psychotherapy of schizophrenia.] *Českoslov. Psychol.*, 1962, 6(1), 79-94.—An outline of the historical development of ideas, theories, and practices of psychotherapy of schizophrenia. (Russian & English summaries, 57 ref.)—*V. Bricháček.*

7084. Tate, George Thomas. (U. Kentucky) An Experimental study of two aspects of schizophrenic interpersonal relationships. *Dissert. Abstr.*, 1962, 22(11), 4088.—*Abstract.*

7085. Weakland, John H., & Fry, William F. Letters of mothers of schizophrenics. *Amer. J. Orthopsychiat.*, 1962, 32(4), 604-623.—Several letters to schizophrenic patients from their mothers are presented. The letters all exhibit pervasive patterns of incongruent communication, alternating come-but-go or affection-but-hostility message. There is a pattern of concealed incongruence between closely related messages. No statement is allowed to stand clearly and unambiguously. The type of communication and its effect on the recipient agree closely with the concept of the double bind.—*R. E. Perl.*

7086. Zlotowski, Martin, & Bakan, Paul. (Michigan State U.) Behavioral variability of process and reactive schizophrenics in a binary guessing

task. *J. abnorm. soc. Psychol.*, 1963, 66(2), 185-187.—Process and reactive schizophrenics differ in run producing behavior when attempting to generate a random binary series of heads and tails. Reactive schizophrenics manifest more response variability than process schizophrenics. Evidence for this is a lower correlation for reactives between number of runs in the 1st and 2nd ½ of a series of 300 binary responses. It is of interest to note that reactives are more variable than a normal undergraduate sample whereas process schizophrenics are not (see 34: 7320). The process group produced significantly more runs than the reactive group. This difference appears due to a greater tendency for process schizophrenics to produce runs of 1 (simple alternations), a form of response stereotypy.—*Journal abstract.*

Affective Disorders

7087. Prange, Arthur J., Jr., & Vitols, M. M. (U. North Carolina School Medicine) Cultural aspects of the relatively low incidence of depression in southern Negroes. *Int. J. soc. Psychiat.*, 1962, 8(2), 104-112.—The southern Negro has available to him certain characteristic defenses that tend to mitigate loss of prestige, self-esteem, real goods, and love objects. Basic attitudes include stoicism and subtle defiance. His fundamentalistic religion insists that he actively mourn his losses. The extended family relationship is such that he can share his losses and replace his lost objects. The fact of his oppression, and his sensitivity to it, facilitate the unconscious selection of projection, rather than introjection, as a defensive technique. Depression in the United States could be called the white man's malady. As the Negro comes to share more fully in the white man's culture, he will also share his malady.—*R. M. Frumkin.*

Physiological Correlates

7088. Rubin, Leonard S. Patterns of adrenergic-cholinergic imbalance in the functional psychoses. *Psychol. Rev.*, 1962, 69(6), 501-518.—Effective "adjustments to emergency situations require a maximal, generalized sympathetic response; to attain a maximal level of sympathetic activity, it is not only necessary that increased levels of adrenergic outflow follow the emergency but that the level of cholinergic activity decrease; the neurohumoral dysfunctions that characterize the psychoses represent significant departures from the adrenergic-cholinergic states that characterize the normal individual at rest and during stress; and the varieties of dysfunction represent discrete levels of activity of interacting adrenergic and colinergic mechanism. That is, each pattern of neurohumoral imbalance represents an impairment of function of either the adrenergic or colinergic mechanism or both."—*C. T. Morgan.*

PSYCHONEUROSES

7089. García-Barros Bernabeu, Enrique. (Madrid, Spain) Experiencias de dibujo automático en neurosis. [Cases of automatic drawing in neurosis.] *Rev. Psicol. gen. apl.*, 1961, 16(Whole No. 59), 526-537.—16 neurotic Ss were instructed to read literary works in a loud voice while their right hand held pencil against unseen paper. Later drugs were used for greater disinhibition. 4 Ss produced "auto-

matic, unconscious" drawings with content unrelated to reading material but closely related to their individual anguish or guilt.—E. B. Page.

7090. Laforgue, René. *De la nevrose familiale*. [Family neuroses.] *Evolut. psychiat.*, 1962, 27(3), 313-325.—Family neuroses result from a mental contagion that the individual contracts from his family or social milieu. This theme is elaborated historically and illustrated by case studies. Pursuing the viewpoint of Pavlov and renouncing Freud, the author believes that the self of each individual in the family becomes conditioned by the family milieu to the point where he can no longer function effectively. Concerning treatment, the author states that it is best to work with one individual up to a certain point, and then to treat the other members of his family.—L. A. Ostlund.

7091. Pankow, Gisela. *Das Körperbild bei einem entwurzelten Wahnkranken*. [The body image of an uprooted delusional patient.] *Psyche, Stuttgart*, 1962, 16(7), 440-463.—The psychoanalysis of a previously psychotic African of partial European parentage and background. In contrast to the classical neurosis technique, neither object relations nor interpretations of interpersonal features were stressed, but the aim was to provide the patient with a body he could live in. To this end the therapist concentrated on filling in the gaps in the patient's experienced body image.—E. W. Eng.

PSYCHOSOMATICS

7092. Brown, L. B. Social and attitudinal concomitants of illness in pregnancy. *Brit. J. med. Psychol.*, 1962, 35(4), 311-322.—Ss were 148 consecutive primiparae, who were interviewed and given an inventory including a check-list of body symptoms. "Whether or not pregnancy is found difficult, a time of sickness or unpleasant in some other way appears to depend upon attitudinal factors, rather than on actual experiences—except that experiences in the nuclear family appear to lay a basis for later illness during pregnancy."—C. L. Winder.

7093. Cain, Jacques. (359, rue Paradis, Marseille, France) *Essai de comprehension psycho-somatique de l'état allergique*. [The psychosomatic concept of allergy.] *Evolut. psychiat.*, 1962, 27(3), 339-363.—A historical resume of psychosomatic concepts of allergy indicates diverse theories. Successively, the emotional origin of allergic crises was highlighted by Slaver, Flower, Miller, and Baruch. Next, neurophysiological mechanisms were studied by Reilly, Ziwar, and Courchet. More recently, research focused upon psychoanalytic assessment of the effect of maternal rejection and the allergic type of relationships with objects. The latest phase explores the parallel between emotion, hysteria, and psychosomatics. "It sets the problem on the level of the mother's desire envisaged as a structuring factor of the child's organic disease."—L. A. Ostlund.

7094. Carballo, J. R. (Madrid, Spain) *Influencia de las ideas psicósomáticas en la medicina interna*. [The influence of psychosomatic concepts in internal medicine.] *Rev. Psicol. gen. apl.*, 1961, 16 (Whole No. 60), 765-775.—"The strange thing is not the resistance to or incomprehension of psychosomatic medicine but, to the contrary, how it is able in spite

of all to develop with growing vigor." (20 ref.)—E. B. Page.

7095. Čermák, M., & Dornič, S. (Liečebna pre tuberkulózu, Štola) *Experimentálny výskum emocionálnych reakcií u chorých na tuberkulózu*. [An experimental research of emotional reactions of TB patients.] *Psychol. Stud., Bratislava*, 1961, 3, 195-210.—A reflection of tuberculosis in the emotional sphere of patients was examined by an association experiment, simultaneously recording breathing and intentional and spontaneous motor reactions. The most emotionally effective words were those which did not refer directly to the disease but to its personal and social consequences for the patient. (Russian & English summaries)—V. Bricháček.

7096. Engel, George L. *Fainting*. (2nd ed.) Springfield, Ill.: Charles C Thomas, 1962. x, 196 p. \$7.50.—This 2nd edition has been completely rewritten, and the types of syncope have been reclassified. Physical etiology of fainting is discussed in detail separately for peripheral circulatory inadequacy and cardiac, respiratory-pulmonary, and cerebral disorders. Psychological causation and symptomatology receive scant attention. They are discussed under the headings of hysterical fainting, psychic fainting with acute stress, and fainting with neurotic or psychotic illnesses.—J. C. Brengelmann.

7097. Fennell, George. (Hosp. Sick Children, London, England) *Psychogenic factors in vasomotor rhinorrhoea*. *Brit. J. Psychiat.*, 1963, 109 (Whole No. 458), 79-80.—In a series of 45 patients treated with librium, 20 had full psychiatric examinations. The drug helped few and the psychiatric examination revealed no great incidence of mental disturbance. It is suggested that assumptions about the extent of psychogenic causation need reassessment; tensions are present for all in contemporary urban life. The use of leading questions to show that emotional factors are present does not prove the potency of psychogenic factors.—W. D. Wilkins.

7098. Graber, G. H. *Zyklus und seelische Reaktionen der Frau*. [The menstrual cycle and emotional reactions in women.] *Acta psychother. psychosom., Basel*, 1962, 10(4), 280-285.—A 37-year-old woman in deep psychotherapy showed slight cycle-connected somatic changes, but profound emotional changes grounded in her frustrated desire for a child.—G. Rubin-Rabson.

7099. James, William H. (Dalhousie U., Halifax, Nova Scotia, Canada) *Control data for evaluating the efficacy of psychotherapy in habitual spontaneous abortion*. *Brit. J. Psychiat.*, 1963, 109 (Whole No. 458), 81-83.—Data from the Indiana Institute for Sex Research and from T. E. Reed and E. L. Kelly are analyzed to show the probability of another spontaneous abortion when a woman has had 2 or 3 such. As psychotherapy has been shown beneficial for pregnant habitual aborters—perhaps doubling the possibility of successful term—these data provide control information for series of women obtaining psychotherapy.—W. L. Wilkins.

7100. Knapp, Peter H. (Boston U., School Medicine, Boston) *Models and methods: A psychodynamic predictive approach to bronchial asthma*. *J. nerv. ment. Dis.*, 1962, 135(5), 440-454.—A psychodynamic model and a method for testing some aspects

of the model are described as used predictively in a study of bronchial asthma.—*N. H. Pronko.*

7101. Nagi, Saad. (Ohio State U.) **Socioeconomic stress and arteriosclerotic heart disease.** *Rural Sociol.*, 1962, 27(4), 428-437.—Social and economic factors are related to the incidence of heart disease.—*H. K. Moore.*

7102. Rosengren, William R. (Brown U.) **The sick role during pregnancy: A note on research in progress.** *J. Hlth. hum. Behav.*, 1962, 3(3), 213-218.—Hour-long interviews with 76 female Ss were designed to elicit the nature of their role expectations during pregnancy and background information. About 30 variables were studied statistically. Concerning the sociocultural variables, "the sick role score was negatively correlated with the subject's education, family income, ways-of-life, and positive aspirations, the husband's education, and his occupational status. It was positively correlated with the subject's sick role expectations, her material and negative aspirations, labor-time, and the month of pregnancy at the time of the interviews."—*L. A. Ostlund.*

7103. Sines, J. O. (Washington University, St. Louis) **Strain differences in activity, emotionality, body weight and susceptibility to stress induced stomach lesions.** *J. genet. Psychol.*, 1962, 101(2), 209-217.—144 males and females of 5 different strains of laboratory rats were studied. Results indicate that there are strain differences in all variables studied, and these are more pronounced (and more often statistically significant) among males. Incidence of immobilization-induced stomach lesions was found to be positively related to level of activity and amount of defecation in the open field. The higher mean activity level of the susceptible animals suggested that such animals are less fearful than resistant animals under novel stimulus conditions. This latter interpretation seemed to be consistent with findings of previous studies relating to this area.—*Author abstract.*

EPIDEMIOLOGY

7104. Constantinidis, J., Garrone, G., & de Ajuriaguerra, J. **L'hérédité des demences de l'ade avancé.** [The heredity of senile dementias.] *Encephale*, 1962, 51(4), 301-344.—A review of the literature on senescence, cerebral arteriosclerosis, senile dementia, Alzheimer's disease, and Pick's disease shows a common supposition of constitutional factors in these disturbances of the aged. A study of 814 cases (½ female) revealed 188 related cases which could be located on 88 genealogical trees. 74 other patients had relatives who had suffered from senile dementia, but without hospitalization. The rate of incidence in these families was far greater than in the general population: atrophicodegenerative dementias more so than cerebral arterio-sclerotic dementias. Cerebral vascular fragility seems to be transmitted as a dominant with variable expressivity (penetrance in these cases, 40%). (140 ref.)—*W. W. Meissner.*

7105. Enright, J. B., & Jaeckle, W. R. **Ethnic differences in psychopathology.** *Soc. Process*, 1961-62, 25, 71-77.—Japanese paranoid schizophrenic patients differ from Filipino patients with the same diagnosis in being more restrained and inhibited with more autoplasmic behavior. "In view of anthropological descriptions of Japanese culture as putting tremendous pressures toward conformity and self-control

on the individual, these symptoms are what would be expected if cultural factors contribute to symptom formation." In comparison of psychopathology of different ethnic groups, reliance on standard diagnostic labels concealed clear and important differences in actual symptoms.—*E. L. Gaier.*

7106. Ikeda, Kiyoshi; Ball, Harry V., & Yamamura, Douglas S. (Oberlin Coll.) **Ethnocultural factors in schizophrenia: The Japanese in Hawaii.** *Amer. J. Sociol.*, 1962, 68(2), 242-248.—This study of differential risk in schizophrenia among the Okinawan and Naichi Japanese in Hawaii directs attention to possible links between ethnicity and types of personality disturbances. Although both subgroups within the Japanese are similar in in-hospital diagnoses of schizophrenia, the Okinawans are disproportionately higher in risk. Further research to determine the effects of ethnicity and other socio-cultural influences seems warranted.—*R. M. Frumkin.*

7107. Kleiner, Robert J. Tuckman, Jacob, & Lavell, Martha. (Philadelphia Dept. Public Health) **Mental disorder and status based on Protestant subgroup membership.** *J. soc. Psychol.*, 1962, 58(2), 345-348.—In the present study, with Episcopalians and Presbyterians designated as high status and Methodists and Baptists as low, additional support was obtained for the hypotheses: (a) a low status group will show a greater incidence of extreme aggressive or withdrawal behavior (i.e., the paranoid and other schizophrenic reactions respectively) than a high status group; and (b) a low status group will show an earlier onset of mental illness than a high status group. In one earlier study, status was based on racial membership (white and nonwhite); in the other, on religious affiliation (Protestant and Catholic). The sample in the present study consisted of white Protestant first admissions to a psychiatric evaluation center.—*R. J. Kleiner.*

7108. Lidz, T., Schafer, S., Fleck, S., Cornelison, A., & Terry, D. **Ego differentiation and schizophrenic symptom formation in identical twins.** *J. Amer. Psychoanal. Ass.*, 1962, 10(1), 74-90.—Identical twins seem disposed to develop symbiotically without adequate ego boundaries between them. Problems of narcissism become accentuated. Homoerotic trends are heightened. Within the family one twin usually develops a more dominant and one a more passive role. Initial rivalry for the mother leads to inter-twin rivalry. The superego structure of each twin tends to remain incomplete. Ego ideals may be followed that fit the partial identity of the twin and a pattern that requires complementing by another. Incest and homosexuality are often 2 sides of the same coin—narcissistic problems—rooted in the twin relationship and in family interaction.—*D. Prager.*

7109. Sheeche, Paul R. **Dynamic risk analysis in retrospective matched pair studies of disease.** *Biometrics*, 1962, 18(3), 323-341.—A mathematical model of an exponentially changing risk of disease may be tested with matched pair data obtained from hospital records. Relative incidence as a function of age and other measured variables is considered in the model. An illustration of breast cancer is used.—*R. L. McCornack.*

7110. Szpilka, Jaime. (U. Nacional de Buenos Aires) **Psicodinámica familiar y enfermedad mental: Investigación psicosocial de un grupo de pa-**

cientes del servicio psiquiátrico de un hospital general. [Family psychodynamics and mental illness: Psychosocial investigation of a group of patients from the psychiatric service of a general hospital.] *Acta psiquiat. psicol. Argent.*, 1962, 8(1), 37-41.—Interviews and tests were used to study the family interaction of 220 patients. The sick person is the exponent and depository of anxieties and tensions in the group. The group is thus the unit of sickness. The sick one maintains a relationship of strict identity with the leader. When tensions are evenly distributed, the group functions positively, but a disequilibrium is charged against the sick one who is alienated from the group. Findings: (a) 80% of the patients were educationally and culturally superior to their families; (b) 75% expressed conflicts more intense than other members; (c) all were characterized by others as dreamers, idealists; (d) all exercised or showed qualities of leadership in their groups.—*W. W. Meissner*.

7111. Verbeek, E. (van Heemstralaan, 51, Arnhem, Holland) *A la recherche de l'origine des psychoses endogènes*. [Researching the origins of indigenous psychoses.] *Evolut. psychiat.*, 1962, 27(3), 367-378.—This article is an elaboration of the original nosologic system of Kraepelin. Specifically, it suggests that methods of modern genetic bloodgroup research are relevant to psychiatry. In addition, the contemporary, scientific research in mutations likewise suggests hereditary causality as important in the study of psychoses.—*L. A. Ostlund*.

EDUCATIONAL PSYCHOLOGY

7112. Atutov, P. R. (Scientific Research Inst., Acad. Pedagogical Sciences, RSFSR) *O primeneni kibernetiki v pedagogike*. [On the application of cybernetics in pedagogics.] *Sovetsk. Pedag.*, 1962, 26(9), 147-152.—Methodological problems are examined with the purpose of showing the feasibility of applying cybernetic techniques to pedagogics, including both instruction and education. The application of these techniques will lead to research of greater utility, through the use of objective methods. The primary difficulty, however, stems from the fact that many pedagogic processes have not as yet been formalized, a problem whose solution will require scientific personnel from the fields of engineering, mathematics, pedagogics, and psychology.—*D. G. McDonald*.

7113. Ite'lon, L. B. (M. F. Akhundova Azerbaijanian Pedagogic Inst. Linguistics) *Issledovanie zakonomernostei obucheniya i vospitaniya metodami matematicheskoi statistiki*. [An investigation of the regularities of instruction and education with the methods of mathematical statistics.] *Sovetsk. Pedag.*, 1962, 26(10), 109-124.—The author examines the question of whether or not statistics can be used to solve problems in pedagogic research. In a hypothetical problem, it is shown how such techniques as the *t* and *F* tests, as well as a regression model, can be applied effectively. The underlying assumptions and requirements of these techniques are discussed. It is concluded that the application of such techniques is necessary for the further development of pedagogic science.—*D. G. McDonald*.

7114. Japanese Association of Educational Psychology. (U. Tokyo, Japan) *Annu. Rep. educ.*

Psychol. Jap., 1962, 1, 144 p.—"This Annual Report covers the papers presented at the third annual convention, reports on the Association's project, discussions at the convention, the review of literature in educational psychology published in Japan during the previous year, and a bibliography." The report is in Japanese; the subjects of the papers and abstracts of the projects are in English.—*E. Borrowman*.

7115. Pressey, Sidney L. (U. Arizona) *Psychotechnology in higher education versus psychologizing*. *J. Psychol.*, 1963, 55(1), 101-108.—It has been predicted that college enrollments will double within 10 years. A variety of evidence is presented, suggesting that this crisis can be met by a coordinated program including credit by examination especially at entrance, an "all-year" schedule which should also include off-campus projects or travel and work-study combinations, and independent study aided by auto-instruction. Evidence is submitted indicating that such a plan would probably improve school work, initiate careers earlier, and make careers more fruitful. Plans are indicated for continuing checks on the adequacy of such proposals. In this time of world crisis, investigations without constructive proposals are considered inadequate.—*Author abstract*.

7116. Rozenberg, M. I. (Scientific Research Inst. Pedagogics, Ministry Education, USSR) *Ispol'zovat' dostizheniya kibernetiki v nauchno-pedagogicheskikh issledovaniyakh i shkol'noi praktike*. [The utilization of progress in cybernetics in scientific-pedagogic investigations and scholarly practice.] *Sovetsk. Pedag.*, 1962, 26(6), 70-76.—The principles and operations of cybernetics are outlined, showing how these operations are analogues of natural systems. It is shown that certain problems in educational research can be resolved through the use of cybernetic techniques. The necessity for broad utilization of cybernetic resources in pedagogic science is emphasized.—*D. G. McDonald*.

7117. Samarin, YU. A. (Leningrad, USSR) *Voprosy psikhologii obucheniya i vospitaniya vzroslykh*. [Problems of the psychology of training and education of adults.] *Vop. Psikhol.*, 1962, No. 3, 127-130.—Several problems involved in adult education are briefly mentioned. These include training for independent study, integrating life and technical experience with the training, and developing the understanding of the worker about his occupational role.—*H. Pick*.

7118. Shah, Madan G. *School social service*. *Indian J. soc. Wk.*, 1961, 22(3), 203-208.—Following several case histories is the conclusion that social service facilities for schools are an absolute necessity.—*R. Schaef*.

SCHOOL LEARNING

7119. Bosley, Howard E. (Maryland Dept. Education) *Class sizes and faculty-student ratios in American colleges*. *Educ. Rec.*, 1962, 43(2), 148-153.—Investigations of the merits or demerits of large classes have not affected faculty-student ratios in American state colleges. The number of students taught per day or week by a single professor is a more significant factor than faculty-student ratios or average class sizes. Large group instruction is influenced by personal characteristics of the instructor, subject

matter, maturity, intelligence, and drive of the learners.—W. W. Meissner.

7120. Cambon, J. *Objectivité de la notation des tests de connaissances à réponses libres*. [Objectivity in scoring essay questions on achievement tests.] *BINOP*, 1961, 17(5), 329-334.—Objective standards, thought out in advance for scoring essay questions greatly enhances the reliability of the results. The author prefers this method to wholesale substitution of objective (multiple choice, etc.) tests, fearing that what is gained in objectivity will be at the expense of validity. Objective tests may however be used to supplement essay type examination. For the latter, exact rules for scoring should be set up so as to minimize the weaknesses. A series of suggestions for improving marking procedures is included.—D. Midlin.

7121. Erickson, Stanford C. (Vanderbilt U.) *The place of thinking in an ideal university*. *Amer. Psychologist*, 1962, 17(10), 763-771.—"As behavioral scientists and as citizens we believe in and we exercise free and open intellectual inquiry and the main point of this paper is simply to say that we should also do this as teachers." Major sections are: Education for Excellence, Idiographic Press, Movement Toward the "New Think," and Ultimate Criteria. "The primary place of thinking is not in the curriculum, nor in the lecture room, nor at the faculty meeting. These are places for supportive thinking." The teacher's purpose is to encourage the individually different student to aim his learning talents toward socially worthwhile goals. In the "honest and uncomplicated relationship, between two self-respecting individuals, is the best place to find thinking in an ideal university."—S. J. Lachman.

7122. Esaulov, A. F. (Leningrad, USSR) *Roľ proizvodstvennogo opyta i teoreticheskikh znanij v konstruktivno-tekhnicheskoi deyatel'nosti*. [The role of industrial experience and theoretical knowledge in constructive-technical activities.] *Vop. Psichol.*, 1962, No. 3, 136-148.—Good and bad students with and without industrial experience were given a task of determining the relative stability of a cube and a cylinder. This could be done geometrically or algebraically. The good students with industrial experience were able to solve it both ways. The poor students with industrial experience were more successful than the good students without industrial experience, although the former had some difficulty with precise algebraic solutions. It is suggested that practical experience orders the knowledge obtained in classes and permits the organization of theoretical and practical knowledge.—H. Pick.

7123. Fleszner, Edda. *Praktyka w szkole i szkola praktyki*. [Practical work in school and the school for practical work.] *Psychol. wych.*, 1962, 5(3), 281-289.—"Making things practical" is of continual concern to teachers, while psychologists, who have marginal interests in this area, spend their efforts on transfer experiments. When teachers are "practical," they tend to deal with only a small aspect of reality which requires only a minimum of analysis and abstraction. Consequently, teachers should consider the complex work-a-day world when they relate theory to practice.—H. Kaczkowski.

7124. Fowler, William. (U. California, Berkeley) *Teaching a two-year-old to read: An experiment in early childhood learning*. *Genet. Psychol.*

Monogr., 1962, 66(2), 181-283.—E's 2-year-old daughter was given daily reading instruction over 9 months. Various play-activity methods and fabricated, simplified reading materials (including phonics) were used experimentally. Continuous measures of reading progress, methods, and S's emotional status were recorded and pre- and post-IQ tests were given. After 7 months, S had a 250 word, out-of-context recognition vocabulary; read individual 2-5 word sentences and began to read preprimers; and perceived words rather precisely through phonic cues. Then motivations dropped and emotional problems arose, apparently due more to starting nursery school than to hypothesized reading pressures. Follow-up to age 5½ showed S reading at 3rd-grade level, enjoying many interests, and well-adjusted.—Author abstract.

7125. Garverick, Charles M., & Carter, Harold D. (U. California, Davis) *Instructor ratings and expected grades*. *Calif. J. educ. Res.*, 1962, 13(5), 218-221.—A cluster analysis was made of scores on an instructor rating form completed by 164 college students in an introductory educational psychology course, and on the same instructor. "A cluster composed of items related to expected grades was found to be almost independent to a second cluster which included items concerned with general instructor effectiveness. . . . No statistically significant relationship was found between the measured ratings of an instructor by his students and the grades mentioned as being expected or deserved."—T. E. Newland.

7126. Grodskaya, N. V. (Inst. Psychology USSR, Kiev) *O razvitií myshleniya uchashchikhsya v protsesse usvoeniya sistemý odnorodnykh ponyatií*. [On the development of thinking of pupils in the process of mastery of homogeneous concepts.] *Vop. Psichol.*, 1962, No. 3, 106-116.—A study of the development of thinking processes was carried out using mastery of grammatical parts of speech and sentences as the experimental task. Pupils of the 6th and 7th grades were taught to identify 1st subject and predicate, 2nd objects and predicate adjectives, and finally adverbs. In the experimental groups the method used involved getting the pupils to respond to increasingly more general cues. The control groups were taught in the ordinary class room manner and showed much less ability to transfer to the more abstract task involved with adverbs.—H. Pick.

7127. Ignatyev, E. I. (Psychological Inst., Moscow, USSR) *A tanulók reprodukív képzetének fejlődése*. [Development of the reproductive imagination of school-children.] *Magyar pszichol. Szle.*, 1961, 18(2), 157-162.—Reproductive imagination is the basis for most educational processes. In nursery age children this ability is inadequate due to imperfection of the observation process. Gradually reproduction becomes more exact, especially if it is connected with some important activity for the child. Until 7th grade there is a need to rely upon the perception of real objects and the results of reproduction frequently have the character of "reaction of part-vision." In the 10th grade pupils are capable of reproducing perfectly according to the given scheme. "In the course of development the creation of the pictures is accompanied in an increasing degree by an analyzing-synthesizing activity, by judgment, thinking, volitional display of strength, promoting the

imaginary picture to be kept in memory."—E. Freidman.

7128. Kulyutkin, YU. N. (Leningrad, USSR) O vliyanií proizvodstvennogo opýta uchashchikhsya vechernikh (smennýkh) shkol na usvoenie imi teoreticheskikh znanií. [On the influence of production experience of night school pupils on their mastery of technical knowledge.] *Vop. Psikhol.*, 1962, No. 3, 131-135.—2 simple demonstration experiments are reported. In one, a lesson about the transmission of rotary motion shows better retention and transfer when it is caught in the context of the practical experience of the pupils then when it is taught in the usual manner. In the other, in a course on the physical and chemical aspects of steel, there resulted an increase in knowledge in practical and theoretical aspects of the use of steel and steel production as well as in the straight course material.—H. Pick.

7129. Tausch, Reinhard. (Pädagogie Hochschule, Kettwig/Ruhr, Germany) Merkmalsbeziehungen und psychologische Vorgänge in der Sprachkommunikation des Unterrichts. [Characteristic relations and psychological processes of verbal communication in teaching.] *Z. exp. angew. Psychol.*, 1962, 9(3), 474-508.—The verbal behavior of 10 teachers and 318 pupils during 10 hours of instruction was recorded on tape. Verbal characteristics of teachers and pupils (i.g., frequency of words, length of phrases, verbal style, etc.) occur with predictable probability intra-individual as well as inter-individual. Contrary to expectations, insignificant intra-individual differences were found among teachers with respect to verbal characteristics; however, large inter-individual differences were observed. Attitudes specific to the personality structure determined the later.—W. J. Koppitz.

7130. Trabue, Ann. (Radford Col.) Classroom cheating: An isolated phenomenon? *Educ. Rec.*, 1962, 43(4), 309-316.—Cheating is discussed in the light of pressures imposed on the students by parents and the competitive academic atmosphere. Cultural values are at stake which it is the part of responsible teachers to preserve. But acceptance of the child, even when he does wrong, must be carefully dissociated from acceptance of the deed.—W. W. Meissner.

INSTRUCTIONAL AIDS

7131. Armed Services Technical Information Agency. Teaching machines: A report bibliography. Arlington, Va.: ASTIA, 1962. v, 49 p.—The bibliography contains sections on ASTIA documents, books, dissertations, patents, periodicals, and research grants.—E. L. Borrowman.

7132. Brooks, Lloyd Oliver. (U. Houston) Response latency in programmed learning: Latency related to error rate. *Dissert. Abstr.*, 1962, 22(7), 2471.—Abstract.

7133. Cohen, Ira S. (U. Buffalo) Programmed learning and the Socratic dialogue. *Amer. Psychologist*, 1962, 17(10), 772-775.—2 modes of presentation of a learning sequence, the Socratic method and a programmed adaptation, are specified and paralleled in a chart for comparison purposes. The programmed adaptation was tested by administering it, in booklet form, to 32 psychology undergraduates. On the immediate criterion test, 17 were able correctly to pre-

sent the geometric theorem. A revised program was administered to an equivalent group of 33 students. "27 were able correctly to present the geometric theorem on the immediate criterion test. . . . It is clear that programmed instruction is similar to the Socratic dialogue, but in its differences lies the potential for widespread and enduring changes in the educational enterprise."—S. J. Lachman.

7134. Jacobs, Paul I. (Educational Testing Service) Some relationships between testing and auto-instructional programing. *Audiervis. commun. Rev.*, 1962, 10(6), 317-327.—A discussion of "two problems in programing which do not usually occur in testing, but for which testing considerations are relevant: (a) the optimal ordering of auto-instructional material; (b) the assignment of different sequences of material to different learners."—R. E. Schutiz.

7135. Kopstein, Felix F., & Cave, Richard T. (Wright-Patterson AFB, O.) Preliminary cost comparison of technical training by conventional and programmed learning methods. *USAF MRL tech. docum. Rep.*, 1962, No. 62-79. iv, 19 p.—This report considers the comparative costs of training airmen for electronics specialties with automated and conventional instruction. 3 different methods of estimating the costs of the prototype automated course for communications electronics principles, Keesler Air Force Base, Mississippi, are compared with the estimated costs of the current conventional course. Costs of automated instruction compare favorably with those of the conventional course regardless of the method of estimation. Further, these programing costs continue to diminish as the number of students trained increases, while conventional costs remain constant. Generalizations related to the economic factors of auto-instruction are discussed in terms of general application to Air Force training courses.—USAF MRL.

7136. Lumsdaine, Arthur A., & Glaser, Robert. (Eds.) Teaching machines and programmed learning: A source book. Washington, D. C.: National Education Association, 1960. xii, 724 p. \$7.50.—A compendium of articles classified into 5 parts: "Purpose and Scope of This Book," "Pressey's Self-Instructional Test-Scoring Devices," "Skinner's Teaching Machines and Programming Concepts," "Contributions from Military and Other Sources," and "Some Recent Work." Part I includes an introductory overview (Lumsdaine) and a preview (Glaser). Part II presents S. L. Pressey's 3 original papers on teaching machines and a paper on a punch board device, as well as experimental studies on programed guidance (J. C. Peterson), drill by machine (J. K. Little), a new self-scoring testing device for improving instruction (G. W. Angell & M. E. Troyer), and law of effect (A. L. Stephens). In Part III, papers by B. F. Skinner, D. Porter, J. G. Holland, L. E. Homme, C. B. Ferster, S. M. Sapon, S. R. Meyer, and W. Hively define the reinforcement approach. In Part IV, general and military papers cover educational invention (I. Mellan), programing (N. A. Crowder, E. Z. Rothkopf), instrumental papers (P. K. Weimer, L. J. Briggs, G. Pask, F. M. Gardner, D. E. Damrin, Glaser), and the technology of teaching (S. Ramo, J. D. Finn). In Part V, recent work covers special projects (J. A. Barlow, Glaser & Homme, J.

E. Coulson & H. F. Silberman, E. B. Fry, T. F. Gilbert, A. Amsel) and a general appraisal of machines (J. W. Blyth, D. J. Mayhew & A. F. Johnson, Pressey, Lumsdaine, W. J. Carr).—K. U. Smith.

7137. Schutz, Richard E., Baker, Robert L., & Gerlach, Vernon S. (Arizona State U.) Teaching capitalization with a programed text. *Audiovis. commun. Rev.*, 1962, 10(6), 359-363.—A report "of an experimental application with elementary school children of a self-instructional program designed to develop ability to capitalize words acceptably." The novel research problems created by "the characteristics of the typical . . . classroom and the requirements imposed by automated instruction" are discussed.—R. E. Schutz.

7138. Shestakov, A. I. Opyt primeneniya "obichayushchikh mashin" v Soedinennykh Shtatakh Ameriki. [Information on the application of "teaching machines" in the United States.] *Sovetsk. Pedag.*, 1962, 26(12), 60-72.—The author reviews several American reports on the effectiveness on teaching machines. The general characteristics of both machines and machine programs are discussed, as well as some experimental data showing the relative effectiveness of various procedures with several different subject areas. It is concluded that methods of programmed instruction are deserving of broad study.—D. G. McDonald.

7139. Solov'eva, E. E. (Scientific Research Inst., General & Polytechnical Education, Acad. Pedagogical Sciences RSFSR) Opyt primeneniya mashinnoy tekhniki v pedagogicheskom issledovanii. [An experimental comparison of machine techniques in a pedagogic investigation.] *Sovetsk. Pedag.*, 1962, 26(8), 116-129.—Students in 32 biological science classes were shown classroom films under 4 conditions: (a) teaching film without discussion from the instructor, (b) film followed by discussion led by the instructor, (c) a "fragmented film" with discussion interspersed, and (d) control lessons in which films were not shown. Measures of learning indicated that students generally performed best when films were shown in the "fragmented" manner. It was concluded that the "fragmented" method of presentation is of greater didactic value with both students and teachers of various abilities and qualifications.—D. G. McDonald.

ATTITUDES & ADJUSTMENT

7140. Akavya, Uriel. Tahbivey noar hamesayem bet-sefer yesodi. [Hobbies of children entering secondary school.] *Hahinukh*, 1961-62, 34, 405-408.—Questionnaires were administered to 80 boys and 80 girls, 13½-14½ years old, entering rural secondary school to obtain information on hobbies as such, their quantity, frequency, and variability with kind of residence and parents' profession.—H. Ormian.

7141. Amthauer, Rudolf. Ergebnisse einer Studie über krankheitsbedingte Fehlzeiten. [Results of a study on absenteeism caused by sickness.] *Psychol. Rdsch.*, 1963, 14(1), 1-12.—Intelligence, performance, and teacher ratings for 2 groups of apprentices were compared. Boys in Group 1 had been absent for not more than 3 days a year; boys in Group 2 had been absent for more than 30 days. The low absentee group scored better in all categories than the high absentee group, indicating strongly motivational com-

ponents in absenteeism. Social-psychological, educational, and hygienic measures to overcome the problem are discussed.—W. J. Koppitz.

7142. Blondel, J. Etude sociométrique dans les classes de cours moyen, de fin d'études et de sixième. [Sociometric study in several grades, corresponding to Grades 5 through 8.] *BINOP*, 1962, 18(3), 163-180.—Sociometric choices in 26 classes, based on 3 criteria (play, work, and friendship) were analysed. The most popular pupils tended to be younger, more intellectually inclined, and more imaginatively creative. Their popular status was found to be stable over several years. Popularity in this school setting and at this age was most highly correlated with scholastic achievement.—D. Mindlin.

7143. Byers, Joe J. (U. California, Berkeley) A study of the level of aspiration of academically successful and unsuccessful high school students. *Calif. J. educ. Res.*, 1962, 13(5), 209-216.—121 Ss in E's American history class were categorized as a Success Group (N = 55; mean academic school grade = 34.15; mean Hermon-Nelson IQ = 110.4) and as a Failure Group (29; 10.41; and 91.9, respectively). Each student set his goal, privately with E, 5 different times. Analysis of the discrepancy scores under 4 success-failure conditions led to the conclusions: "In general both past and current experiences with academic tasks is significantly related to the goal setting patterns of students in an actual (classroom) learning situation. Past experience, however, appears to operate only until S's gain experience in the current task. Failure experience, whether past or current, is more closely associated with high and unrealistic goal setting than is success experience. On the other hand, current and past success experiences are more closely related with realistic and in some cases low and unrealistic goal setting."—T. E. Newland.

7144. Frumkin, Robert M. (State University Coll., Oswego, N. Y.) The sex, love, and marriage questions of freshman and sophomore college students: Implications for family life education. *J. hum. Relat.*, 1962, 10(4), 488-494.—A comparison of 587 questions asked by college students, in the latter part of the 1950's, about family and sex behavior with questions asked by young men and women during World War II (1942-46) and reported in studies by Brown (1948) and Ellis and Fuller (1950). The findings indicate that there are no signs that the ignorance and anxieties of modern youth have changed significantly in the past 2 decades except, perhaps, in relation to attitudes toward premarital sexual intercourse and petting. Such findings suggest that teachers of courses concerned with preparation for family life re-examine their methods and materials and help young people seek satisfactory answers to the questions that trouble them.—Author abstract.

7145. Kahn, Jack H., & Nursten, Jean P. School refusal: A comprehensive view of school phobia and other failures of school attendance. *Amer. J. Orthopsychiat.*, 1962, 32(4), 707-718.—The literature on breakdown in school attendance is reviewed. Cases of school refusal can be grouped under 3 headings: psychoneurotic, including phobic conditions; character disorders; and psychotic conditions. Treatment should be directed to the underlying condition rather than the symptom of school refusal. (59 item bibliogr.)—R. E. Perl.

7146. Kinnane, Mary. (Boston Coll.) Attitudes of college students toward college teaching as a career. *Educ. Rec.*, 1962, 43(2), 139-147.—Questionnaire data from 3380 students in 45 New England institutions and interview data from 76 students on the dean's list at 6 institutions provide the empirical base of this study. Students seem most impressed by low salaries and the abundance of teaching positions. Professional prestige is seen on the upgrade, but students feel that notions of college teaching as a second-rate profession are perpetuated by some teachers who encourage students to be "a physicist rather than a teacher of physics."—*W. W. Meissner*.

7147. Martucci, Leo George. (Rutgers U.) Some correlates of responses to a standard interview among high school boys. *Dissert. Abstr.*, 1962, 22(9), 3266-3267.—*Abstract*.

7148. Murray, Evelyn. (United States Dept. Labor) Work: A neglected resource for students. *Personnel Guid. J.*, 1962, 41(3), 229-233.—"A program of keeping youth in school and providing them work experience and the type of training they can absorb seems to be one of the best methods our society can offer today to develop youth. The supervised work-and-study program is one way of shortening the period of economic and psychological dependence which at the same time gives young people an opportunity to remain in school. The trend is to delay youth's entrance into the full-time labor market. Organized methods of insuring work and school become necessary."—*S. Kavruck*.

7149. Olesen, Virginia Lee. (Stanford U.) Sex role definitions among college undergraduates: A study of Stanford freshmen. *Dissert. Abstr.*, 1962, 22(10), 3761-3762.—*Abstract*.

7150. Rao, N. A. Hanumantha. A comparative study of the reading habits of college and high school students. *J. Karnatak U.*, 1961, 5, 62-92.—A questionnaire was administered to 318 college and 73 secondary school students. It was found that college students read journals and novels. They preferred regional language. They read more than high school students.—*U. Pareek*.

7151. Ruthenberg, Donald Burton. (U. Denver) Differences in staff perceptions of rules, regulations, policies, and procedures in residence halls at the University of Denver. *Dissert. Abstr.*, 1962, 22(10), 3762.—*Abstract*.

7152. Vignoli, S. Una ricerca sull'importanza del social-sense nella scuola, visto con il Test Tsdek ed il test sociometrico del Moreno. [Study of importance of social sense in school, as seen through the Tsdek Test and Moreno's sociometric test.] *Riv. Psicol. soc.*, 1962, 29(2), 153-161.—There is a relationship between school maladjustment, insecurity, and lack of a clear sense of moral evaluation. However, these variables are not related to academic performance.—*L. L'Abate*.

SPECIAL EDUCATION

Reading

7153. Betts, Emmett Albert. (U. Miami) Impact of adult reading on pupil achievement. *Education*, 1961, 82(1), 29-35.—"At present there is a speed-reading boom. However, the facts point to the

need for more emphasis on discriminative reading—on the 'pursuit of excellence.' This needed emphasis on discriminative reading requires planned teaching of depth reading."—*C. T. Morgan*.

7154. Davis, F. B., & Davis, Charlotte C. Davis Reading Test. New York: Psychological Corporation, 1962. (2 ser., 4 forms each. 40 min. Manual, 31 p.)—A test yielding scores on 2 reading variables: speed and level of comprehension. For Series 1, usable in Grades 11-13, the manual gives scaled scores and percentile ranks equivalent to the raw scores for each form. The same statistics are given for Series 2, usable in Grades 8-11. Parallel form reliability and standard errors of measurement of each grade level are presented as well as validity coefficients using school marks, aptitude tests, and other reading tests as criteria.—*N. M. Chansky*.

7155. Duker, Sam. (Brooklyn Coll.) A bibliography on individualized reading. Brooklyn, N. Y.: Sam Duker, 1962. 15 p. \$1.50.—350 citations, indexed.

7156. Myklebust, Helmer R., & Johnson, Doris. (Northwestern U.) Dyslexia in children. *Except. Children*, 1962, 29(1), 14-25.—"The problem of childhood dyslexia has been discussed. A definition and frame of reference was given whereby this type of reading disability was used as a psychoneurological learning disorder. A syndrome associated with childhood dyslexia was presented with case illustrations. While much remains to be done by way of developing remedial educational procedures, it is apparent that when a precise diagnosis is made of the major and minor learning disorders and when the language apparently is based on the result, the outlook is favorable for children having this condition."—*J. Z. Elias*.

7157. Nair, Patricia Jo. (Clark U.) Distancing: The application of a development construct to learning disability. *Dissert. Abstr.*, 1962, 22(9), 3267.—*Abstract*.

Mental Retardation

Gifted Students

7158. Hughes, Herbert H., & Converse, Harold D. (Colorado State Coll., Greeley) Characteristics of the gifted: A case for a sequel to Terman's study. *Except. Children*, 1962, 29(4), 179-183.—A critique of Terman's study. "Apparently few researchers have been concerned with the contrast between the number with IQs of 140 or above (approximately .4 per cent) located in Terman's search for the gifted and the number with IQs of 140 or more (1.1 per cent) in the 1937 revision of the Stanford Binet." Other weaknesses suggest the need for improvements in research design in the study of the gifted.—*J. Z. Elias*.

7159. Norman, Ralph D., Clark, Betty P., & Bessemer, David W. (U. New Mexico) Age, sex, IQ, and achievement patterns in achieving and nonachieving gifted children. *Except. Children*, 1962, 29(3), 116-123.—"Two groups of 6th grade children with IQs of 130 or more on the California Test of Mental Maturity were defined as achievers or nonachievers respectively, based on anticipated achievement on the California Achievement Tests." Significant differences between these 2 groups were found in terms of age, sex, language, IQs, nonlan-

guage IQs, consistency of scores on the latter 2 measures, and total IQs. The "anticipated achievement in Arithmetic Reasoning was significantly highest of all CAT subtests among both achievers and nonachievers, but that in spelling was significantly lowest among the latter."—*J. Z. Elias.*

7160. Scarpellini, C. Gli alunni intellettualmente dotati nel giudizio scolastico e psicologico e nell'ambiente socio-culturale. [Intellectually gifted students through academic and psychological evaluation in socio-cultural environment.] *Arch. Psicol. Neurol. Psichiat.*, 1962, 23(6), 493-519.—Teacher's ratings of school children agree only in part with psychometric evaluation and tend to be favorable for the child. There is a strong relationship between high socioeconomic background and exceptional intelligence. Physical normality is highly associated with superior intelligence.—*L. L'Abate.*

EDUCATIONAL GUIDANCE

7161. Bonnardel, R. Diagnostic et pronostic en orientation scolaire et professionnelle. [Diagnosis and prognosis in academic and vocational guidance.] *BINOP*, 1961, 17(5), 307-328.—After reviewing theories of intelligence (general vs. factors vs. specific aptitudes), the author discusses shortcomings of scoring procedures and limitations of the tests in predicting success in various studies and professions. Characteristics other than intelligence and knowledge on tests are important, such as motivation, perseverance, interests, and ability to get along with others. Studies of correlations between various measurable characteristics and the eventual success in a specific situation (profession, school, etc.) are most useful and necessary for establishing effective prognostic measures. (24 ref.)—*D. Mindlin.*

7162. Crow, Lester D., & Crow, Alice. (Eds.) Readings in guidance: Principles, practices, organization, administration. New York: David McKay, 1962. xii, 626 p. \$3.95.—In covering the 4 areas listed in the title, 95 articles are reproduced. Topics discussed include: "Concepts and Problems of Guidance," "Problems of Personal Development," "Guidance and Individual Abilities," "Personal Values and Discipline," "Various Guidance Approaches," "Guidance in Group Situations," "Evaluation in Guidance," "Occupational Information and Vocational Guidance," "Parent-School Cooperation in Guidance," "Guidance in the Elementary School," "Guidance in the Junior High School," "Guidance in the High School," "Guidance Programs in School Systems," and "Guidance and Policy." Only a few of the articles are research reports. Several are copies of administrative memos outlining policies and procedures. For brevity, nearly all references have been omitted.—*W. Coleman.*

7163. D'Costa, A. Report on educational counseling (streaming). *J. voc. educ. Guid., Baroda*, 1961, 8(1), 37-46.—A report of an aptitude testing program for the placement of Class VIII pupils in Anglo-Indian schools of West Bengal, India, begun in 1959 and conducted by the Calcutta, Bureau of Vocational and Educational Counseling. The DAT battery was originally used but these tests were found to be too difficult. A general intelligence test by Ray was substituted in 1961, consisting of 3 subtests (verbal, numerical, spatial) from which 9 subscores may be obtained. Additional tests were constructed for

other aptitudes, as clerical speed and accuracy, memory. A total of 18 tests comprised the test battery. All scores were converted into stanines. School achievement is measured by the average grade obtained in at least 3 examinations in the same school subject (also converted to stanines). From all this a final report is made concerning the recommended "stream" (i.e., program as Humanities or Science) and the vocational plans for the student.—*W. L. Barnette, Jr.*

7164. Eells, Kenneth. (California Inst. Technology) Voluntary versus compulsory counseling with regard to college entrance plans. *Personnel Guid. J.*, 1962, 41(3), 234-239.—Of 128 poorly qualified applicants for admission to the University of Illinois, about ½ volunteered for counseling when it was offered. About 3 times as many of this group decided not to enroll after being shown the chances of academic success. However, no significant differences in later academic success was found between the group which volunteered for counseling and the group which reported for a required interview.—*S. Kavruck.*

7165. Goertzen, Stan M., & Ctrong, Donald J. (San Francisco State Coll.) Counseling practices in the small colleges and universities of the Pacific northwest: A twelve-year follow-up study. *Personnel Guid. J.*, 1962, 41(3), 254-259.—Results are for 2 surveys: the 1st in 1948 with 45 institutions, the 2nd for 52 schools in 1960. A high percentage of counseling staff combines counseling with administration. Few counselors were found without teaching commitments. Greater use of specialists for referral in psychology and psychiatry was made. Advising and educational counseling remained the focus for counseling programs.—*S. Kavruck.*

7166. Goldburgh, Stephen J., & Penney, James F. (Boston U.) A note on counseling underachieving college students. *J. counsel. Psychol.*, 1962, 9(2), 133-138.—An outline of a "counseling procedure for dealing with underachieving college students on an individual relationship basis of short duration and restricted objectives."—*E. R. Oetting.*

7167. Gonyea, G. G., & Warman, R. E. (U. Texas) Differential perceptions of the student dormitory counselor's role. *Personnel Guid. J.*, 1962, 41(4), 350-355.—The ideal student counselor is characterized by needs for nurturance and intraception, to a lesser extent by dominance and achievement, and least of all by autonomy and exhibitionism.—*S. Kavruck.*

7168. Hardee, Melvane Draheim. (Florida State U.) Research on college students: The student personnel worker's view. *Educ. Rec.*, 1962, 43(2), 132-138.—Problems connected with initiation of student personnel services in new institutions and the development of new methods for identifying the characteristics of students and describing the climate of learning are discussed. 4 educational needs are examined: (a) construction of well-founded premises for altering traditional student personnel programs, (b) making explicit the bases for institution of new programs, (c) recognizing current trends in identifying student characteristics, and (d) utilizing research results in current programs.—*W. W. Meissner.*

7169. Ivey, Allen E. (Bucknell U.) Role conflict in counseling. *J. counsel. Psychol.*, 1962, 9(2),

139-143.—On a questionnaire, students show no differences in satisfaction with interviews or with total guidance program, whether the counselor is or is not their teacher. They did express greater willingness to discuss psychological problems in the latter case.—*E. R. Oetting.*

7170. Kerr, William D. (U. Illinois) Student perceptions of counselor role in the college decision. *Personnel Guid. J.*, 1962, 41(4), 337-342.—Almost $\frac{2}{3}$ of students decide to attend a college between Grades 9 and 12. The counselor is seen as the most accurate source of information.—*S. Kavruck.*

7171. Khatri, A. A. Socio-cultural factors in guidance of college students. *J. voc. educ. Guid., Baroda*, 1961, 8(1), 30-36.—A presentation of some significant socio-cultural factors in the life space of college students in India, data for which are based on approximately 80 self-referrals to the Student Psychological Center at the author's school in Ahmedabad, India. The clinic has been in operation for 7 months. Sample cases are discussed where forced marriages are involved; special psychological problems with the "scheduled castes" are indicated; the conflict of the old culture versus the new is high-lighted. Familism and duty as values are being replaced by individual happiness as the important value.—*W. L. Barnette, Jr.*

7172. Korn, Harold A., & Parker, Edwin B. (Stanford U.) A normative study of the S.V.I.B. using an objective method of pattern analysis. *Personnel Guid. J.*, 1962, 41(3), 222-228.—Rules suggested by Darley for analysis of interest patterns do not meet the criteria of objectivity and reproducibility. As alternatives, the following are suggested: primary pattern (a majority of scores B+ or higher on the specific occupational keys), secondary pattern (a majority of scores B or higher, provided that it does not qualify as a primary pattern), reject pattern (a majority of scores at a standard score of 15 and below).—*S. Kavruck.*

7173. Mehta, H. P. Guidance needs and problems as perceived by headmasters of secondary schools of Ahmedabad City. *J. voc. educ. Guid., Baroda*, 1961-62, 8(2-3), 20-35.—A "feeler" study to ascertain what local headmasters in Ahmedabad, India thought about guidance programs and their readiness for such. 30 headmasters were interviewed, selected by a stratified sampling technique. Vocational and educational needs of students were the most frequently mentioned; the most frequent source of difficulty was localized with parents (disinterested or uncooperative with guidance programs). Headmasters are also faced with restrictions and rigidities imposed by the state department of education; these constitute a real obstacle to the development of guidance.—*W. L. Barnette, Jr.*

7174. Parameswaran, E. G., & Muthayya, B. C. (U. Madras) Influence of experimental instructions on vocational choice of adolescents. *J. voc. educ. Guid., Baroda*, 1962, 8(4), 23-27.—The report is based on 31 high school students, Grades 10-11 in an Anglo-Indian school. Students were asked to list 3 jobs they would like to do when they grow up and 2 jobs they most disliked. 10 days later, after a talk about the difficulties of getting certain preferred jobs and where the speaker also emphasized the dignity of work, the request was repeated. The number of jobs disliked declined dramatically. Changes of preferred

jobs were greatest for 3rd choice with fewest changes in 1st choice. The authors conclude that with well-worded instructions the class teacher may bring about greater stability in student job preference.—*W. L. Barnette, Jr.*

7175. Rezler, A. Occupational choice patterns in higher secondary schools. *J. voc. educ. Guid., Baroda*, 1961-62, 8(2-3), 1-4.—Boys and girls of high school Grades 9 through 11 in an Indian industrial community were asked to name the occupation they wanted to follow after completion of their studies. 2 sections were involved, one Hindi and one Bengali. As in the United States, there is the same wide discrepancy between choices (mostly professional) and available jobs for the boys; there were fewer undecided boys, even at Grade 9, than in the United States (only 8% for this Indian sample). The majority of girls select either medical doctor or teacher. The author advises that the British system of student selections be adopted but to postpone such selection until age 13-14. Such a procedure would prevent a great deal of wastage which India can ill afford.—*W. L. Barnette, Jr.*

7176. Riddle, C. W. (U. Hawaii) The problems of Indian college students. *J. voc. educ. Guid., Baroda*, 1962, 8(4), 17-22.—A nation-wide questionnaire study of the problems of students was done at the request of the All-India Educational and Vocational Guidance Association. The questionnaire was pretested and went through several revisions before the final form was constructed in 4 languages (English, Hindi, Marathi, Gujarathi). The committee hoped to study 1% of the college student population or 7471 students for 1958-59. About 7500 forms were sent out but only 3100 were returned. The questionnaire included 40 possible problems (examples: proper study methods, making friends, slow reading). Summary results are given for males and females, for students living in hostels and those living at home, the former have slightly more problems. About 85% of all students indicated they would welcome more help on problems from someone connected with the colleges they were attending.—*W. L. Barnette, Jr.*

7177. Roy, S. K. A vocational case study. *J. voc. educ. Guid., Baroda*, 1961-62, 8(2-3), 60-66.—A report of a 23-year-old Indian, junior executive in a private firm, now poorly adjusted since the present job does not satisfy his needs. He is still in the exploratory stage; earlier vocational guidance would probably have steered him into the area of English, an area of college study that his family would not allow. The case is presented, aside from special Indian features, to highlight the need for guidance. The author believes there must be many cases like this in India.—*W. L. Barnette, Jr.*

7178. Sinha, A. K. P. (Patna U. India) Counseling services in universities. *Indian J. Psychol.*, 1962, 37(1), 1-9.—In his Presidential Address before the Indian Psychological Association, the author reviews the nature and scope of counseling services, the role of the counselor at college level, and the importance of counseling in furthering educational goals. He presents a classified list of typical student problems encountered in an established guidance center (Patna) and makes a plea for more widespread introduction of student counseling services in colleges and universities of India.—*J. T. Cowles.*

EDUCATIONAL MEASUREMENT

7179. Germain, José, & Pascual, Marcelo. (Madrid, Spain) Estudio del Test Mosaico de Gille en una muestra de escolares madrileños. [Study of the Gille Mosaic Test in a sample of Madrid students.] *Rev. Psicol. gen. apl.*, 1961, 16(Whole No. 59), 585-614.—The Gille Mosaic Test, developed in France, was administered to 559 Spanish students aged 8-16. It consists of 62 items, verbal and quantitative, knowledge and reasoning, and item analyzed in detail. It correlated in low middle ranges with grades in math, letters, and deportment; slightly higher (.55) with academic intelligence tests; and .74 with itself (split-half).—E. B. Page.

7180. Womer, Frank B. (U. Michigan) The need for the National Merit Scholarship Qualifying Test: A Michigan Study. *Personnel Guid. J.*, 1962, 41(3), 218-221.—Since the study indicated that high schools can readily identify the top 10% of their own students on the basis of test scores and staff judgments, the question is raised concerning the possible elimination of the NMSQT as one additional external testing program. Advantages and disadvantages of such a proposal are cited.—S. Kavruck.

Aptitudes

7181. Camp, W. L., & Rothney, J. W. M. (U. Wisconsin) Use of the Concept Mastery Test in study of superior high school seniors. *Voc. Guid. Quart.*, 1962, 10(4), 223-225.—In 1960-61, the CMT was administered by the Guidance Laboratory at the University of Wisconsin to all 12th-grade students referred. This was a superior group, falling within the top 1st percentile on the verbal section of SCAT and within the top 6th percentile on the quantitative section. 100 students were chosen at random from this group and a questionnaire study was completed concerning a wide variety of biographical facts. High CMT scorers tended to come from professional homes and from large urban schools; they prefer communications and mathematics subjects to other areas of study. Boys planning graduate work after college graduation scored higher than those without such plans, but this difference was not found for girls.—W. L. Barnette, Jr.

7182. Mukherjee, B. N. (U. North Carolina) The factorial structure of aptitude tests at successive grade levels. *Brit. J. statist. Psychol.*, 1962, 15(1), 59-65.—Research was designed "to verify the alleged differentiation in mental abilities reported by earlier factorists. Correlations for eight tests applied to boys and girls in grades 8 to 12 have been factorized by the method of principal axes and then rotated by the varimax method. Coefficients of similarity have also been calculated for the several groups. In general, the hypothesis of differentiation is confirmed; but in certain minor respects the results obtained seem to diverge appreciably from the conclusions reached by previous investigators." (16 ref.)—N. Earl.

7183. Willingham, W. W., & Strickland, J. A. (Georgia Inst. Technology) Conversion tables for Otis Gamma and Scholastic Aptitude Test. *Personnel Guid. J.*, 1962, 41(4), 356-358.—Based on a sample of 403 students equivalency scores are presented for Otis Gamma and Scholastic Aptitude Test

and a table showing predicted scholastic aptitude test scores based on Otis IQs.—S. Kavruck.

Achievement

7184. Cline, Victor B., Richards, James M., Jr., & Abe, Clifford. (U. Utah) The validity of a battery of creativity tests in a high school sample. *Educ. psychol. Measmt.*, 1962, 22(4), 781-784.—"These results indicate that the creativity tests in this battery do have considerable validity as predictors of academic performance, and that the criterion variance accounted for by the creativity tests is to a substantial degree independent of the variance accounted for by the IQ test."—W. Coleman.

7185. Davids, Anthony, & Sidman, Jack. (Brown U.) A pilot study: Impulsivity, time orientation, and delayed gratification in future scientists and in under-achieving high school students. *Except. Children*, 1962, 29(4), 170-174.—20 intellectually superior, highly successful high school boys were compared with 10 intellectually superior but underachieving boys. "... boys in the high achieving group were (a) less impulsive and more able to inhibit their responses in a situation that called for motor control; (b) more future oriented in their phantasies and imaginal processes; and (c) less concerned with immediate gratifications and better able to plan for future goals." No differences were found in ability to estimate passage of brief intervals of time.—J. Z. Elias.

7186. Drake, L. E. (U. Wisconsin) MMPI patterns predictive of under-achievement. *J. counsel. Psychol.*, 1962, 9(2), 164-167.—For male freshmen in the upper ½ of college aptitude tests "the pattern 49 is the important differentiating factor and ... scale 5 acts as a supressor variable."—E. R. Oetting.

7187. Gayen, A. K., Nanda, P. B., Mathur, R. K., Dubey, S. D., Duari, P., & Bhattacharyya, N. (Indian Inst. Technology, Kharagpur, West Bengal) Measurement of achievement in mathematics: A statistical study on effectiveness of board and university examinations in India. New Delhi, India: Government of India, Ministry of Education, 1961. (Res. Proj. Exam. Rep. No. 1) vii, 176 p.—A detailed analysis is made of the questions and answers given by a sample of 3717 pupils on a secondary school final examination in compulsory mathematics, consisting of short problems (with options) in arithmetic, algebra, and plane geometry. Appropriateness of concepts in relation to syllabus, split-half reliability, item-whole internal consistency, and difficulty of questions are evaluated. Distributions of total scores are compared with distributions of scores in languages. A more advanced mathematics examination is also briefly analyzed. A critique of public examinations in India and recommendations for improvement based on this study are given. (40-p. appendices; 14-p. index, glossary, & ref.)—J. T. Cowles.

7188. Hopkins, Kenneth D., Dobson, James C., & Oldridge, O. A. (U. Southern California) The concurrent and congruent validities of the Wide Range Achievement Test. *Educ. psychol. Measmt.*, 1962, 22(4), 791-793.—Using teacher's ratings of reading proficiency as the criterion, concurrent validity r's were computed for the Wide Range Achievement Tests given in Grades 1 through 5. The r's

obtained ranged from .74 to .86. Similar r 's were secured from the California Reading Test.—*W. Coleman*.

7189. Jones, Reginald L., & Siegel, Laurence. (Miami U.) The individual high school as a predictor of college academic performance. *Educ. psychol. Measmt.*, 1962, 22(4), 785-789.—"The results of the study are interpreted as supporting the initial hypothesis that significant improvements in predicting college grades are made when data from each originating high school are treated separately."—*W. Coleman*.

7190. Kitano, Harry H. L. (U. California) Changing achievement patterns of the Japanese in the United States. *J. soc. Psychol.*, 1962, 58(2), 257-264.—A study of achievement through grade point averages and social participation through membership in organized school activities was made on Japanese high school students in the United States. The data indicate a gradual drop in achievement by year from 1941 through 1959. Conversely, social participation has increased for this group, especially among the females. The findings were interpreted to indicate (a) the role of acculturation whereby the Japanese group through several generations in the United States becomes acculturated to the prevailing norms of the larger society, even if the behavior means acculturating "downward" in school achievement and (b) the opportunities available in the high school social system whereby the Japanese student because of increased opportunities to participate socially in the high school system is changing from emphasis on achievement to one on social participation.—*Author abstract*.

7191. Krippner, S. (Kent State U.) Sex, ability and interest: A test of Tyler's hypothesis. *Gifted Child Quart.*, 1962, 6(3), 105-110.—Tyler hypothesized that vocational interest was related to mental ability in boys only. To test this, 357 7th and 8th graders were grouped as high or low achievers on the basis of scores on the Iowa Every Pupil Test (IEP) and as high or low capacity on the basis of scores on the Primary Mental Abilities Test (PMA). A scholastic and vocational interest questionnaire was administered, too. High IEP and PMA boys differed significantly from the low on all items on the questionnaire. High IEP girls differed from low on 2 items only, but high PMA girls differed from the low on no items. These data are offered in support of the hypothesis.—*N. M. Chansky*.

7192. Kundu, Ramanath. (Calcutta, India) An investigation in the prediction of school success. *Indian J. Psychol.*, 1962, 37(2), 75-83.—First-order correlations with S grades and with final achievement in secondary school, and multiple correlation with final achievement, are presented for 3 types of intelligence test. Ss were 58 students, 11-17 years of age. Significant positive correlations were generally found for a test of selected Terman-Merrill items and a locally devised, omnibus verbal-quantitative test. A combination of these 2 intelligence tests appeared to be an effective predictor of school achievement at this level.—*J. T. Cowles*.

7193. Lang, G., Sferra, A. G., & Seymour, M. Psychological needs of college freshmen and their academic achievement. *Personnel Guid. J.*, 1962, 41(4), 359-360.—Using the Edwards Personal Pref-

erence Schedule to determine needs, the EPPS variables can differentiate between low and high achieving freshmen.—*S. Kavrick*.

7194. Littig, Lawrence W., & Yeracaris, Constantine A. (U. Buffalo) Academic achievement correlates of achievement and affiliation motivations. *J. Psychol.*, 1963, 55(1), 115-119.—Academic achievement level, n Achievement scores, and n Affiliation scores were obtained from a probability sample of 190 men and 206 women residing in a small upstate New York community as part of a study of the effects of community-wide educational television on attitudes toward education. Need Achievement was positively related to academic achievement among men but not among women. Need Affiliation was not related to academic achievement for either sex. Implications were drawn from these findings regarding: (a) the validity of the thematic apperceptive measure of n Achievement, (b) the relevance of n Achievement to academic success.—*Author abstract*.

7195. Mitchell, Blythe C. (Harcourt, Brace & World Inc.) The Metropolitan Readiness Tests as predictors of first-grade achievement. *Educ. psychol. Measmt.*, 1962, 22(4), 765-772.—The Metropolitan Readiness Tests had predictive validities ranging from .61 to .63 with the 4 subtests of the Metropolitan Achievement Battery. The data were obtained from 1170 1st-grade students in a Virginia school system.—*W. Coleman*.

7196. Mitra, S. K. Validity of medical selection tests. *J. voc. educ. Guid.*, Baroda, 1961, 7(3), 113-124.—Analysis of a battery of psychological tests ("g," abstract reasoning, English usage, science achievement, etc.) administered to 50 students attending Christian Medical College, Vellore, India, where the criterion was the average of 8 examination marks from the first year's work. Best predictors were a speeded test of general ability, biology, and English usage. R of .7 was obtained. Factor analysis showed that much more than scholastic aptitude was involved in medical school success in this study.—*W. L. Barnette, Jr.*

7197. Mogar, Robert E. (Pennsylvania State U.) Competition, achievement, and personality. *J. counsel. Psychol.*, 1962, 9(2), 168-172.—Females who show improvement on the block design test under competition, score higher on Succorance and Dominance on EPPS, the differences for males are not significant. Relations between scales and course grades are also indicated.—*E. R. Oetting*.

7198. Parsley, Kenneth M., Jr., & Powell, Marvin. (U. Alabama) Achievement gains or losses during the academic year and over the summer vacation period: A study of trends in achievement by sex and grade level among students of average intelligence. *Genet. Psychol. Monogr.*, 1962, 66(2), 285-342.—1080 students, grades 2 through 7, were given the California Achievement Test Batteries in the early fall, late spring, and early fall of the following year. Difference scores for over the academic year and summer were obtained, and the various hypotheses were tested by t at the .05 level of confidence. Significant differences between the sexes and between grade levels appeared in each of the 6 subject matter areas. In general, summer gains increase with age. Summer gains tend to be greater for reasoning and judgmental items than for

specific drill items (such as spelling and arithmetic fundamental which may show a loss.—*E. Borrowman*.

7199. Payne, David A. (Syracuse U.) **The concurrent and predictive validity of an objective measure of academic self-concept.** *Educ. psychol. Measmt.*, 1962, 22(4), 773-780.—An objective theory-based measure of academic self-concept, the Word Rating List (WRL), was devised for predicting academic achievement. With the exception of under-achievers, the WRL provided significant concurrent and predictive *r*'s with grade point average.—*W. Coleman*.

7200. Roby, A. Richard. **A study in the correlation of music theory grades with the Seashore Measure of Musical Talents and the Aliferis Music Achievement Test.** *J. Res. music Educ.*, 1962, 10(2), 137-142.—77 Ss who completed the 2-year course in music theory at the University of Minnesota showed "a strong relationship between Aliferis test scores and theory grades, fair relationship in the instances of the English Entrance and ACE tests, and no relationship between the theory grades and the Seashore battery scores."—*D. S. Higbee*.

7201. Saffirio, L. **Profitto scolastico di minorenni travati.** [Scholastic performance of deviant minors.] *Riv. Psicol. soc.*, 1962, 29(2), 187-195.—There is a significant differences between grades received by children in average classes and children in special classes in a center for reeducation of minors.—*L. L'Abate*.

7202. Seegars, James E., Jr. (U. Kentucky) **A further investigation of an M.M.P.I. scale for predicting college achievement.** *Personnel Guid. J.*, 1962, 41(3), 251-253.—Using female Ss, upperclassmen, and matched IQs, no significant results were found for the Hackett Z scale in predicting college achievement.—*S. Kavruck*.

7203. Sharp, Bert L. (Auburn U.) **College achievement: Its relationship to high school achievement experiences and test scores.** *Personnel Guid. J.*, 1962, 41(3), 247-250.—The study suggests that amount of study, measured in years which a student takes in a particular subject, has no significant effect or direct bearing upon the grade that a student makes in the same subject in the 1st year of college when level of performance on placement test is controlled. Significant relationships between placement test scores and college grades do exist.—*S. Kavruck*.

7204. Università di Firenze, Istituto di Psicologia. **Sulla prevedibilità del successo nella scuola primaria.** [On the prediction of success in the primary school.] *Florence, Italy: UFIP*, 1961. 109 p.—This pilot investigation focused on intensive study of a small sample demonstrates the effectiveness of an exhaustive analysis of 68 children (32 male and 36 female between ages of 5.3 and 6.2) in establishing criteria for prediction of scholastic success. A follow-up with a larger sample is called for. Authors and general topics of subreports included are: Gina F. Mori (psychological investigations on the prediction of scholastic difficulty and medical examinations); Anna Pinucci (family characteristics) such as socioeconomic factors and attitudes); Dora P. Giovannini (the school record—character, attendance, and intelligence); Corado Coradeschi (physical growth in relation to psychological characteristics);

Maria Gandi (Goodenough Draw-a-Man and "drawing of my family"); and finally an introduction and conclusion by Alberto Marzi, Director of the Institute. (53 ref.)—*G. M. Della-Piana*.

7205. Vick, Mary Catharine, & Hornaday, John A. (Greensboro Coll.) **Predicting grade point average at a small southern college.** *Educ. psychol. Measmt.*, 1962, 22(4), 795-799.—Predictors used were the Scholastic Aptitude Test, SCAT, Cooperative English Test, and high school rank. Part scores for the tests were included in computing a multiple R. However, the best predictors were high school rank and the English test. On a cross-validation study using these 2 predictors, an R of .63 was obtained.—*W. Coleman*.

EDUCATIONAL PERSONNEL

7206. Anderson, Harold H., & Anderson, Gladys L. (Michigan State U.) **Social values of teachers in Rio de Janeiro, Mexico City, and Los Angeles County, California: A comparative study of teachers and children.** *J. soc. Psychol.*, 1962, 58(2), 207-226.—The Anderson Incomplete Stories were administered to 7th-grade children in Rio de Janeiro, Mexico City, and continental United States. Teachers in the "Ideal Group" in Rio de Janeiro, Mexico, and Los Angeles County completed the stories in a way that was "best for all persons in the story"; teachers in the "control group" completed the stories as they thought 7th-grade children would finish them. Findings on 2 stories, generally consistent with hypotheses which grew out of research on dominative and socially integrative teacher-child relations, are interpreted in terms of cultural values and social creativity.—*Author abstract*.

7207. Bolman, Jr., Frederick de W. (Franklin & Marshall Coll.) **Placing America's highly skilled manpower: College faculty and administrators.** *Educ. Rec.*, 1962, 43(4), 295-300.—Problems in finding and distributing talent to meet the increasing educational demand in higher institutions are discussed. Dangers and opportunities are outlined in 5 steps: recognition of an opening, scouting, screening, interviewing, and selection. A new concept in placement of academic personnel is needed which should look not only toward problems of replacement, but also toward problems of growth.—*W. W. Meissner*.

7208. Dave, I. (Teachers' Coll., Udiapur, Rajasthan) **Personal problems of prospective teachers.** *J. voc. educ. Guid., Baroda*, 1961, 7(4), 194-200.—Analysis of the responses of 67 male and 20 female teacher trainees to the Mooney Problem Checklist (Adult Form). The author notes it required much persuasion to secure the cooperation of these Indian women. The article discusses the nature, distribution, and comparative status of the problems checked by these Ss (economic security was Rank 1).—*W. L. Barnette, Jr.*

7209. Deb, Maya. (Delhi, India) **A study of temperamental qualities necessary for teaching profession at the university level.** *Indian J. Psychol.*, 1962, 37(1), 39-44.—Results are presented from a questionnaire concerning the desirability of each of 25 temperamental qualities of an effective teacher. The questionnaire was distributed to the chief university administrator, deans of faculties, and heads of de-

partments of psychology and education in 33 universities in India. Respondents numbered 47 (27%) of this sample of about 175.—J. T. Cowles.

7210. Greene, James E., Sr. (U. Georgia) A comparison of certain characteristics of white and Negro teachers in a large Southeastern school system. *J. soc. Psychol.*, 1962, 58(2), 383-391.—Comparisons of white and Negro teachers in a large southeastern school system were based on the following data: personal and family background, 14 variables; training, 10 variables; experience, 13 variables; National Teacher's Exam (NTE) scores, 6 variables. In all NTE categories Negroes made reliably and markedly lower scores than whites, although Negroes reported higher levels of training and certification and had higher mean salaries than whites.—*Author abstract.*

7211. Kundu, Ramnath, & Banerjee, Debabrata. Some psychological aspects of college teachers' personalities: An experimental study. *Indian J. soc. Wk.*, 1961, 22(3), 247-252.—100 college teachers answered a 2-part questionnaire. There were 7 census items and 26 questions bearing on their personality. Results concerning such factors as self restraint at exciting situations, ease of picking up new acquaintances, and bidding orders to others are given in percentages.—R. Schaefer.

7212. Long, Nicholas J., Cook, Anne R., Evans, Ellis D., Kerr, Joan, Linke, Linda A., Neubauer, Barbara, & Payne, David C. (Indiana U.) Groups in perspective: A new sociometric technique for classroom teachers. *Bull. Sch. Educ. Ind. U.*, 1962, 38(6), 1-112.—A guide to the administration and use of the L-J Sociometric Test.—R. E. Schutz.

7213. Pace, Walter Thomas. (Wayne State U.) Profiles of personal needs and college press of Negro teacher trainees. *Dissert. Abstr.*, 1962, 22(10), 3748-3749.—*Abstract.*

7214. Sillers, Dan J. (U. Denver) Administrators' perceptions of discipline in selected institutions of higher education. *Dissert. Abstr.*, 1962, 22(11), 4076-4077.—*Abstract.*

7215. Steffire, B., & Leafgren, F. (Michigan State U.) Value differences between counselors and administrators. *Voc. Guid. Quart.*, 1962, 10(4), 226-228.—The senior author's Vocational Values Inventory was administered to 23 school administrators (all working for advanced degrees) and 40 counselors who were members of a guidance institute. The VVI is a forced-choice type inventory yielding 7 value measures: altruism, control, job freedom, money, prestige, security, self-realization. Rho was .86 for the 2 groups; the major difference was in the value of control which counselors ranked 5th and administrators ranked 3rd.—W. L. Barnette, Jr.

7216. Twyman, J. Paschal, & Biddle, Bruce J. (Oklahoma State U.) Role conflict of public school teachers. *J. Psychol.*, 1963, 55(1), 183-198.—This paper reports an empirical investigation of role conflict for public school teachers. Data were based on a comparison of cognitions held for selected teacher behaviors by members of 4 school related social positions. 98 teachers, 261 parents, 237 pupils, and 67 school officials were interviewed and their norms and expectations for "teachers in general" analyzed. Numerous cognitive disparities were found

for both norms and expectations. The greatest number of disparities occurred when comparing pupils with all other adults and when comparing parents with the professional interest groups (teachers and school officials). Most of the disagreements among positions centered on behaviors related to teacher self-indulgence, maintenance of order, and community participation.—*Author abstract.*

INDUSTRIAL & MILITARY PSYCHOLOGY

7217. Gagne, R. M. (Ed.) (Princeton U.) *Psychological principles in system development*. New York: Holt, Rinehart & Winston, 1962. xiv, 560 p. \$9.00.—A collection of 14 papers describing systematic application of psychological principles and techniques to man-machine system development. After a summary introduction of planning for inclusion of human components, separate chapters are devoted to such topics as: human capabilities and limitations, task description and analysis, selection and classification of personnel, aids to job performance, individual and team training, requirements for training devices, and teaching devices, and techniques for assessing human and system performance.—K. J. Hartman.

7218. Human Resources Research Office. *HumRRO work program: Fiscal Year 1963*. Washington, D. C.: HumRRO, 1962. 109 p.—10 functional areas in which the Human Resources Research Office will operate in 1963 are: equipment maintenance, equipment operation, individual combat skills, team combat skills, leadership, decision making, motivation and stress, remote area operations and language, training management, and training technology. Definitions, tasks, exploratory studies, and basic research in each area are outlined. Suggestions for additional research to improve Army training are invited.—R. Tyson.

7219. Oshanin, D. A. *Psychologia a badanie układow automatycznych*. [Psychology and the study of automatic systems.] *Psychol. wych.*, 1962, 5(3), 261-280.—The article discusses some of the psychological implications of automation. The basic error committed by industrial psychologists is that of reducing the individual to a "information-decision-action" model. The factor of human "multi-stimuli" should be considered in the design and operation of automatic systems.—H. Kaczkowski.

7220. *Personnel Practice Bulletin. Index: 1945-61. Personnel Pract. Bull.*, 40 p.—Articles appearing during the years indicated are indexed under subject matter headings and by author. Organizations which have contributed articles and those which have participated in research are listed.—J. L. Walker.

7221. Sells, S. B. (Texas Christian U.) *La investigación astronáutica y algunas de sus implicaciones en problemas humanos*. [Astronautical research and some of its implications for human problems.] *Rev. Psicol. gen. apl.*, 1961, 17(Whole No. 58), 241-257.—The "space age" is not potential, but already present, and will have major impact upon humanity. This impact will be scientific, legal and political, economic, educational, cultural, psychological, and even biological. "Liberated from gravity, man could develop capacities not conceived of before now." (15 ref.)—E. B. Page.

VOCATIONAL GUIDANCE & APTITUDES

7222. Barry, Ruth, & Wolf, Beverly. Epitaph for vocational guidance: Myths, actualities, implications. New York: Teachers College Columbia Univ., 1962. ix, 241 p. \$4.75.—Part I analyzes myths regarding: the adequacy of theory underlying vocational guidance, the use of tests to measure significant facets of personality, the adequacy of current schemes of classifying occupations, the significance of vocational information, and realism and reality testing in vocational choice. Part II considers actualities of significance to vocational guidance including: increased population; urbanization; and emergence of larger and more complex units within business, industry, and education; phenomena within the labor force such as automation, the labor force pyramid, the working woman, the retired worker, increased leisure, and changing roles within our society; problems confronting special groups such as adolescents, unneeded workers, and member of minority groups; and changes in our values regarding work. Part III is concerned with the implications of these changes for future vocational guidance.—C. H. Miley.

7223. Geist, Harold. A five year follow-up of the Geist Picture Interest Inventory. *Calif. J. educ. Res.*, 1962, 13(5), 195-208.—5 years after taking the GPII, all locatable testees who had taken it were queried as to their occupational history. Answers were returned by 148 of the original United States mainland, 115 of 332 Hawaii, and 26 of 340 Puerto Rico testees. Comparison of occupational history with earlier interest choices led to the conclusions: (a) "In the mechanical, scientific and outdoor areas, practically all the testees did not engage in any work outside their respective area." (b) "Evidently those testees who are currently in the kind of work for which they originally expressed the greatest inventoried interest do not shift into different kinds of jobs in the early stages of their occupational career." (c) "According to the criteria of current work and/or major in college, the clerical, mechanical, scientific, computational, and artistic scales are highly valid; the outdoor, literary, and social service scales moderately so; and the persuasive and dramatic scales not at all valid." (d) There appears to be profile independence among the various occupational groups. (e) The percentages of youngsters in the Puerto Rican and Hawaiian groups who went into the professions far outstrips those on the mainland.—T. E. Newland.

7224. Hadley, Robert G., & Levy, William V. (VA Cent., Los Angeles, Calif.) Vocational development and reference groups. *J. counsel. Psychol.*, 1962, 9(2), 110-114.—A theoretical discussion of the role of reference groups in vocational development, calling attention to the relationship of these concepts to Super's theory.—E. R. Oetting.

7225. Hutson, P. W. (U. Pittsburgh) Vocational choices, 1930 and 1961. *Voc. Guid. Quart.*, 1962, 10(4), 218-222.—A replication of the author's 1930 study in 1961 where career choices of high school students are compared along with IQ estimates and reasons for career choice. Data for 1961 involve 2744 students from 24 schools in western Pennsylvania. The preponderance of choices for professional occupations is discouragingly apparent (38-65%, depending on high school level and sex). This suggests

that guidance for vocational choice has not become more effective over these 3 decades. Regarding intellectual level, the 1961 data suggest that students choose occupations with very little regard for this particular aptitude and, compared to 1930 data, there is little change. The author concludes that many of the 1961 students are remaining in the fantasy stage of vocational selection.—W. L. Barnette, Jr.

7226. Kinnane, John F., & Suziedelis, Antanas. (Catholic U. America) Work value orientation and inventoried interests. *J. counsel. Psychol.*, 1962, 9(2), 144-148.—The Work Values Inventory is highly related to SVIB categories. "... values can be more meaningfully related ... [when] drawn from the vocabulary of the world of work."—E. R. Oetting.

7227. Linares Maza, A. (Málaga, Spain) Problemas de vocación y orientación profesional. [Problems of vocational selection and guidance.] *Rev. Psicol. gen. apl.*, 1961, 16(Whole No. 58), 287-305.—Extensive study of vocational interests is said to be of maximum psychological, scientific, and practical value. Centers in Spain are urged to prepare appropriate investigatory tests and questionnaires, and explanatory pamphlets, films, and other media. (26 ref.)—E. B. Page.

7228. McCarthy, Mary Kieran, & McCall, Raymond J. (Briarcliff Coll.) Masculinity faking on the FM scale of an interest inventory. *Personnel Guid. J.*, 1962, 41(4), 346-349.—The Strong Vocational Interest Blank for Women was given twice to 40 religious women to determine the effect of faking masculinity on the FM scale. The mean of the FM standard score was lowered significantly. 15 other occupational scale scores were also changed significantly on the second taking. The Lawyer scale showed the greatest increase, the Elementary Teacher scale, the greatest decrease.—S. Kavruk.

7229. Mehta, H. P. (Ministry Labour, New Delhi) Work values and guidance. *J. voc. educ. Guid.*, Baroda, 1961, 8(1), 1-12.—Presidential Address at the 6th Annual Conference of the All-India Educational and Vocational Guidance Association, September 1961. Research on basic issues of guidance, apart from test construction, is in an infantile stage in India. The work values of the individual also greatly effect productivity, as do interests and abilities. Several general dimensions of work values are outlined, mostly based on the author's observations of workers in government offices (examples: initiative, identifying with the agency's objectives). Several American researches are cited but with the admonition that these should be checked under Indian conditions.—W. L. Barnette, Jr.

7230. Overs, R. P. (Cleveland, O., Rehabilitation Centr.) Vocational counseling: Miscellaneous impressions of the informal system. *Voc. Guid. Quart.*, 1962, 10(4), 190-195.—A subjective, sociological analysis of the salient features in the behaviors of the vocational counselor in terms of his adaptations to the formal structure of the job. Success with clients is an important goal. Counselors form a very close-knit group and few trade secrets are withheld. One manifestation of status is who has access to what records along with framed certificates on the wall. Private phones and tape recorders also provide status symbols. One of the myths of counselors is the feeling they have more influence on lives of clients than

they actually have. Confidentiality among counselors concerning clients is typically ignored and is used for self-improvement of status. More awareness of these informal relationships is essential to counselor effectiveness.—*W. L. Barnette, Jr.*

7231. Stodkin, Bruce Carlyle. (U. Buffalo) An empirical investigation of two basic assumptions of a theory of vocational choice. *Dissert. Abstr.*, 1962, 22(7), 2469-2470.—*Abstract.*

7232. Super, D. E. (Columbia U.) The self concept in vocational development. *J. voc. educ. Guid.*, Baroda, 1961, 8(1), 13-29.—A paper presented at the 6th Annual Conference of the All-India Educational and Vocational Guidance Association, September 1961, wherein the author traces the historical development of the concept of vocational development as the implementation of a self concept, the roots of which go back to the work of Carter and Bordin in 1940 and 1943, respectively. The basic elements of a self concept theory are: self-exploration, self-differentiation, identification, role playing, reality testing, translation of the self-concept into occupational terms, and the final implementation of the self-concept (as on the 1st job).—*W. L. Barnette, Jr.*

OCCUPATIONAL & CAREER INFORMATION

7233. Chatterjea, R. G., & Mullick, Jaladhar. Interest pattern of persons engaged in engineering and medical profession. *Indian J. soc. Wk.*, 1961, 22(3), 209-215.—80 engineers and 110 physicians were surveyed using a questionnaire of the L-I-D type. Items included 48 occupations, 41 amusements, 41 curricular subjects, 19 activities, and 23 personality types. L-I-D percentage data are reported and it is concluded that both groups differ so far as activities and personality types are concerned, and show resemblance in the remaining 3 categories.—*R. Schaef.*

7234. Eckerson, A. B. (United States Dept. Labor) The new "Dictionary of Occupational Titles": Its implications for guidance. *Voc. Guid. Quart.*, 1962, 10(4), 202-204.—Summary article about the 3rd edition which goes to press in 1963 where obsolete jobs have been deleted and approximately 6000 new job titles will appear. The number of professional and technical workers has doubled in recent years and the new edition will reflect such changes. Volume 1 will list job definitions alphabetically and classified by a 6-digit code. This code will also identify the section in Volume 2 where worker traits and related requirements are stated. Volume 2, being job-oriented, has many vocational counseling applications, but it is also individual-oriented to indicate with what the actual work is involved (as with people, things, data, etc.). Volume 2 will therefore have both placement and guidance uses.—*W. L. Barnette, Jr.*

7235. Katz, Fred E., & Martin, Harry W. (U. Missouri) Career choice processes. *Soc. Forces*, 1962, 41(2), 149-154.—Occupational choice may be viewed "as the cumulative product of a series of specific acts, which may or may not be directly focused upon a deliberate career choice." Data from student nurses studied from admission to graduation support this view in that one's decision to become a nurse, for example, may be based upon the desire to remain near young, eligible physicians or near a friend of the same sex.—*A. R. Howard.*

7236. Kriesberg, Louis, & Beale, Lathrop V. (Syracuse U. Youth Development Cent.) Career specifications among medical students. *J. Hlth. hum. Behav.*, 1962, 3(3), 204-212.—In order to determine why more medical students decide to specialize rather than go into research, 1086 students at various stages in medical school were interviewed. "... cognitive learning and rational consideration of one's own resources, of the nature of medical practice, and of esteemed career alternatives are of more importance than learning new values about medical practice. The data do not permit proving this thesis but they are consistent enough to suggest that at least for the population examined, changes in career-relevant values follow rather than lead changes in career choices."—*L. A. Ostlund.*

7237. Miller, Sutherland, Jr. (Columbia Coll.) Relationship of personality to occupation, setting, and function. *J. counsel. Psychol.*, 1962, 9(2), 115-121.—A biographical questionnaire including items from the MMPI and the EPPS is used to measure 13 personality characteristics, related differentially to job setting and job function.—*E. R. Oetting.*

7238. Osipow, Samuel H. (Pennsylvania State U.) Perceptions of occupations as a function of titles and descriptions. *J. counsel. Psychol.*, 1962, 9(2), 106-109.—Using semantic differential, differences in attitude towards job titles are found on evaluative and potency dimensions. These may be reduced by providing occupational descriptions.—*E. R. Oetting.*

7239. Rahudkar, Wasudeo. (Coll. Agriculture, Nagpur, India) The relationship of certain factors to the success of village level workers. *Rural Sociol.*, 1962, 27(4), 418-427.—A village level worker serves 10 villages as a joint agent for development activities and as "guide, philosopher, and friend" to the inhabitants. The most effective workers were aged 31-40, high school graduates (but not college), married, and of rural background.—*H. K. Moore.*

7240. Rauner, Therese M. (Ladycliff Coll.) Occupational information and occupational choice. *Personnel Guid. J.*, 1962, 41(4), 311-317.—The study sought to determine relationships between amount of knowledge of chosen occupations and curriculum, class, age, high school, and occupation chosen. Ss included 186 college juniors and seniors. Significant relationships were found between mental ability and occupation chosen or between high school and "knowledge." The need for more information about occupations was indicated.—*S. Kavruck.*

7241. Simmons, Dale D. (Oregon State U.) Children's rankings of occupational prestige. *Personnel Guid. J.*, 1962, 41(4), 332-336.—4th-grade boys show a high degree of agreement with adults as to the prestige of occupations ($\rho = +.868$). With girls, agreement does not develop until Grade 8. Group prestige hierarchies show stability over a 2-month period. Occupations ranked high in prestige tend to be ranked high in interest.—*S. Kavruck.*

SELECTION, PLACEMENT, APPRAISAL

7242. Bayroff, A. G. Methods for improving enlisted input: Status report. *USA Personnel Res. Off. OCRD. tech. res. Rep.*, 1962, No. 1125. 15 p.—To meet the continuing requirement under Congress-

sional legislation and Department of Defense policies for procedures to screen armed services input, major research emphasis during 1962 was placed on: (a) evaluation of an interim differential aptitude measure—Army Qualification Battery (AQB-1); (b) standardization of new tests for the Army Qualification Battery; (3) construction and standardization of a differential aptitude battery for the Women's Army Corps—the Women's Army Classification Battery (WACB)—and standardization of new forms of the Armed Forces Women's Selection Test (AFWST 5-6) and Women's Enlistment Screening Test (WEST 3-4) in collaboration with the Air Force; (d) exploring feasibility of short, limited-range tests to predict pass-fail at the 31st percentile on AFQT, current standard for enlistment in the Army; (e) devising a reliable method of estimating mental abilities in the civilian manpower pool eligible for military service; and (f) planning for sampling current AFQT data. New forms of the AQB were prepared for implementation on July 1st, 1962. Research findings led to operational use of the women's tests, AFWST 5-6, WEST 3-4, and WACB in late 1961.—A. J. Drucker.

7243. Demaree, Robert G., Marks, Melvin R., Smith, Walter L., & Snyder, Melvin T. (Matrix Corp.) Development of qualitative and quantitative personnel requirements information. *USAF AMRL tech. docum. Rep.*, 1962, No. 62-4. v, 82 p.—This report describes the nature of, purpose, and method for developing Qualitative and Quantitative Personnel Requirements Information (QQPRI). The report is intended to aid Air Force, and contractor personnel in the development and use of QQPRI. The 1st section of the report covers the nature and scope of QQPRI and relationship of QQPRI to system development. The 2nd section describes the general constraints within which QQPRI is developed. Such constraints include technical weapon system constraints as well as policies on Air Force personnel, training, and manning. The 3rd and largest section covers QQPRI development techniques such as task analyses, estimation of performance time, establishing Air Force positions and determining the relation of these to existing Air Force specialties. The 4th section covers the QQPRI report, its preparation and uses. (21 ref.)—*USAF AMRL*.

7244. Doll, R. E., & Longo, A. A. (USN. School Aviation Medicine) Improving the predictive effectiveness of peer ratings. *Personnel Psychol.*, 1962, 15(2), 215-220.—Low scores on peer ratings of leadership potential have been shown to predict failure to complete the Naval Air Training Program. It is hypothesized that low peer ratings awarded by reason of "anti-social" personality traits are invalid as predictors of training failure and reduce the predictive effectiveness of low peer ratings. Of 278 low-rated cadets, the 73 identified as having been low-rated for "anti-social" reasons included significantly fewer failures to complete training than did men low-rated for other reasons.—A. S. Thompson.

7245. Dronkers, P. L. Appraisal of personnel for staff development and salary review: A European experience. *Personnel pract. Bull.*, 1962, 18(4), 1-14.—The Director of the International Personnel and Industrial Relations Department of N. Y. Philips (Netherlands) describes and discusses 2½

years of midyear appraisal and progress review. Its ultimate value is dependent upon the people who use it.—J. L. Walker.

7246. Elson, Jo Ann. Abstracts of personnel research reports: III. 1962. *USAF PRL tech. docum. Rep.*, 1962, No. 62-27. iii, 8 p.—This volume includes abstracts of the 27 technical documentary reports issued by the 6570th Personnel Research Laboratory in 1962. They cover studies in selection, classification, and utilization of Air Force personnel, systematizing information flow in support of personnel planning; methods of describing, evaluating, and structuring Air Force jobs; and development of procedures for improving the quality of Air Force personnel.—*USAF PRL*.

7247. Helme, W. H., & Katz, A. Attrition reduction task: Status report. *USA Personnel Res. Off. OCRD. tech. res. Rep.*, 1962, No. 1124. 13 p.—Improvement of procedures for identifying men who will succeed in training for critical jobs and technical specialties, the primary objective of the Attrition Reduction Task, has been expanded during 1962 through pursuit of 3 separate, but related, research approaches. Continuing evaluation of operational effectiveness of Army Classification Battery measures and aptitude area composites, data on prediction of success collected in over 100 military occupational specialties (MOS) formed the basis for intensive research on the problems of differential classification and manpower allocation. A number of exploratory investigations were conducted on problems of attrition in operational settings, and a pilot study was designed to analyze motivational and personality factors related to this problem. A study was also undertaken to determine whether, in event of mobilization, women could be used in job areas where their assignment is not now authorized and where critical manpower shortages are likely to occur; findings established a number of suitable jobs in electronics and electrical maintenance MOS.—A. J. Drucker.

7248. Helme, W. H., & Waters, L. K. New classification techniques: Status report. *USA Personnel Res. Off. OCRD, tech. res. Rep.*, 1962, No. 1126. 19 p.—New classification techniques research is concerned with maintaining and improving the effectiveness of the Army Classification Battery (ACB)—with emphasis on developing measures of human factors not yet provided by the ACB, including measures of physical proficiency, techniques for identifying career-oriented personnel during initial classification, and measures to evaluate the potential usefulness of Category 4 enlisted men. Updated new alternate forms of the Automotive Information and Army Clerical Speed tests of the ACB became operational in January, 1962. A tool knowledge test and 2 trade knowledge tests, designed to afford better differential prediction within the mechanical domain, have progressed to the validation stage. 2 information tests—in biochemistry and chemistry—have been constructed as a means of differentiating performance in medical and chemical military occupational specialties (MOS) from other MOS now selected in the general technical aptitude area. Reenlistment prediction studies are also described.—A. J. Drucker.

7249. Hogue, J. P., Otis, J. L., & Prien, E. P. (U. Montreal, Canada) Assessments of higher-level personnel: VI. Validity of predictions based on

projective techniques. *Personnel Psychol.*, 1962, 15 (3), 335-344.—A factor analysis of predictor-criterion scores revealed that clinicians analyzing projective material did not evaluate in the same psychological space as supervisors providing performance evaluations. Separate analyses indicated that predictor and criterion raters used the rating form consistently and obtained factors which are similar in name. Correlations of predictor ratings with paper-and-pencil test scores tend to confirm the constructs implied by the predictor factors. Scores on the Guilford-Zimmerman reflected personality measures similar to those obtained from the analysis of projective material. However, the Edwards Personal Preference Schedule appeared to measure something considerably different from that measured or revealed by the analysis of projective materials.—A. S. Thompson.

7250. Hoisman, Alan Jay. (Purdue U.) **Validation of a personnel test for executive selection.** *Dissert. Abstr.*, 1962, 22(7), 2458.—Abstract.

7251. Horváth, I. G. (Budapest, Hungary) **Doležitost psychologických skúšok pri posudzovaní spôsobilosti v doprave.** [The importance of psychological examinations in investigating ability in transport.] *Psychol. Stud.*, Bratislava, 1961, 3, 135-156.—Experiences in Hungary show that information gained from general medical examinations, from examination of the physiology of perception, and from personality tests, allow conclusions as to the prediction in practice with a great probability. Russian & English summaries—V. Břicháček.

7252. Huse, E. F. (Raytheon Corp.) **Assessments of higher-level personnel: IV. The validity of assessment techniques based on systematically varied information.** *Personnel Psychol.*, 1962, 15 (2), 195-205.—Several types of assessment ratings were made of 1st-level superiors from a variety of companies. Ratings were based on various combinations of interview, test, and report data. The following conclusions were drawn: (a) the relative validity of predictor ratings based on psychometric data appeared to be higher than those based on the interview or projective tests; (b) ratings based on complete information are not, in general, of higher validity than those based solely on psychometric tests; (c) most of the predictor-criterion agreement was based more on general impressions than on specific variables.—A. S. Thompson.

7253. Huttner, L., & O'Malley, T. R. (Ludwig Huttner Ass., Minneapolis) **Let them know!** *Personnel Psychol.*, 1962, 15(2), 179-186.—Effective and ineffective salesmen were compared on a number of variables. Differences in rated performance were not related to background data, manner of selection, nor manager differences in standards. It was found, however, that ineffective salesmen rated themselves as high as did effective salesmen although they were not rated equally by their manager. It is important for supervisors to communicate their evaluations to subordinates.—A. S. Thompson.

7254. Kirchner, W. K., & Reisberg, D. J. **Differences between better and less-effective supervisors in appraisal of subordinates.** *Personnel Psychol.*, 1962, 15(3), 295-302.—Using a behavioral item rating scale, ratings were obtained on 3 levels of subordinates and 2 levels of supervision. It was

found that the better supervisors were more discriminating in their ratings of subordinates and tended more to regard independent, forward looking action by subordinates as important while the poorer supervisors paid more attention to loyalty, getting along, cooperation.—A. S. Thompson.

7255. Medland, F. F., Hammer, C. H., & Frankfeldt, E. **Selection of NCO leaders: Status report.** *USA Personnel Res. Off. OCRD tech. res. Rep.*, 1962, No. 1127. 12 p.—The NCO Leaders Task is conducting parallel research programs to develop the initial psychological predictors of leadership potential and the evaluation system for identifying competent leaders for senior NCO positions. The Army NCO academy system has been selected as the framework for research on measurement of leadership performance. An experimental battery, consisting of 6 non-cognitive measures, was field-validated on 400 examinees completing basic combat training. On the basis of preliminary analysis and research information, 1 of the experimental measures—the peer rating of acceptance as a leader—has been placed in operational use at all Army training centers. Predictive effectiveness of the experimental test battery is being evaluated in a longitudinal study against (a) measures of leadership performance in Advanced Individual Training (AIT) and (b) on-the-job performance after about 2 years of active military service. Data collection procedures and potential end-products of the research effort are described.—A. J. Drucker.

7256. Patin, J., & Nodiot, S. **Le Test Mécanique de P. Rennes.** [The P. Rennes Mechanical Test.] *Bull. Cent. Etud. Rech. Psychotech.*, 1962, 11(1), 63-97.—This test was found to be useful in selection of young male adolescents and adults for vocational and technical training. Reliability and validity, particularly in drawing and technology, were found to be satisfactory. When tried on a female sample, the test was found to be too complex, and not as discriminatory as in the case of the male sample.—V. Sanua.

7257. Peres, S. H., & Garcia, J. R. (Sandia Corp., Albuquerque, N. M.) **Validity and dimensions of descriptive adjectives used in reference letters for engineering applicants.** *Personnel Psychol.*, 1962, 15(3), 279-286.—This study was conducted in a nuclear research and development laboratory to ascertain (a) if statements used in letters of reference could discriminate between effective and ineffective engineers and (b) if these statements fell into factor patterns. From these, 170 adjectives were obtained which yielded 5 factors: Cooperation-Consideration, Mental Agility, Dependability-Reliability, Urbanity, and Vigor. Mental Agility was most discriminating and Cooperation-Consideration the least.—A. S. Thompson.

7258. Prien, E. P. (Western Reserve U.) **Assessments of high-level personnel: V. An analysis of interviewers' predictions of job performance.** *Personnel Psychol.*, 1962, 15(3), 319-334.—In a personnel appraisal program involving both sales and nonsales occupations, psychologists were able to differentiate individuals through interviews on 2 general dimensions: Personal Relations Effectiveness and Intellectual Functioning. Their predictions of potential performance were related to supervisors' ratings of actual performance only on the Intellectual Function-

ing dimension for the nonsales occupation group. The study showed that psychologists can predict the potential job performance of individuals on the basis of information and impressions obtained in an interview and that the interview has some validity for the assessment of higher-level personnel.—A. S. Thompson.

7259. Prien, E. P., & Liske, R. E. (Western Reserve U.) **Assessments of higher-level personnel: III. Rating criteria: A comparative analysis of supervisor ratings and incumbent self-ratings of job performance.** *Personnel Psychol.*, 1962, 15(2), 187-194.—1st- and 2nd-level supervisors' ratings of subordinate job performance correlate to a greater degree than either supervisors' ratings when correlated with subordinate self-ratings of job performance. 1st-level supervisors' and subordinates' perceptions of performance criteria are consistent at a general level and to some degree in terms of specific concepts. Conceptual agreement is in the specific area of the Intellectual Effectiveness Factor of the criterion complex and lack of agreement with respect to the Personal Relations Effectiveness Factor.—A. S. Thompson.

7260. Rimland, Bernard, & Steinemann, John H. **Development and standardization of Forms 3 and 4 of the NROTC Contract Student Selection Test.** *USN Bur. Naval Personnel tech. Bull.*, 1962, No. 62-11. ii, 8 p.—Forms 3 and 4 of the Contract Student Selection Test (CSST) were designed to replace Forms 1 and 2 as the scholastic aptitude measure used in the selection of students for the Naval Reserve Officer Training Corps. "Data from the operational administration of Forms 3 and 4 in the fall semester of 1961 indicate that the two forms may be used interchangeably. The new forms appear to be satisfactory in terms of their Kuder-Richardson reliabilities (.87 and .89) and in terms of their correlations (.80 and .79) with the Scholastic Aptitude Test." Discrimination among lower ability applicants will be facilitated. "Preliminary indications suggest that Forms 3 and 4 will equal or exceed the validities of Forms 1 and 2. Tables are provided to permit conversion of CSST Form 3 or 4 total scores to Navy Standard Scores, percentiles, or to equivalent [CEE] SAT Scores. The SAT conversion tables will reduce the need for testing with the CSST at those colleges where SAT Scores are already on record."—N. Earl.

7261. Rubin, Barbara, & Parker, James W. **The Self-Reported Motivational Questionnaire (SMQ): A preliminary validation study with a population of enlisted submariner volunteers.** *USN Med. Res. Lab. Rep.*, 1961, 20(2, Whole No. 348), 18 p.—The construction and keying of a Self-Reported Motivational Questionnaire (SMQ) are described. With enlisted Submarine School volunteers, the scores are related to attrition in Submarine School. These relationships are presented with several breakdowns such as rated/nonrated and high/low scores on the Basic Battery Test, and are described in detail. The discussion of the reliability and validity of the SMQ concludes that the scores are usefully reliable, and that they are usefully valid for that portion of the population whose aptitude score (Arithmetic and Mechanical) is below the median for the total population. The final academic rank order of the 1100 Submarine School graduates studied is significantly correlated

with the SMQ only for the "low" aptitude group.—*USN MRL.*

7262. Tomlinson, Helen, & Elson, Jo Ann. **Abstracts of personnel research reports: II. 1954-1957.** *USAF PRL tech. docum. Rep.*, 1962, No. 62-25. 42 p.—Abstracts are assembled of 145 technical documentary reports issued by the Air Force's Personnel Research Laboratory from January 1954 through December 1957. They cover research projects in selection, classification, and utilization of Air Force personnel. The reports are indexed by personal author, corporate author, and project number.—*USAF PRL.*

7263. Tomlinson, Helen, & Elson, Jo Ann. **Abstracts of personnel research reports: II. 1958-1961.** *USAF PRL tech. docum. Rep.*, 1962, No. 62-26. 33 p.—Abstracts are assembled of 126 technical documentary reports issued by the Air Force's Personnel Research Laboratory from January 1958 through December 1961. They cover research projects in selection, classification, and utilization of Air Force personnel. The reports are indexed by personal author, corporate author, and project number.—*USAF PRL.*

7264. Uhlmann, F. W. (Wayne State U.) **A selection test for production machine operators.** *Personnel Psychol.*, 1962, 15(3), 287-293.—An apparatus which stimulates a packaging process was administered, as a test, to 2 groups: applicants and employees. The employees scored significantly higher than the applicant group. A validity coefficient of .44 with proficiency ratings was obtained. The test has good face validity.—A. S. Thompson.

7265. Waters, L. K., & Wherry, R. J., Jr. (USN School Aviation Medicine) **A note on alternative methods of scoring a forced-choice form.** *Personnel Psychol.*, 1962, 15(3), 315-317.—"A numerical self-applicability scale was appended to each statement in a series of forced-choice pairs. The pairs were scored by 3 methods and the validity of each method determined. The more traditional method of scoring forced-choice pairs yielded a substantially greater validity coefficient."—A. S. Thompson.

7266. Wiskoff, M. F. **Selection of anti-tank missile gunners: Status report.** *USA Personnel Res. Off. OCRD tech. Res. Rep.*, 1962, No. 1128. 17 p.—The Army Personnel Research Office conducted a small scale study on 36 trainees, the results of which were used in the selection of gunner trainees for 8 classes beginning in January 1960 in the operation of SS-10 weapons systems. 3 tests—Pattern Analysis of the Army Classification Battery, Co-ordinate Movements, and Locations—were chosen as an interim selection battery. In absence of actual firing records, an administrative recommendation served as criterion for test selection. For a 2nd study using data from the 8 classes, more realistic criteria of gunner performance were developed through consideration of varying difficulty of environmental conditions at time of missile firing. Statistical analysis is currently under way to identify the most effective predictors for a final selection battery.—A. J. Drucker.

TRAINING

7267. Abrams, Alvin J. **Experimental training of sonarmen in the use of electronic equipment: I.**

Diagnostic testing of basic sonar students. *USN Bur. Naval Personnel tech. Bull.*, 1962, No. 62-1. iv, 15 p.—During the period of December 1960 through February 1961, 79 sonar students were tested in their use of electronic test equipment. The test used was constructed to identify the specific procedural errors which accounted for inaccurate measurements. "The main conclusion of this search was that while a majority of the students mastered most of the procedural steps, few demonstrated the knowledge and experience necessary to perform over-all checks without error."—*N. Earl.*

7268. Abrams, Alvin J., & Pickering, Edward J. A check list for use by a trainer-evaluator to assess sonarman proficiency on test equipment. *USN Bur. Naval Personnel tech. Bull.*, 1962, No. 62-7. iv, 19 p.—"The purpose of this pilot study was to develop a proficiency measure for the sonarman rating which could be used effectively by operating forces in an on-going routine evaluation of maintenance proficiency. Although the instrument designed is intended for only the sonarman rating, the concept upon which it is based provides for the development of similar instruments for other electronic ratings."—*N. Earl.*

7269. Abrams, Alvin J., & Pickering, Edward J. Experimental training of sonarman in the use of electronic test equipment: IV. Diagnostic test results for advanced sonar students. *USN Bur. Naval Personnel tech. Bull.*, 1962, No. 62-9. vii, 36 p.—"This is the fourth report of a series covering various phases of a research program directed toward improving the training of sonarman in the use of standard electronic test equipments." The 1st 3 reports (see 37: 7267, 7279, 7280) were concerned with the improvement of test equipment training in the basic sonarman courses. This report presents the results from diagnostic testing of fleet-experienced sonarman.—*N. Earl.*

7270. Anderson, Adolph V. Training, utilization, and proficiency of Navy electronics technicians: I. General considerations. *USN Bur. Naval Personnel tech. Bull.*, 1962, No. 62-5. v, 30 p.—A major survey of the training utilization, and proficiency of Navy electronics technicians (ETs) was conducted during the 1st ½ of 1961. A series of 7 reports on the results of this survey is planned. The principal aim of this 1st report in the series is to present a detailed background against which to evaluate and interpret the results to be presented later. Random samples of 309 ETs from the Pacific Fleet and 106 ETs from the western United States commands were interviewed and tested. 8 data collection instruments are described and illustrated in the appendices. Descriptive data presented for the 2 samples of ETs included information on age, education, classification test scores, billet and assignment types, training received, and stated training needs. Included in this report is a brief statement of the intended content of each of the reports in the series.—*N. Earl.*

7271. Blake, Robert R., Mouton, Jane Srygley, & Fruchter, Benjamin. (U. Texas) A factor analysis of training group behavior. *J. soc. Psychol.*, 1962, 58(1), 121-130.—The study reports and identifies 3 distinct dimensions of operation within a training group, as a first approach to quantitative

analysis and systematic generalization regarding the psychological dimensions of training groups. 160 male Ss composed into 20 groups of 8 each, who were participating in 5 training laboratories conducted according to a standard design, provided 11 different scale reactions describing their perceptions of group activities on completion of each of 13 training group sessions per laboratory. The 3 dimensions identified through a factor analysis were defined as cohesion, group accomplishment, and group development feedback. The results provide a quantitative basis for assessing the experiences of individuals under conditions of laboratory learning to supplement the phenomenological and theoretical formulations which have surrounded training group endeavors in the past. Implications of the findings are discussed from several different points of view.—*Author abstract.*

7272. Briggs, George E., & Naylor, James C. (Ohio State U.) The relative efficiency of several training methods as a function of transfer task complexity. *J. exp. Psychol.*, 1962, 64(5), 505-512.—4 training methods (pure-part, simplified-whole, progressive-part, and whole task) in the acquisition of a 3-dimensional tracking task were studied. 2 levels of transfer complexity were used. Training by the whole and progressive-part methods were essentially equivalent. Both these methods produced superior transfer as compared to either the pure-part or simplified-whole methods. As task complexity increased the whole and progressive-part training methods increased the absolute, but not the relative, superiority of transfer performance as compared with the other methods. Explanations for these findings are discussed.—*J. Arbit.*

7273. Cox, John A. Application of a method of evaluating training. *HumRRO res. Memo.*, 1962, Subtask Trader I. ii, 19 p.—A course in trouble shooting and repair in the Weapons Monitoring Center served as an example of a modified application of the Ward Edwards technique for dealing with "proficiency gain, worth of training, and cost estimates" in a single figure. It is offered "as a model for training personnel to follow when testing some part of a training program."—*R. Tyson.*

7274. Hesson, James M., & Thomas, Francis H. Training materials for aerial observation instruction in basic visual skills. *HumRRO tech. Rep.*, 1962, No. 80(Suppl.). vi, 93 p.—(See 37: 7285) Material based on 3 years of research is offered as a training material supplement for the unit training officer. Illustrated sections deal with visual search techniques, recognition training, geographical orientation, and target location.—*R. Tyson.*

7275. Hoskovec, J. (Charles U., Prague, Czechoslovakia.) Schultzu autogenní trénink. [Schultz's autogenic training.] *Ceskoslov. Psychol.*, 1962, 6(1), 103-109.—Description of basic data on autogenic training and its practical uses. Experiences from Czechoslovakia, USSR, and the German Democratic Republic are reviewed. (English & Russian summaries, 20 ref.)—*V. Bricháček.*

7276. Jones, Earl I., & Abrams, Alvin J. Training and proficiency of aviation structural mechanics: II. Proficiency of first enlistment aviation structural mechanics. *USN Bur. Naval Personnel tech. Bull.*, 1961, No. 61-16. v, 29 p.—(See 36: 1LE29J) "The purpose of this report is to describe

the performance, utilization, and training of first enlistment Aviation Structural Mechanics."—*N. Earl.*

7277. Kempner, T. (U. Sheffield) **Teaching methods in management education.** *Personnel Mgmt.*, 1962, 44 (Whole No. 362), 265-272.—Discussed are 6 methods within the context of 12-week courses for executives from industry and commerce. Lectures, group projects, case studies, individual projects, business games, and role playing are covered; and experiences with each technique are related.—*A. R. Howard.*

7278. Nichols, T. F., Ward, J. S., Fooks, N. I., Brown, F. L., & Rosenquist, H. S. **Performance evaluation of light weapons infantrymen (MOS 111.0), graduates of the advanced individual training course (ATP 7-17).** *HumRRO tech. Rep.*, 1962, No. 81, xii, 54 p.—Combat readiness of graduates of the 16-week training course was evaluated with respect to "13 critical . . . performances needing improvement." Changes "in emphasis in weapons instruction and in tactical training" are suggested, as well as "improved . . . integration of . . . individual skills into effective tactical actions." 8 specific remedial training steps are recommended.—*R. Tyson.*

7279. Pickering, Edward J., & Abrams, Alvin J. **Experimental training of sonarmen in the use of electronic equipment: II. Experimental training materials.** *USN Bur. Naval Personnel tech. Bull.*, 1962, No. 62-10, iv, 73 p.—"In July of 1960 the development of an experimental training program aimed at enhancing the proficiency of sonar school graduates in the use of electronic test equipment was undertaken. This report contains copies of all the training materials which were developed for use in the experimental program."—*N. Earl.*

7280. Pickering, Edward J., & Abrams, Alvin J. **Experimental training of sonarmen in the use of electronic test equipment: III. The evaluation of the experimental program.** *USN Bur. Naval Personnel tech. Bull.*, 1962, No. 62-8, v, 37 p.—"The principal conclusion from this research was that students trained under the experimental program performed significantly better than students trained under the previous program."—*N. Earl.*

7281. Schultz, D. G., & Siegel, A. I. (Applied Psychological Services, Wayne, Pa.) **The rationale and application of job suitability as a basis for the evaluation of training.** *Personnel Psychol.*, 1962, 15(3), 261-277.—This report demonstrates a technique employing "suitability for the job" as a basis for training evaluation by: (a) describing a method for quantitatively summarizing suitability and (b) illustrating the application of the method to data collected on technicians in 4 Naval jobs. By "suitability" is meant the graduates' ability to do the tasks involved in the job. For each job task, the method calls for estimates of (a) the average proficiency on the task of a group of training program graduates and (b) the task's importance. From these estimates 3 indices are computed. The specific tasks contributing to each index can be listed and logically analyzed from the standpoint of a possible increase or decrease in training emphasis.—*A. S. Thompson.*

7282. Standlee, Lloyd S., & Hooprich, Eugene A. **Annotated bibliography of adult reading**

studies. *USN Bur. Naval Personnel tech. Bull.*, 1961, No. 61-15, 126 p.—Articles appearing in newspapers, popular magazines, and professional journals have indicated that adults of average or better reading ability can make dramatic gains in reading skills as a result of reading improvement courses. Listed are 400 references, 384 of which are abstracted, published during the 10-year period, 1950-1960. Adults in reading improvement programs were generally reported to have achieved considerable increase in speed, typically 100% or more, with some gain, or at least no loss, in comprehension. Most evidence for improvement resulted from the administration of parallel test forms before and after reading instruction, but little attention is given to practice effect on the relative merits of different teaching methods and materials.—*N. Earl.*

7283. Standlee, Lloyd S., & Hooprich, Eugene A. **Review of research on reading instruction for adults.** *USN Bur. Naval Personnel tech. Bull.*, 1962, No. 62-12, iii, 24 p.—This report is based upon an annotated bibliography of adult reading improvement studies (see 37: 7282) by the above authors. Abstracts included therein that were "research studies" are represented in the present report. The research findings are grouped into 4 categories: reading skill gains, retention of reading skill gains, transfer of reading skills, and factors influencing the effectiveness of reading instruction. (117 ref.)—*N. Earl.*

7284. Steger, W. A. **Comments on a paper by Yarnold and Nehnevajsa.** *Operat. Res.*, 1962, 10 (2), 270-271.—Yarnold and Nehnevajsa (see *Operat. Res.*, 1961, 9, 535-545) assume that training devices operate by improving the temporal-accuracy performance of man-machine links. However, it should be recognized that ability to affect performance in one area is dependent on training decisions arrived at in other areas. Network evaluation techniques are suggested as appropriate for the purpose. The author feels that Yarnold and Nehnevajsa may not have taken into account such "training devices" as manned simulation systems, to which the methods they suggested do not readily apply.—*M. R. Marks.*

7285. Thomas, Francis H. **Low altitude aerial observation: An experimental course of instruction.** *HumRRO tech. Rep.*, 1962, No. 80, vii, 66 p.—Because of increasingly effective defense, future vital combat intelligence will have to be obtained at low altitudes. 5 experiments with instruction and field exercises resulted in visual research techniques producing a 40% increase in speed of recognition. Utilization of the program is advocated. An outline of the experimental training course, a criterion test, and 12 maps are presented.—*R. Tyson.*

7286. Williams, Alton C., & Briggs, George E. (Ohio State U.) **On-target versus off-target information and the acquisition of tracking skill.** *J. exp. Psychol.*, 1962, 64(5), 519-525.—3 groups were given augmented feedback in terms of auditory clicks when they were either on-target or off-target. Augmented feedback based on a simple off-target criterion was the most effective training condition. This seemed to be a result of the emphasis on off-target criterion places on occasional large tracking errors. The group trained on this condition learned to reduce such errors more quickly and efficiently than did the on-target criterion group.—*J. Arbit.*

7287. Wolff, Peter C., Van Loo, Joseph A., & Burnstein, David D. Target detection: VII. Partial point-out of targets as collective reinforcement in group target detection training. *Hum-RRO res. Memo.*, 1962, Subtask, Firepower IV, Task 11-26. 9 p.—An experiment with Army trainees without previous experience in target detection showed that "collective or group reinforcement might be detrimental unless answers are continuously furnished—that is, furnished on all training trials."—R. Tyson.

TASK & WORK ANALYSIS

7288. Binkhorst, R. A., & Carlsöö, S. (Kungliga Gymnastika Central Inst., Stockholm, Sweden) The thumb-forefinger grip and the shape of handles of certain instruments: An electromyographic study of the muscle-load. *Ergonomics*, 1962, 5(3), 467-470.—The interosseus dorsalis I becomes more active the harder an object is pressed and the smaller the area of contact.—B. T. Jensen.

7289. Daniel, J. (Slovenskej Akad. Vied, Bratislava, Czechoslovakia) Časová mikroanalýza niektorých pracovných úkonov. [Temporal microanalysis of some working acts.] *Psychol. Stud., Bratislava*, 1961, 3, 115-134.—Analysis of movement in transferring objects to a distance of about 20 cm. was made by means of contact analysis. Direction of the movement does not significantly influence the total time of the movement with the exception of the microelement of transferring. If the working S must decide between various elements of complex stimulus situation, the total time of movement is prolonged up to 100%. (Russian & English summaries)—V. Bricháček.

7290. Gurevich, K. M., & Gadzhiev, S. S. (Inst. Psychology, Acad. Pedagogical Sciences, RSFSR) Izuchenie roli lichnogo faktora v upravlenii elektroobrudovaniem elektrostantsii. [A study of the role of individual factors in the control of electric equipment of electric power stations.] *Vop. Psikhol.*, 1962, No. 3, 37-44.—The casualty control functions of a power station operator are considered in the light of some of Pavlov's ideas. In particular, a casualty situation is considered to be one in which especially strong stimuli impinge on the nervous system of the operator. If the operator has a nervous system of the weak type he may not handle this properly. Thus, following Pavlov, external inhibition or concentration of excitation at a few points will be the cause of errors of omission. The errors occurring in a training exercise are analyzed in this light.—H. Pick.

7291. Müller, E. A. (Max-Planck-Inst. Arbeitsphysiologie, Dortmund, Germany) Occupational work capacity. *Ergonomics*, 1962, 5(3), 445-452.—Many tests of work capacity measure maximum rather than "occupational" or permissible daily occupational work. The ratio between maximum and occupational work capacities varies with age. A more appropriate test is described. (17 ref.)—B. T. Jensen.

7292. Oshanin, D. A., & Venda, V. F. (Inst. Psychology, Acad. Pedagogical Sciences, RSFSR) O nekotorykh putyakh povysheniya effektivnosti operatorskogo truda v sistemakh "chelvoek i avtomat." [On some means of increase effectiveness of operator's work in systems of man and machine.]

Vop. Psikhol., 1962, No. 3, 23-36.—In complex automatic systems the majority of control functions are carried out by computing machines. Block diagrams are presented showing decreasing amount of human control as automation increases. After prolonged vigilance man's critical readiness to actively participate in control functions, e.g., in the event of a casualty, is reduced. The authors suggest casualty training involving unexpected disconnection of the computer control. An apparatus is described which provides simulated information display and response mechanism for experimentally investigating the best organization of man and machine as a link in a complex system. This apparatus provides for varying such characteristics as volume of input information, arrangement of display, color of the components, illumination and clarity of the various signal elements, etc.—H. Pick.

7293. Rushforth, Norman Burleigh. (Cornell U.) A comparison of sample correlation matrices and a multivariate analysis of job concepts of selected industrial executive groups. *Dissert. Abstr.*, 1962, 33(7), 2460.—Abstract.

7294. Seigel, A. I., & Wolf, J. J. (Applied Psychological Services) A model for digital simulation of two-operator man-machine systems. *Ergonomics*, 1962, 5(4), 557-572.—The model used requires 12 items of input data for each subtask and each operator, the initial conditions and the parameters. These are described. The model was used to simulate in-flight refueling and an air intercept. "... it appears that for predicting operator effectiveness on tasks similar to those simulated, the model may be used with some degree of confidence."—B. T. Jensen.

7295. Thomas, L. F. (Brunel Coll. Technology, Acton, England) Perceptual organization in industrial inspectors. *Ergonomics*, 1962, 5(3), 429-434.—Behavior of inspectors of several kinds of products indicates that they develop an image of a "good" object against which they compare the one at hand. Inspection requires perceptual development with the learning of relevant figure-ground relationships.—B. T. Jensen.

WORK ENVIRONMENT & PERFORMANCE

7296. Baron, P. L'ambiance du travail: Problèmes posés par les bruits industriels. [Working environment: Problems raised by industrial noises.] *Travail hum.*, 1962, 25(3-4), 217-250.—The author studies the physical and psychological characteristics of noises, in terms of methods of study and measurement, limits in relation to deafness, intelligibility of speech, audibility in terms of background noise, and effects on work.—R. W. Husband.

7297. Edholm, O. G., Adam, J. M., & Fox, R. H. (National Inst. Medical Research, Hampstead, London, England) The effects of work in cool and hot conditions on pulse rate and body temperature. *Ergonomics*, 1962, 5(4), 545-556.—16 young males in 2 groups alternated load handling and rest periods in hot or cool environments. "If an assessment of the energy expenditure of men working in the heat has to be made, it may be misleading to use either body temperature increment or pulse rate increment without knowing the state of acclimatization." It is suggested that using temperature to cor-

rect observed pulse rate may be a useful procedure.—
B. T. Jensen.

7298. Fournier, E. *L'ambiance du travail: Protection contre les vapeurs et les poussières.* [Working environment: Protection against fumes and dusts.] *Travail hum.*, 1962, 25(3-4) 251-267.—Because of the inconvenience of wearing masks and the narrow tolerance limits, physiologically and psychologically, one must pay careful attention to dangers of deprivation, intoxication, poisoning, explosions, and allergies. The author cites a number of drugs and chemicals, as well as some case studies.—*R. W. Husband.*

7299. Hicks, Samuel A. *The effects of twenty-four hours confinement in mobile armored personnel carriers on selected combat relevant skills: A follow up.* *USA Ordn. Hum. Engng. Lab. tech. Memo.*, 1962, No. 7-62. v, 18 p.—This investigation is the 6th in a series designed to determine changes in general combat relevant performance as a result of sustained confinement in armored personnel carriers. The purpose of this investigation was to determine changes in performance as a result of a confinement period of 24 hours duration. 44 enlisted men were tested before and after confinement on tests designed to measure stamina, eye-arm coordination, locomotor coordination, equilibrium, and hand-arm steadiness. The 24-hour confinement period resulted in statistically significant losses in all areas excluding eye-arm coordination (grenade throwing accuracy).—*USA OHEL.*

7300. Joshi, Dina Nath. *The problem of the welfare of women workers.* *Indian J. soc. Wk.*, 1961, 22(3), 179-188.—Arguments are given for a separate welfare program for women laborers on the basis of their social, physical, and psychological differences from men. General principles for such a program and inherent problems are discussed under the headings: Creches and Day Nurseries, Health, Pre-natal and Post-natal Conditions, Maternal and Infant Mortality, Maternal Benefits, and Canteens.—*R. Schaef.*

7301. Kissen, Abbott T. (Wright-Patterson AFB, O.) *The effect of hyperthermia on peripheral dark adaptation.* *USAF AMRL tech. docum. Rep.*, 1962, No. 62-133. iii, 7 p.—Super- or hyper-sonic aircraft flight can produce hyperthermia in crew members. Dark adaptation is a physiologic response possibly influenced by such stress. Biochemical regeneration rate of rhodopsin might be altered if retinal blood or tissue temperatures are raised by this hyperthermia. Peripheral dark adaptation curves were obtained on 5 Ss at control (21.0° C.) and 65.6° C. temperatures alternately, using a modified Hecht-Schlaer adaptometer. In 24 heat experiments, Ss were exposed to 65.6° C. ambient air temperature for 55 minutes after which the heat was shut off. Chamber temperature declined but the Ss remained in a relatively constant hyperthermic condition during the subsequent 35-min. dark adaptation test. The adaptometer stimulus light circuit was closed or opened by the investigator in accordance with a predetermined program to validate responses at each intensity level. Curves obtained under hyperthermic conditions (with the exception of the initial and terminal values) differ, with statistical significance, from controls, indicating an increase in dark adaptation

rate under the imposed thermal stress conditions.—
USAF AMRL.

7302. Rohles, Frederick H., Jr., Grunzke, Marvin E., & Reynolds, Herbert H. (Holloman AFB, N. Mex.) *Chimpanzee performance during the ballistic and orbital Project Mercury flights.* *J. comp. physiol. Psychol.*, 1963, 56(1), 2-10.—2 flights with chimpanzee Ss were conducted as part of NASA Project Mercury program. Ss were trained on modified operant tasks to measure effects of flights on learned behavior and to provide performance information prior to manned flights. The 1st S performed on a 2-component schedule and was flown in a ballistic trajectory (Mercury-Redstone 2); the 2nd S performed on a 5-component schedule during a 2-orbit flight around the earth (Mercury-Atlas 5). Both Ss were recovered safely. As a result of these 2 flights it was concluded that performance was relatively unaffected during weightlessness, that eating and drinking were accomplished without difficulty, and that behavioral measures are essential in assessing effects of space flight on living organisms.—*Journal abstract.*

7303. Snellen, J. W. (Netherlands Inst. Preventive Medicine) *The heat stress in brick-kiln workers.* *Ergonomics*, 5(3), July 1962, 453-466.—Workers unloading ovens maintain thermal equilibrium over a relatively long period because they changed from hot inside climate to cooler outside climate frequently.—*B. T. Jensen.*

7304. Wyndham, C. H., Strydom, N. B., Morrison, J. F., Peter, J., Maritz, J. S., & Ward, J. S. (Transvaal & Orange Free State Chamber Mines, Johannesburg, South Africa) *The influence of a stable diet and regular work on body weight and capacity for exercise in African mine recruits.* *Ergonomics*, 1962, 5(3), 435-444.—20 mine recruits were examined at recruitment, after 1 month, and at 4 months. They showed a mean gain in weight and increase in maximum oxygen capacity. The correlation between weight and oxygen capacity increased with time. Ratio of oxygen intake to rate of work did not increase.—*B. T. Jensen.*

Motivation, Attitudes, Traits

7305. Arrowood, Arthur John. (U. Minnesota) *Some effects on productivity of justified and unjustified levels of reward under public and private conditions.* *Dissert. Abstr.*, 1962, 22(11), 4104-4105.—*Abstract.*

7306. Glucksberg, Sam, & Lince, Donald L. *The influence of military rank of experimenter on the conditioning of a verbal response.* *USA Ordn. Hum. Engng. Lab. tech. Memo.*, 1962, No. 10-62. v, 20 p.—The relative effectiveness of Es of different military ranks as sources of reinforcement was investigated in a verbal conditioning task. With all E variables other than perceived formal rank held constant, no effects of rank were obtained. Only those Ss who were aware of the contingency between their responses and the E's behavior increased their use of the reinforced response. Implications for psychological research in a military setting are discussed.—*USA OHEL.*

7307. Gruenfeld, L. W. (Wabash Coll.) *A study of the motivation of industrial supervisors.*

Personnel Psychol., 1962, 15(3), 303-314.—Using the method of paired comparison, supervisors measured the desirability of job features. These preferences were then related to traits of the supervisors themselves as measured by a self description inventory. Job characteristics most preferred were those concerning personal development, promotion, and a desire for personal responsibility. The opportunity to see concrete results of work performed was ranked 3rd by the supervisors. The least preferred job characteristics were related to conditions of work. Self-assurance, supervisory quality, intelligence, and occupational level as well as age proved to be most useful in differentiating the supervisors' preferences.—A. S. Thompson.

7308. Klieger, W. A., deJung, J. E., & Dubuisson, A. U. Peer ratings as predictors of disciplinary problems. *USA Personnel Res. Off. OCRD tech. res. Note*, 1962, No. 124. 18 p.—Peer and cadre ratings of basic trainees and other experimental cognitive and personality measures were evaluated as predictors of acceptability (defined in terms of court-martial conviction and type of discharge) in a sample of 1571 men entering the Army in 1955. 5th-week ratings proved to be more predictive of the acceptability criterion ($r = .40$) than did any of the other measures investigated. In both enlistee (RA) and inductee (US) sample, RA-US component, apart from age and educational level, was somewhat related to acceptability (partial $r = .14$) but to a significantly lower degree than without control on age and education ($r = .32$).—A. J. Drucker.

7309. Klieger, W. A., Dubuisson, A. U., & Sargent, B. B., III. Correlates of disciplinary record in a wide-range sample. *USA Personnel Res. Off. OCRD tech. Res. Note*, 1962, No. 125. 15 p.—In the development of techniques for the early identification of potentially delinquent soldiers, operational test scores and data on type of discharge and court-martial conviction were obtained on a sample of 875 enlisted men who entered the Army in 1952-53 when AFQT Category IV and V men were being accepted. For purposes of the study, the Selective Service inductees sample ($N = 769$) and the smaller voluntary enlistees sample ($N = 106$) were each divided into 2 subsamples—AFQT Category I-III and AFQT Category IV and V. AFQT IV and V categories showed significantly greater proportions of men incurring disciplinary action than did AFQT Category III and above. Years of education, the verbal test of the Army Classification Battery, and AFQT were consistently related to the disciplinary criterion in a sample in which all mental categories were represented. Preservice criminal record was also found to be related to disciplinary action.—A. J. Drucker.

7310. Otero, Oscar Oliva; Machado, Mario R., & Sarandón, Cándido. Condiciones psicosociales y psicosociales en el medio fabril de Córdoba. [Psychohygienic and psychosocial conditions in the industrial district of Cordova.] *Acta psiquiat. psicol. Argent.*, 1962, 8(1), 25-33.—Data is presented from the administration of a questionnaire to 85 workers from a variety of industrial jobs. Questions focused on the physical, psychological, and socioeconomic factors of work. The responses are analyzed statistically and the questionnaire is reproduced.—W. W. Meissner.

7311. Robinson, H. Alan, & Connors, Ralph P. Job satisfaction researches of 1961. *Personnel Guid. J.*, 1962, 41(3), 240-246.—The 20th in a series. (49-item bibliogr.).—S. Kavrukk.

7312. Singh, Paras Nath. (Ohio State U.) A comparison of two scales for measuring the morale of industrial workers in India. *Dissert. Abstr.*, 1962, 22(10), 3736.—Abstract.

7313. Tomeković, Tomislav. (U. Belgrade) Level of knowledge of requirements as a motivational factor in the work situation. *Hum. Relat.*, 1962, 15(3), 197-216.—Control and experimental groups were differentiated on the following variables: explanation of job instructions, and explanation and discussion of instructions with group decision regarding both instruction and explanation. The effect on output of the respective groups was measured. The conclusions were: (a) combined explanation of instructions, discussion and decision-making provide significant motivation; (b) increase of output was observed in experimental groups over control groups only in the last 3 days of the 6-day test period; (c) explanation of instructions alone does not act as a motivational factor, since the experimental group did not differ from the group given instructions without explanation until the 6th day. In none of the comparisons was the quality of production considered. (54 ref.).—W. W. Meissner.

7314. van Biemen, A., & Buiter, J. H. De prestatiebeloning. [The reward of achievement.] *Mens Onderneming*, 1962, 16(2), 108-124.—“The function of achievement-pay within the company” was the subject of discussion at a meeting of the ‘Landelijke Federatie van Contactgroepen van Personeelschefs en Maatschappelijke Werkers’ (Dutch Federation of Contact-Groups of Personnel Managers and Personnel Social Workers). . . . Experiences with bonus payment systems show a diminishing effect after they have been in use for some time. . . . and they very often lead to undue pressure for increased production, creating stress. . . . During 1958, 42% of Dutch industrial workers were paid under a ‘basic rate plus bonus’ system. . . . but support for this type of wage system is now waning. . . . The conclusion was that it was impossible to provide standard prescriptions for the best system of industrial payment.”—C. T. Morgan.

7315. Vroom, V. H. (U. Pennsylvania) Ego-involvement, job satisfaction, and job performance. *Personnel Psychol.*, 1962, 15(2), 159-177.—Data from industrial workers in an oil refinery and electronics manufacturing company support the following conclusions: (a) Persons ego-involved in their jobs are rated higher in job performance than those not so ego-involved. There is also a tendency for the relationship between ego-involvement and performance to be greater for persons high in autonomy, although the results are not significant. (b) Job satisfaction and satisfaction with self of persons ego-involved in their jobs is significantly more positively related to the amount of opportunity for self-expression in their jobs than is the case for persons low in ego-involvement. Similar but nonsignificant differences were also found for measures of satisfaction with health, reported feelings of tension, and frequency of absences.—A. G. Thompson.

7316. Walker, Kenneth F. (U. Western Australia.) Executives' and union leaders' perceptions of each other's attitudes to industrial relations. *Hum. Relat.*, 1962, 15(3), 183-196.—2 groups of union leaders and executives were given a 17-item, forced-choice questionnaire and also were asked to predict the percentage of group responses. Both union leaders and executives perceived more conflict of opinion than actually existed. Members of each group predicted responses in their own group accurately, but not in the opposite group. Neither group was significantly more accurate, and difficult items differed between groups. The conclusion is drawn that inaccuracy of perception arises more from ignorance than systematic distortion.—*W. W. Meissner.*

7317. Walther, Leon. (Ginebra) El trabajo parcelario: ¿Es siempre prejudicial al trabajador? [The assembly line: Does it always harm the worker?] *Rev. Psicol. gen. apl.*, 1961, 16(Whole No. 59), 507-514.—According to this essay, the author's investigations among watch-makers of work rhythms, job rotation, matching of co-workers, and other psychological adjustments indicate that productivity may be improved and nervous disorders reduced by proper attention to conditions fostering mental hygiene.—*E. B. Page.*

7318. Weybrew, Benjamin B., Molish, H. B., & Youniss, Richard P. Prediction of adjustment to the Antarctic. *USN Med. Res. Lab. Rep.*, 1961, 20 (1 Whole No. 350), 61 p.—The predictive validities of several psychometric tests as well as trait ratings by teams of psychologists and psychiatrists were examined with respect to criteria of adjustment to the Antarctic during the "wintering-over" period of 1957. 33 subjective symptoms reported monthly together with 3 other attitudinal criteria were intercorrelated and factor analyzed. The total N was 109. Using factor scores computed for each of the 5 factors extracted from this matrix as adjustment criteria, it was found that men with the following characteristics had the greatest adjustment potential for the Antarctic conditions: high intelligence test scores; low interest in organized sports; rated high with respect to "ability to communicate," low with respect to "overt hostility," high with respect to "ability to cope with aggression"; to have less than a college education; to be single and over 25 years of age; and to have come from the southern section of the United States. The methodological importance of the application of factor analytic techniques to repetitively collected subjective data is emphasized.—*USN MRL.*

MANAGEMENT & ORGANIZATION

7319. Collier, Abram T. (John Hancock Mutual) Decision at Zenith Life. *Harv. Bus. Rev.*, 1962, 40(1), 139-157.—A case history approach is used to describe the various aspects of the problem of promotion from within to the office of company president. Backgrounds of 4 candidates are charted, and excerpts from tape recordings of their answers to a series of questions are presented. Readers are invited to participate in decision-making.—*C. F. X. Youngberg.*

7320. Cummins, Joseph L. (Austin, Tex.) Management a profession? *Advanc. Mgmt.-Off.-Exec.*, 1962, 1(12), 9-13.—A discussion as to whether or

not management is really a profession, or if it even should be. "The desire for status, while a real force in society, is hardly sufficient to create a profession in a real sense."—*E. Q. Miller.*

7321. Fleishman, E. A., & Peters, D. R. (Yale U.) Interpersonal values, leadership attitudes, and managerial "success." *Personnel Psychol.*, 1962, 15(2), 127-143.—Intercorrelations were obtained among the scales on the Survey of Interpersonal Values, the Leadership Opinion Questionnaire, and effectiveness ratings of managers in a manufacturing organization. Conclusions were: (a) managers high on conformity were rated less effective by top management, (b) leadership attitude toward structure and consideration were not related to effectiveness, (c) high managerial levels exhibited less need for structuring than subordinates, (d) top management tends to identify the effectiveness of subordinate managers with that of their superior.—*A. S. Thompson.*

7322. Haire, Mason. (Ed.) (U. California, Berkeley) Organization theory in industrial practice. New York: Wiley, 1962. x, 173 p. \$5.75.—This is a collection of 10 papers by business leaders from a symposium of the Foundation for Research on Human Behavior. This symposium was the response to the stimulus of a symposium in the same area held in 1959 by a group of social scientists. Several recurrent themes and myths of organization theory receive treatment. These themes are: (a) authority commensurate with responsibility—hardly anywhere else are they equated; (b) line and staff—the Law of the Situation, the imperatives of the science of management, seem to make this line disappear; (c) centralization—where does it start and why? (d) the objectives of the company—is synergism automatically included? (e) the nature of man—some new assumptions.—*E. Q. Miller.*

7323. Jaques, Elliott. Objective measures for pay differentials. *Harv. Bus. Rev.*, 1962, 40(1), 133-138.—Industrial disputes concerning payment are differential in character, arising over the question of how much one group is getting as compared with others. When bargaining is used for settlement of disputes, the outcome rests on the relative power of the contending sides. When arbitration is used, it depends on the wisdom of the individual chosen. An objective yardstick is needed for measuring the level of work in any job on a nationwide basis. A measure called the "time span of discretion" is explained.—*C. F. X. Youngberg.*

7324. Losee, J. E., Allen, R. H., Stroud, J. W., & Ver Hulst, J. (Republic Aviation Corp., Farmingdale, N. Y.) A study of the Air Force maintenance technical data system. *USAF AMRL tech. docum. Rep.*, 1962, No. 62-85. vi, 197 p.—This report details the research on preparation, production, distribution, evaluation, and verification of Air Force maintenance technical data. It highlights the impact of management on the procurement of accurate, timely, and economical data and identifies the areas in which management was found to be deficient. It points out the specific shortcomings in the data, in its preparation, distribution, and use. Finally, the report recommends actions considered necessary to (a) improve management of the overall technical order system and (b) to enhance the quality, useful-

ness, and timeliness of the data produced.—*USAF AMRL*.

7325. Mathur, A. S., & Raman. Trade union leadership in Agra. *Agra U. J. Res.*, 1962, 10, 59-80.—A detailed study of 30 leaders is reported including their caste, age, field of work, economic condition, length of work in the trade unions, number of unions formed, duration of holding office, industrial experience, political affiliations, time devoted to trade union work, and industrial relations. "Outsiders continue to play a very important role in the trade unions." Some suggestions to improve leadership are offered.—*U. Pareek*.

7326. Miller, Vergil V. (Oregon State U.) Human behavior and budget controls. *Advanc. Mgmt.-Off. Exec.*, 1962, 1(12), 30-34.—"Management's adherence to a strict interpretation of efficiency controls may lead to a multitude of production problems stemming from human factors." The problems generally arise from feelings of frustration as a result of failing to meet too high a standard.—*E. Q. Miller*.

7327. Patchen, M. (U. Michigan) Supervisory methods and group performance norms. *Admin. Sci. Quart.*, 1962, 7(3), 275-294.—Some determinants of group performance norms in an industrial firm are examined. High performance norms are associated with encouragement of efficiency, together with attempts by the foreman to obtain rewards for subordinates. Each alone has a negative effect on performance. In contradiction to prior studies, close supervision is found to facilitate high performance norms. When supervision is close, reward for efficiency and strong group cohesiveness have the best effects. The author also discusses the conditions under which close supervision is effective and ineffective.—*V. S. Sexton*.

7328. Phelps, Ernest D. (Raytheon Co.) Help your engineers to get ahead. *Harv. Bus. Rev.*, 1962, 40(1), 125-132.—Conflicts frequently arise between the engineer and his personal goals on the one hand, and the patterns of operation within his firm on the other. Much of these may be eliminated if the firm's policies include periodic performance reviews, a sound development program, and promotion from within.—*C. F. X. Youngberg*.

7329. Sbandi, M. Aspetti del rapporto capodipendente nella cultura meridionale. [Aspects of head-subordinate relationship in southern culture.] *Riv. Psicol. soc.*, 1962, 29(2), 145-152.—The relationship between head and subordinates effected the behavior of the whole work group in southern Italy.—*L. L'Abate*.

7330. Stryker, Perrin. The character of the executive: Eleven studies in managerial qualities. New York: Harper, 1961. xii, 237 p. \$1.60 (paper).—A paperback edition of a book previously published by Harper in 1960 under the title *The Men From the Boys*.

7331. Sykes, A. J. M. (U. Glasgow, Scotland) The effect of a supervisory training course in changing supervisors' perceptions and expectations of the role of management. *Hum. Relat.*, 1962, 15(3), 227-243.—The course included group discussions on company problems, and succeeded in awakening supervisors to certain grievances and faults in the company, which they attributed to senior

management. The consultant conveyed these grievances to the managing director, who promised to remedy them. A delay of several months in putting these remedies into effect, and the correct perception of the supervisors that delay was due to resistances among the senior management, caused frustration and dissatisfaction. This resulted in a large percentage of the supervisors leaving or trying to leave their jobs in the year following the course. Problems created by the differential change and cautions for avoiding it are discussed.—*W. W. Meissner*.

7332. Youngberg, C. F. X., Hedberg, R., & Baxter B. (Prudential Insurance Co. America) Management action recommendations based on one versus two dimensions of a job satisfaction questionnaire. *Personnel Psychol.*, 1962, 15(2), 145-150.—A job satisfaction questionnaire permitting responses along 2 dimensions (satisfaction and importance), was administered to 1171 insurance salesmen. Problem areas based on the proportion of salesmen checking the category "Dissatisfied" were compared to those based on the proportion responding to both "Dissatisfied" and of "Great Importance." The top 6 problem areas isolated on the basis of 1 dimension did not necessarily correspond to the top 6 problem areas uncovered when 2 dimensions were examined. Addition of the importance dimension provided more meaningful findings on which to base recommendations for management action.—*A. S. Thompson*.

7333. Zuidema, H. L., Engel, H. K., & Bautz, T. M. Management development. *Mens Ordening*, 1962, 16(2), 99-107.—"The Nederlandse Vereniging voor Bedrijfspsychologie. (Dutch Association for Industrial Psychology) held a meeting devoted to the subject of management development. In order to provide for a sufficient supply of capable people to fill managerial jobs in the future, a long-term plan of selection and development is required. Before this can be done, however, the organization's development has to be examined carefully, since it is the basis for successful forecasting procedures. . . . The basic elements in management development are: 1st, long-term planning; 2nd, assessment of prevailing human resources; 3rd, recruitment; 4th, training and development."—*C. T. Morgan*.

ENGINEERING PSYCHOLOGY

7334. Adams, Jack A., & Creamer, Lyle R. (U. Illinois) Data processing capabilities of the human operator. *J. engng. Psychol.*, 1962, 1, 150-158.—The hypothesis tested was that the human operator has a 1-channel decision center whose function is resolving event uncertainties. "The Bisenory Discrete Matching Task was used, where discrete audio and visual stimuli were jointly presented for concurrent responses by the two hands. The visual stimulus series . . . had event uncertainty to occupy the one-channel central decision mechanism . . . and concurrent audio stimuli were either partly or completely redundant." Performance under the 2 bisenory conditions was compared with a unisensory, visual, control condition. 15 Ss were tested under each of these 3 conditions. Performance in both bisenory conditions was impaired, and it was concluded that the tested hypothesis was tenable.—*D. C. Hodge*.

7335. Bartlett, F. C. The future for ergonomics. *Ergonomics*, 5(4), 1962, 505-511.—Communication,

decision-making, effects of automation, and other problems are discussed briefly.—*B. T. Jensen.*

7336. Dobbins, D. A. **Monitor performance task: Status report.** *USA Personnel Research Off. OCRD tech. Res. Rep.*, 1962, No. 1123. 26 p.—In response to the needs of an expanding military technology, the task was initiated at the beginning of Fiscal Year 1960 to improve the dependability of human performance in jobs of critical importance. The primary objective is to improve performance in Army monitor jobs, with particular emphasis on developing and testing new work methods for use in operational man-machine systems. Work in 3 subtasks constitutes the major approach to this task: (a) a study of Army drivers performing on the American Association of State Highway Officials (AASHO) Road Test (completed), (b) experimental laboratory studies of vigilance behavior (in process), and (c) human factors studies of critical jobs in the operational setting (in process). Both the AASHO studies and a survey, conducted across service elements, of Army jobs having a vigilance component have confirmed the utility of a broad program of vigilance research and pointed up the need for a versatile laboratory simulator through which relevant features of many monitor jobs may be experimentally studied. Simulator specifications have been established, and experimental designs have been developed for pilot studies in information monitoring.—*A. J. Drucker.*

7337. Karvonen, M. J., Koskela, A., & Noro, L. (Inst. Occupational Health, Helsinki, Finland) **Preliminary report on the sitting postures of school children.** *Ergonomics*, 1962, 5(3), 471-478.—Recommendations are made regarding the design of school furniture. A study of sitting positions of 162 children in different classroom activities is reported. (18 ref.)—*B. T. Jensen.*

7338. Pope, Louis Trueman. (U. Houston) **A study of signal variables and level of alertness in visual and auditory vigilance.** *Dissert. Abstr.*, 1962, 22(7), 2480.—*Abstract.*

Displays

7339. Abma, John Spencer. (Ohio State U.) **The auditory encoding of printed characters.** *Dissert. Abstr.*, 1962, 22(11), 4089.—*Abstract.*

7340. Baker, E. Jo, & Alluisi, Earl A. (Emory U.) **Information handling aspects of visual and auditory form perceptoin.** *J. engng. Psychol.*, 1962, 1, 159-179.—4 experiments: (a) A modified paper-and-pencil figure-cancellation task, previously developed, was validated using 95 Ss. Response time increased with increasing figure complexity, and with constrained, rather than random, sampling. Performance was unaffected by either figure or detail size. (b) The effect of different amounts and "textures" of visual noise was tested using 50 Ss. "Response time increased linearly . . . from no noise through 25% noise." Performance was better with small, rather than large, noise detail. (c) Auditory-visual effects were studied using 8 musician-psychologists. "Pitch and time in the auditory domain were taken as analogs to the vertical and horizontal spatial coordinates of the visual figures. Results were consistent with those of the first study." (d) Auditory figures were presented to 6 Ss who tried to reproduce them using a xylophone. Errors increased with in-

creased figure complexity and with constrained sampling. "The results of all four experiments are interpreted as supporting an information-handling approach to the understanding of the perceptual processes in man." (27 ref.)—*D. C. Hodge.*

7341. Birnbaum, A. H. **Human factors research in image systems: Status report.** *USA Personnel Res. Off. OCRD tech. res. Note*, 1962, No. 122. 22 p.—The research effort of the Image Systems Task is closely coordinated with the development of systems designed to meet Army aerial surveillance needs in future warfare. To meet a continuing requirement for best utilization of the human component in image systems, 4 research subtasks were included in a research program initiated 1 July 1960. These subtasks were concerned with identification of basic human factors in development of the Tactical Image Interpreter Facility (TIIF), extraction of information from images of near real-time systems, techniques for interpreting TV imagery, and improved procedures in communication of intelligence information. The present report describes research accomplished during Fiscal Year 1962 and indicates the kind of payoff in intelligence output that can result from human factors research in image systems. Data has been collected for a study on relative effectiveness of transparencies and positive prints. Measures of interpreter performance, based upon a detailed review of selected World War II photography, have been delineated.—*A. J. Drucker.*

7342. Coules, John; Ganem, George, & Sumby, William H. **On the selection of code-names for communication systems.** *USAF ESD tech. docum. Rep.*, 1962, No. 62-306. iv, 30 p.—Intelligibility of an untested set of code-names (18 bird-names) for an Air Traffic Control Central (VOLSCAN) was studied under signal/noise conditions. The set was rejected because phonetically similar words were confused and large individual differences between listeners' accuracy scores occurred. Such large listener variability would not provide for an efficient communication system, particularly when it may be jammed. 2 new sets were constructed for a large set, labelled Set 2, of 84 words. Set 3 was selected on the basis of 2 psycholinguistic factors, high intelligibility scores, and variation in syllabic length. Although Set 4 showed high intelligibility, it was rejected because large individual differences between Ss occurred. However, for these same Ss, when they listened to Set 3, their accuracy scores showed insignificant variations and also high intelligibility. The major findings are: (a) the selection of code names for a large list merely in terms of highest intelligibility is inadequate and (b) individual differences between listeners are practically eliminated when a list is based on high intelligibility and variation in syllabic length.—*USAF ESD.*

7343. De La Mare, G., & Walker, J. (University Coll., London, England) **The visibility of direction indicators.** *Ergonomics*, 1962, 5(4), 573-579.—3 experiments utilized students and staff with better than normal vision. 9 types of signal arrows were used at each of 3 distances; arrows in each experiment were variations of those in the first. ". . . a simple shafted arrow on an open board was more legible than other kinds of indicators." Other conclusions are also presented.—*B. T. Jensen.*

7344. Hayes, William Neil. (Princeton U.) Shape recognition as a function of viewing time, eye movements, and orientation of the shape. *Dissert. Abstr.*, 1962, 22(7), 2474.—*Abstract*.

7345. Herman, Louis Marvin. (Pennsylvania State U.) Processing of information on an auditory tracking and an auditory judgment task presented simultaneously. *Dissert. Abstr.*, 1962, 22(7), 2475.—*Abstract*.

7346. Hoffman, Lyle Sheldon. (U. Minnesota) Some determinants of difficulty in the trouble shooting of symbolic data flow systems. *Dissert. Abstr.*, 1962, 22(11), 4096.—*Abstract*.

7347. Karsh, Robert, & Mudd, Samuel A. Design of a picture language to identify vehicle controls. III. A comparative evaluation of selected picture-symbol designs. *USA Ordn. Hum. Engng. Lab. tech. Memo.*, 1962, No. 15-62. v, 35 p.—This study investigated the accuracy of identification of each of 90 picture-symbol designs with each of 34 vehicle control names. 2 sets of designs were evaluated. The set which had been empirically derived in a preceding study was found to be more effective than the set which had not been empirically derived. Effective symbols were found for 24 out of 34 vehicle control names. 10 new symbols have been developed. They will be presented subsequent to further evaluation tests.—*USA OHEL*.

7348. Kraemer, Alfred J., Easley, David L., & Hall, Meredith J. Flash localization and reticle design. *HumRRO res. Memo.*, 1962, Subtask Armornite XI, Task 11-27. iii, 11 p.—An experiment showed that "a grid-type reticle would result in much greater gun-laying accuracy against flashes, if the tank fire control system were modified to enable the gunner to convert reticle readings accurately into lays of the gun."—*R. Tyson*.

7349. Lehman, P. Joseph, & Craig, Eugene A. (Lehigh U.) Dimensional analysis in applied psychological research. *J. Psychol.*, 1963, 55(1), 223-226.—Dimensional analysis permits the simplification of both experimental procedures and data analysis for situations meeting its assumptions. Presently used in tests of heat transfer and fluid mechanics, it has possible applications to psychological research. A hypothetical dial-reading study illustrates the computational procedures.—*Author abstract*.

7350. Littell, William McKay. (Claremont Graduate School) Cue preference and the informational structure of a static visual field. *Dissert. Abstr.*, 1962, 22(11), 4096-4097.—*Abstract*.

7351. Obermayer, R. W., & Muckler, F. A. (Martin Marietta Co., Baltimore, Md.) Preferences for instrument panel viewing distance. *J. engng. Psychol.*, 1962, 1, 141-149.—20 Ss scanned a 9.5 in. wide display panel and adjusted the panel to the preferred position. Ss were instructed to "compromise between panel legibility and a comfortable scan over the entire line of focus." Mean preferred viewing distance was 29.19 in. Nonpilots' preferences were more variable than those of pilots; Ss with psychological training were more variable than those having no academic psychological background. The importance of using both performance and preference data in making equipment design decisions was stressed.—*D. C. Hodge*.

7352. Roman, J. A., Warren, B. H., Niven, J. I., & Graybiel, A. Some observations on the behavior of a visual target and a visual after-image during parabolic flight maneuvers. *USN Sch. Aviat. Med. res. Rep.*, 1962, Proj. MRO05.13-6001, Subtask 1, Rep. No. 64. iii, 8 p.—Also published as *USAF School of Aerospace Medicine Report No. 62-66* (see 37: 5833).—*C. T. Morgan*.

7353. Small, Victor Hepburn. (Purdue U.) Judged similarity of visual forms as functions of selected stimulus dimensions. *Dissert. Abstr.*, 1962, 22(7), 2481-2482.—*Abstract*.

7354. Smith, Sidney L. (MITRE Corp., Bedford, Mass.) Color coding and visual search. *J. exp. Psychol.*, 1962, 64(5), 434-440.—"Twelve Ss each viewed a series of 300 displays, which varied in display density, in number of colors used, in the particular color of the target, with either a white or black background, under conditions where S either knew the color of the target in advance, or did not. Neither the particular color of the target nor the display background had any significant effect on search time. Search time increased regularly with increasing display density. For multicolored displays, when the color of the target was known in advance, search times were considerably shorter than when the target color was unknown. When the color of the target was unknown, search times were not significantly different than those for single-colored displays."—*J. Arbit*.

7355. Sumbly, William H. A comparative evaluation of vibrotactile warning signal potential. *USAF ESD tech. docum. Rep.*, 1961, No. 61-24. 17 p.—The discriminative reaction times to auditory, visual, and vibrotactile stimuli are compared. Reaction times to vibrotactile signals are at least as short as the reaction times for the other modalities, although more incorrect responses were made using that sense. Of greatest interest, however, the probability of a response being made to a vibratory signal appears to be the highest of the 3. The implications of these findings are discussed.—*USAF ESD*.

7356. Wiener, Earl Louis. (Ohio State U.) Knowledge of results and the monitoring problem. *Dissert. Abstr.*, 1962, 22(11), 4102-4103.—

7357. Wolff, Peter C., & Van Loo, Joseph. Target detection: III. The relative usefulness of active participation and verbal description techniques in target detection training. *HumRRO res. Memo*, 1962, Subtask Firepower IV, Task 11-26. ii, 18 p.—Active participation during training, verbal descriptions of targets, and transfer from training in stationary to moving targets was investigated. Active participation improved target detection and increased false detections. Extensive research is recommended to verify other findings and enlarge upon them.—*R. Tyson*.

Controls

7358. Baker, D. Frederick. (Wright-Patterson AFB, O.) Survey of remote handling in space. *USAF AMRL tech. docum. Rep.*, 1962, No. 62-100. iii, 42 p.—A survey of industrial opinion on remote handling in space was undertaken to document early concepts and to identify areas of agreement, areas of conflict, and unique ideas relating to the subject. 7

industrial concerns and 1 military agency provided papers on the role of remote handling in space. These papers are discussed in terms of: (a) remote operations of which there are 5 major categories—maintenance, assembly, experimentation, transfer operations, and emergency operations; (b) space vehicle design—the manned lightweight capsule, with anthropomorphic gloves, stabilization arms, window ports, and 2 to 3 manipulator arms, being representative; (c) manipulator design—concerning actuation, configuration, control, and feedback systems; and (d) space environment factors—vision, weightlessness, temperature fluctuations, high-energy radiation, and micrometeorite collisions.—*USAF AMRL.*

7359. Hammerton, M. (Applied Psychology Research Unit, Cambridge, England) **An investigation into the optimal gain of a velocity control system.** *Ergonomics*, 1962, 5(4), 539-543.—2 groups of 5 naval ratings used a thumb joy-stick control of target acquisition with the control having 5 degrees of gain at each of 5 velocities. The 1st series of tests were not considered in the analysis since considerable learning occurred. "... the typical U-shaped curve of the relation between control sensitivity (or 'gain') and time taken to secure stable acquisition of target is not found in the circumstances of these experiments."—*B. T. Jensen.*

SIGNS & LEGIBILITY

DRIVING, ACCIDENTS, SAFETY

7360. Brody, Leon. **Accidents and "attitudes."** In Flanders Dunbar & Leon Brody, *Basic aspects and applications of the psychology of safety* (see 37: 7364). Pp. 6-24.—Attitudes, in terms of their origin, modification, or enhancement, are discussed and conclusions drawn in relation to safe behavior, especially as it applies to the operation of motor vehicles. (57 ref.)—*C. T. Gaza.*

7361. Brody, Leon. (New York U.) **Human factors research in occupational accident prevention.** New York: New York University Center Safety Education, 1962. 44 p.—Men and work, workers and their physical environment, workers and their social-psychological environment, accident investigation, and safety programing are discussed. Research questions are raised, and a selected list of previous studies and reports is provided. General conclusions are drawn. Appendices provide abstract sources, selected basic literature titles, universities engaged in relevant research, list of training programs in operation, and sources for financial support of research.—*C. T. Gaza.*

7362. Crawford, A. (Road Research Lab., Harmondsworth, Middlesex, England) **Driver judgment and error during the amber period at traffic lights.** *Ergonomics*, 1962, 5(4), 513-532.—8 drivers in each of 3 cars, at each of 5 speeds, were tested in ability to stop for amber lights at simulated intersections. Ss' judgments of need to stop corresponded to stopping distances at peak braking performance; however, the timing of the lights led to errors in about 1/8 of the

cases. Considerable data plus an appendix are included.—*B. T. Jensen.*

7363. Dunbar, Flanders. **Accidents and life experience.** In Flanders Dunbar & Leon Brody, *Basic aspects and applications of the psychology of safety* (see 37: 7364). Pp. 1-5.—*C. T. Gaza.*

7364. Dunbar, Flanders, & Brody, Leon. **Basic aspects and applications of the psychology of safety.** New York: New York University, Center Safety Education, 1959. 24 p. \$.50.—(See 37: 7360, 7363)—*C. T. Gaza.*

7365. Germain, José. (Madrid, Spain) **La predisposición a los accidentes.** [Accident proneness.] *Rev. Psicol. gen. apl.*, 1961, 16(Whole No. 59), 539-559.—Reviewed are various techniques used in several countries to collect data from traffic accidents and to analyze individual accident tendency. Statistical methods of percentages, frequency comparisons, and temporal reliability of accident records (agreement between different time intervals for the same Ss) as usually employed, are criticized for failure to control competing hypotheses sufficiently. Author calls upon psychologists for more active role in growing "science of safety." (26 ref.)—*E. B. Page.*

7366. Germain, José. (Madrid, Spain) **Problemas de la conducción: II. Aspectos psicológicos.** [Driving problems: II. Psychological aspects.] *Rev. Psicol. gen. apl.*, 1961, 16(Whole No. 60), 777-800.—An international review of studies of psychological factors affecting accidents is given, including psychoanalytic considerations, general medical and psychological conceptions, the plan of accidents, accident proneness, single case analysis, and comparison of accident groups with controls. (27 ref.)—*E. B. Page.*

7367. Sawers, Kenneth T. **Group discussion techniques for driver education.** New York: New York University Center Safety Education, 1961. (Res. Contr. Accident Prevent., 2nd Ser., No. 1) 39 p. \$.50.—Techniques of group discussion are outlined, and discussion starters specific to the classroom phase of driver instruction are provided.—*C. T. Gaza.*

ADVERTISING & CONSUMER PSYCHOLOGY

7368. Leavitt, Clark. (Leo Burnett Co., Chicago, Ill.) **Intrigue in advertising: The motivating effects of visual organization.** In Advertising Research Foundation, *Proceedings of the 7th Annual Conference.* New York: ARF, 1961. Pp. 126-136.—The danger of evaluating graphic communication solely in terms of display efficiency without attention to the motivating effects of the material was discussed. An "index of communication effectiveness" combining both factors was proposed. Results were presented showing the relation of such a measure to actual readership scores for 20 ads. Some possible stimulus correlates (intrigue) to the holding power of messages were outlined and the implications of the research on sensory deprivation for communication was pointed out.—*Author abstract.*

BRIEF SUBJECT INDEX

This index supplements, but does not duplicate, the classification of abstracts given in the Table of Contents. It is assumed that the reader will have scanned whatever categories of classification interest him and that he will use this index only for cross references or for subjects that are more specific than the general categories of the classification. When many numbers are encountered under a heading, the reader may simplify his task by matching the numbers found under the two or more headings that specify his particular interest.

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GENERAL

7369. Wellek, Albert. *Die Wissenschaftsproblematik der Psychologie als einer anthropologischen Disziplin*. [Scientific problems in considering psychology as a discipline of anthropology.] *Psychol. Rdsch.*, 1963, 14(2), 75-92.—Monism of method, erroneously called the method of natural sciences in psychology, is untenable because it is sterile. The contrasts between operational and phenomenological method are exaggerated. Experimental and statistical method are not identical, nor does one depend upon the other. Statistics is no guarantee for exactness. The results will only be as exact as the raw data were in the first place. Psychology is neither natural science nor philosophy but a science "sui generis" with its own problems and its own methods.—W. J. Koppitz.

7370. Wolf, I. S., *Perspectives in psychology: XVI. Negative findings*. *Psychol. Rec.*, 1961, 11, 91-95.—This article was previously abstracted (see 36: 2AA91W), but with an incomplete title.—Editor.

7371. Woltereck, Heinz. *What science knows about life*. (Trans. by Mervyn Savill) New York: Association Press, 1963. xi, 240 p. \$6.50.

OBITUARIES

HISTORY & BIOGRAPHY

7372. Gray, P. H. (Montana State Coll.) Douglas Alexander Spalding: The first experimental behaviorist. *J. gen. Psychol.*, 1962, 67(2), 299-307.—Douglas Spalding, protégé of J. S. Mill and erstwhile guardian of Frank and Bertrand Russell, was born in London about 1840 and died in Dunkirk in 1877. Although of humble birth and largely self-educated, he was well versed in the arts and sciences and he made himself an able and often hated critic in 19th century psychology. His ingenious research on animals began the experimental study of behavior; among the research problems he initiated are imprinting, auditory and visual "releasers," anti-predator reactions, and spatial perception of animals. He was a direct influence on William Preyer, George Romanes, Lloyd Morgan, William James, Wesley Mills, and Edward Thorndike in research and theory; traces of his psychological materialism may still be found in the writings of modern psychologists.—*Author abstract*.

7373. Grinder, Robert E., & Strickland, Charles E. G. Stanley Hall and the social significance of adolescence. *Teachers Coll. Rec.*, 1963, 64(5), 390-399.—Critical review of Hall's contributions. (31 ref.)—H. K. Moore.

7374. Lersch, P. *Portrait, notice biographique et bibliographique*. [Portrait, biographical and bibliographical account.] *Rev. Psychol. appl.*, 1962, 12(3), 215-216.—E. G. White.

7375. Sander, Friedrich, & Volkelt, Hans. *Ganzheits psychologie: Grundlagen, Ergebnisse, Anwendungen*. [Total psychology: fundamentals, results, applications.] Munich, Germany: C. H. Beck, 1962. xiv, 459 p. DM 48.50.—A collection of 27 papers, 19 of them originally published before 1940, reveals the creative research in Gestalt psychology by Sander and child psychology by Volkelt at the Psychological Institute of the University of Leipzig between 1920 and 1940. Recovered from numerous sources, the present collection of papers has historical value in closing a gap between the early psychological publications and the current revival of the institute.—K. J. Hartman.

7376. Watson, Robert I. (Northwestern U.) *The great psychologists: Aristotle to Freud*. Philadelphia, Pa.: Lippincott, 1963. xiii, 572 p. \$7.50. (Text ed. \$5.50)—In the first ½ of the book, the author describes the pre-Socratic and post-Socratic Greeks, the medieval theologians, and the "later" philosophers. In the 2nd ½, he traces the lives and thoughts of the major architects of modern scientific psychology. Major advances in the field are related to the personalities of the people who innovated them. Source material from medicine, philosophy, and theology is included. There are 21 chapters. The 1st covers roughly the period from Thales to Hippocrates. The 20th chapter (the last on a specific person) covers the work of Freud and is the longest in the book by a considerable margin. Other relatively long chapters are those concerning Aristotle, Descartes, and Locke and Berkeley. The shortest covers the work of Kant and Hebart. About ½ of the chapters contain an "Overview" section. The bibliography includes 40 general references and 60 pages of chapter references. An index of names and an index of subjects are given. The book is dedicated to E. G. Boring.—R. D. Nance.

THEORY & SYSTEMS

7377. Bachrach, Arthur J. (Arizona State U.) *Psychological research: An introduction*. New York: Random House, 1962. x, 113 p. \$1.45.—5 brief essays present a nonformalist account of psychological research. Operationism and monistic physicalism are stressed. Empiricistic method, informal theorizing, and the role of "serendipity" are emphasized in support of points of view expressed by Skinner and Sidman.—M. Turner.

7378. Coan, R. W., & Zagana, S. V. (U. Arizona) *Contemporary ratings of psychological theorists*. *Psychol. Rec.*, 1962, 12, 315-322.—Merit ratings were made on 5-point scale by decades from 1880-1959, and for overall value. Lists of theorists to be rated were compiled from major texts and surveys. Freud, Wundt, and James are rated at the top and the rest of the list is dominated by behaviorists.

This "contemporary American outlook" may not last as history gives us greater perspective.—*R. J. Seidel.*

7379. Dashiell, J. F. (Florida State U.) **The unreliability of secondary sources with examples from Jung.** *Psychol. Rec.*, 1962, 12, 331-334.—Although reporting of factual details of experimentation is given strict adherence, scientists commonly take unintentional license with a man's theory. Attention is called to misinterpretations of Jung's "collective unconscious" and "introvert-extravert," which errors "became established in the learned tradition by dint of uncritical acceptance and tradition."—*R. J. Seidel.*

7380. Oken, D., & Heath, Helen. (Michael Reese Hosp., Chicago, Ill.) **The law of initial values; Some further considerations.** *Psychosom. Med.*, 1963, 25(1), 3-12.—The law states that with a deviant prestimulus level, the organism can react less in the same direction when stimulated. Change scores are the measure for testing if the law applies. Normalization of the data is unnecessary. Changes in the prestimulus behavioral state of Ss distort the results. The law applies to prolonged as well as transient physiological responses. (16 ref.)—*W. G. Shipman.*

PHILOSOPHY

7381. Battig, William F. (U. Virginia) **Parsimony in psychology.** *Psychol. Rep.*, 1962, 11(2), 555-572. (Monogr. Suppl. No. 3-V11)—"The law of parsimony" and closely related qualities of simplicity and economy have been widely accepted by psychologists as legitimate criteria for choice among alternative theories, research designs, and methods of measurement and analysis of data. Several lines of argument and evidence are presented leading to the contrary conclusion that psychological research has been significantly retarded by the largely inappropriate use of such criteria, that under conditions where they can be meaningfully applied they are also unnecessary, and that psychologists at present would therefore be well advised to ignore considerations of parsimony and simplicity entirely in their choice of research strategy."—*B. J. House.*

7382. Bertocci, P. A., & Millard, R. M. (Boston U.) **Personality and the good.** New York: David McKay, 1963. xxi, 711 p. \$7.50.—The main purpose of this introductory text in ethics is to provide an analysis of psychological and ethical thinking as a means of constructing a philosophy of the good life. In Part I the concepts of Freud, Jung, Adler, Horney, E. Fromm, Maslow, and G. Allport are examined for their contributions to the nature of the good life. Part II considers the problems of motivation, freedom, and moral obligation in the light of psychology and philosophy. Part III contains analyses of the nature of duty, values, and the good life. Part IV offers a set of ethical principles to guide moral choice. Part V discusses society, sex, love, marriage, religious experience, and their relation to ethics and personality development.—*D. T. Kenny.*

7383. Chein, I. (New York U.) **The image of man.** *J. soc. Issues*, 1962, 18(4), 1-35.—A compelling commentary on our psychological presuppositions of the nature of man, pointing out the inconsistency between man as conceptualized and man as experienced, in particular with respect to man as a

free agent in contradistinction to our espousal of determinism as a scientific principle.—*A. Barclay.*

7384. Ellson, D. G. (Indiana U.) **The scientists' criterion of true observation.** *Phil. Sci.*, 1963, 30(1), 41-52.—"A theory of true observation is developed as a generalization of the method of inter-observer agreement that scientists use to determine the objectivity and reliability of observations. A true observation is defined as a statement included in a set of statements in which there is statistical dependence and perfect agreement between statements made by a universe of experimentally independent persons. . . . In this theory truth is inferred from a spatio-temporal pattern of statements as behavior rather than from the traditional correspondence between observation and object or logical relationships among statements."—*M. Turner.*

7385. Murray, H. A. (Harvard U.) **The personality and career of Satan.** *J. soc. Issues*, 1962, 18(4), 36-54.—A presentation of some conceptualizations of the nature of manifestations of evil in man with special emphasis upon discussion of the "Satanic complex."—*A. Barclay.*

7386. Ritey, Hector J. (Metropolitan Cent. Mental Health) **The human kingdom: A study of the nature and destiny of man in the light of today's knowledge.** New York: University 1962. 498 p. \$10.00.—Psychiatry is in danger of becoming a tinkering technique unless it can find some way of incorporating into its perspective the spiritual values embodied in the religious tradition. Man's destiny transcends the science-religion controversy. Physiologically, man's evolution into greater ethical and spiritual developments has its promise in the now "silent areas" of the brain; culturally, man's destiny lies in a deeper use of the family unit. The time is ripe for the insights of psychiatry and religion to merge for a greater humanity.—*O. Strunk, Jr.*

7387. Waelder, Robert. (Jefferson Medical Coll.) **Psychic determinism and the possibility of predictions.** *Psychoanal. Quart.*, 1963, 32(1), 15-42.—The philosophical problems inherent in determinism as opposed to free will are discussed. "It appears to be equally impossible to develop a consistent world picture based on complete determinism or one based on complete indeterminism; both assumptions lead to untenable, or at least unimaginable consequences." There are only limited possibilities for accurate predictions and so "there seems to be no point in proclaiming a doctrine of complete, universal determinism."—*J. Z. Elias.*

STATISTICS

7388. Cattell, Raymond B. **The relational simplex theory of equal interval and absolute scaling.** *Acta psychol., Amsterdam*, 1962, 20(2), 139-158.—The conjunctive measuring scales of physical sciences are not applicable to the behavioral sciences. "A relativistic solution is proposed based on a postulated model for science in which the relations of the whole population of variables are to have maximum simplicity." The linear simplex and the general simplex are described. The search for the remaining desideratum—an absolute zero—leads to the concept of contingent zeros. Contingent zeros stand in a hierarchy with respect to their projections on the "Master

zero" variable in the inter-correlating set of the lowest zero (in terms of mutual regression).—G. Rubin-Rabson.

7389. Ghiselli, Edwin E. (U. California) **Moderating effects and differential reliability and validity.** *J. appl. Psychol.*, 1963, 47(2), 81-86.—Classic psychometric theory holds that errors of measurement and of prediction are of the same magnitude for all individuals. Interactive effects are not recognized, and the psychological structure of all individuals is taken to be the same. To increase reliability and validity of measurement, then, attention is entirely focused on improvement of measuring devices. However, a substantial body of evidence indicates there are systematic individual differences in error, and in the importance a given trait has in determining a particular performance. Reliability and validity of measurement can be increased by the use of moderator variables which predict individual differences in error and in the importance of traits. (16 ref.)—*Journal abstract.*

7390. Cooley, William W., & Lohnes, Paul R. (Harvard U.) **Multivariate procedures for the behavioral sciences.** New York: John Wiley, 1962. x, 211 p. \$6.75.—Intended to implement a course in multivariate analysis, this book presents the mathematics and behavioral science illustrations of these multivariate techniques: (a) multiple and canonical correlation, (b) multivariate analysis of variance and covariance, (c) multiple-discriminant analysis, (d) classification procedures, and (e) factor analysis. Provided for each procedure are "flow charts for programming any digital computer . . . [and] FORTRAN-coded, tested, and proven computer programs," where FORTRAN is the IBM coding language acceptable to IBM 704, 709, and 7090 computers. Utility subroutines for matrix inversion are shown in the last chapter, as well as methods for extracting latent roots and vectors used in the computer programs contained in the book.—R. Perloff.

7391. Faverge, J. M., Flament, C., de Groot, A., Knops, L., Reuchlin, M., & Yela, M. **Les problèmes de la mesure en psychologie: Symposium de l'association de psychologie scientifique de langue française.** [The problems of measurement in psychology: Symposium of the Association of Scientific Psychology of the French Language.] Paris, France: Presses Universitaires France, 1962. 184 p. NF 1200.—A report of the March 1961 meeting at the University of Amsterdam and discussions about the stages of measurement, the significance of measurement in psychology, psychophysical measurement, psychometric problems, the psychological scope of factor analysis, and measurement in social psychology.—C. J. Adkins.

7392. Moon, John W. (U. Alberta, Canada) **A note on "Pattern Variants on a Square Field."** *Psychometrika*, 1963, 28(1), 93-95.—It is shown how results of Prokhovnik on the number of pattern variants that may be formed by k markers on a square network of m^2 positions may be derived more simply by means of a combinational theorem of Pólya's, which may also be used to solve systematically many other problems of this type.—*Journal abstract.*

7393. Reuchlin, Maurice. (École Pratique Hautes Études, Paris, France) **Les méthodes quantitatives**

en psychologie. [Quantitative methods in psychology.] Paris, France: Presses Universitaires France, 1962. viii, 454 p. NF 20.—Demonstrating first that quantitative problems in psychology do not differ in nature from those posed by modern physical science, the measurement of sensations and mental capacities by methods appropriate to each is then reviewed. An attempt is made to specify what is being measured and to determine the proper psychological dimensions on which these measurements must be based. A 2nd section deals more directly with methodological technique, discussing concepts such as personality type, mental age, threshold, sampling, correlation, factor analysis, and analysis of variance. There is a concerted effort throughout to integrate experimentation based on the study of single isolated variables with the statistical analysis of more complex ensembles of variables and even with the analysis of much less tidy clinical observations. (420 ref.)—G. H. Mowbray.

7394. Thompson, John W. (University Coll., London, England) **Bi-polar and unidirectional scales.** *Brit. J. Psychol.*, 1963, 54(1), 15-24.—By comparison with physics, the dynamic aspects of psychological measurement have not received sufficient attention. In psychology there is a need for categories that are fundamentally bi-polar as well as for single unidirectional categories. The consequences are discussed: (a) for the overall classification of scales, and (b) for the application of Guttman scaling techniques. (30 ref.)—*Journal abstract.*

7395. Ward, Lorne H. (U. Colorado) **Two interpretations of highly correlated measures.** *Psychol. Rep.*, 1962, 11(2), 407-409.—"Simply because behavioral variables are highly correlated does not necessarily mean that they are 'measures' of a single psychological variable as has often been assumed in psychological measurement. There may be more than one variable involved." Ways are explored "in which it might be determined whether highly correlated measures were 'getting at' the same or different variables."—B. J. House.

7396. Zimmer, Charles E. **Chance distribution of inconsistent response patterns in paired comparison and multiple ranking designs.** *USAF PRL tech. docum. Rep.*, 1963, No. 63-1. iii, 5 p.—Comparative judgments are used in developing scales for various personnel and occupational criteria. In scaling data from paired comparisons, frequency of inconsistent responses is crucial. To determine whether information from the simpler and more economical multiple ranking design can be evaluated by the same techniques as for a complete paired comparison design, computer programs were adapted whereby the full population of possible response patterns could be randomly sampled to determine the chance distribution of inconsistent responses for both designs. Results for the 1000 randomly selected patterns showed that the multiple rank order design restricts the possible number of response patterns and reduces the frequency of inconsistent patterns. The distributions were so different that techniques devised for testing significance of extreme frequencies for data from the classic paired comparison design are inappropriate for evaluating extreme occurrences in multiple ranking data. Since the multiple ranking distribution approximates the normal distribution, it would be suitable to evaluate empirical data by comparison with

the parameters here determined for the random sample of the full population of response patterns.—*USAF PRL.*

Experimental Design

7397. Binder, Arnold. (Indiana U.) Further considerations on testing the null hypothesis and the strategy and tactics of investigating theoretical models. *Psychol. Rev.*, 1963, 70(1), 101-109.—David A. Grant has argued that it is inappropriate to design experiments such that support for a theory comes from acceptance of the null hypothesis. The present article points out that while this position could be defended in Fisher's approach to testing statistical hypotheses, it could not in the Neyman-Pearson approach or on more general scientific grounds. It is emphasized that one optimally designs experiments with enough sensitivity for rejecting poor theories and accepting useful theories, whether acceptance or rejection of the null hypothesis leads to empirical support. The argument that, in the procedure to which Grant objects, an insensitive experiment is more likely to lead to support for a theory is shown to be only a special case of the argument against bad experimentation. (37 ref.)—*Journal abstract.*

7398. Crowell, Fred A., Schultz, Charles B., & Kogan, William S. (U. Washington) Development of a multiple schedule baseline technique. *Psychol. Rep.*, 1962, 11(2), 335-340.—4 steps in developing a base-line are described: "(1) acquisition of discrimination, (2) generalization, (3) nonreinforced intervals, and (4) tachistoscopic presentation of stimuli. Sample data were presented illustrating the various phases of the baseline that were obtained from adult male psychiatric patients from a VA General Medical Hospital. It was suggested that the multiple schedule procedure has a number of research applications. Several of these applications in the areas of personality assessment and discrimination learning were described."—*B. J. House.*

7399. Stricker, G. (U. Rochester) An approach to assessing the meaning of "no change" in a pre-post experimental design. *J. gen. Psychol.*, 1962, 67(2), 237-240.—A method for analyzing data from "before and after" experimental designs in which Ss are used as their own control—the direction of change is the significant datum and the incidence of no change is high—was described and related to the Adjective Check List. The method involved the successive applications of a 1-tailed binomial test and a 2-tailed sign test. The former is used to assess the significance of the proportion of the sample affected by the experimental condition and the latter to assess the significance of directionality of change.—*G. Stricker.*

Formulas & Calculations

7400. Block, Jack. (U. California, Berkeley) The equivalence of measures and the correction for attenuation. *Psychol. Bull.*, 1963, 60(2), 152-156.—In literature reviews and critiques, measures are often evaluated in regard to their conceptual equivalence. In making this evaluation, the empirical correlation between the 2 measures being compared should be corrected for attenuation at least approximately. Unless this correction is applied, alternative measures

may be presumed to be importantly different when, giving due weight to the unreliabilities present, it may be seen that the identical underlying dimension is being reflected. In psychology, where enough discrepancies already characterize our findings, this interpretive error should not deny us the occasional equivalences that come along.—*Journal abstract.*

7401. Feldt, Leonord S. (State U. Iowa) Note on use of extreme criterion groups in item discrimination analysis. *Psychometrika*, 1963, 28(1), 97-104.—The purpose of this note is to reconsider the Kelley-Cureton definition of optimal extreme groups for estimating item-criterion correlations. Optimal tail per cents are derived, using the criterion of minimum sampling variance of the tetrachoric correlation coefficient, and the findings are related to earlier work of Mosteller. It is shown that upper and lower 27% groups yield the most precise estimate of the tetrachoric coefficient only when the population correlation is close to zero. When the population value is .4, extreme 20% groups provide estimates with the smallest sampling error variance. It is further shown, however, that 27% extremes yield highly efficient estimates. Thus no change is recommended in traditional item analysis procedures.—*Journal abstract.*

7402. Gocka, Edward F. (VA Hosp., American Lake, Wash.) An algebraic computation of weights for Thurstone's analytic method. *Psychol. Rep.*, 1962, 11(2), 507-514.—A short algebraic computational procedure for calculating weights is described. Computed weights are compared with Thurstone's weights and their use is illustrated in examples for 2 different rotational methods.—*B. J. House.*

7403. Hazewinkel, Aart. (Netherlands Inst. Preventive Medicine, Leiden) A note concerning the Creager-Valentine paper. *Psychometrika*, 1963, 28(1), 105-108.—The U_1 statistic discussed by Creager and Valentine in a recent paper is defined as a standard error of estimate for the regression of a composite, consisting of n components, on the $n-1$ components, exclusive of the j th component. It is shown that this standard error equals the standard error of estimate for the prediction of the j th component from the other $n-1$ components. This equality is used to suggest an efficient procedure to compute all primary uniquenesses U_1 .—*Journal abstract.*

7404. Huygelier, N. X^2 als discriminatie-index in de item-analyse. [X² as an index of discrimination in item-analysis.] *Tijdschr. Stud.-Beroepsorient.*, 1962, 9, 32-39.—An adaptation is described of the chi square test by dividing the sample in 2 groups: strong and weak (1 degree of freedom). Also presented is a formula for the differences between comparable elements of both groups in order to find whether the chi square is significant.—*R. Piret.*

7405. Lienert, G. A. (Hamburg U., Germany) Die zufallskritische Beurteilung psychologischer Variablen mittels verteilungsfreier Schnelltests. [Statistical evaluation of psychological variables by distribution-free rapid tests.] *Psychol. Beitr.*, 1962, 7(2), 183-217.—A comprehensive review of different types of distribution-free statistical tests, characterized by economy (short or rapid tests). The review is followed by research examples and applications of these tests. Some distribution-bound short tests and

some quick methods of estimating parameters are mentioned. (40 ref., English & French summaries)—*H. J. Priester.*

7406. Lord, Frederic M. (Educational Testing Service) **Biserial estimates of correlation.** *Psychometrika*, 1963, 28(1), 81-85.—Broghden's coefficient of selective efficiency and Clemans' χ are more efficient than biserial r when the correlation is high. Some empirical sampling studies are reported comparing the standard errors of these statistics.—*Journal abstract.*

7407. McLean, James F., & Dufort, Robert H. (Wake Forest Coll.) **Note on the computation of rate of response directly from a cumulative record.** *Psychol. Rep.*, 1962, 11(2), 332.—Description of a convenient calculational method.—*B. J. House.*

7408. Melton, Richard S. (Psychological Corp.) **Some remarks on failure to meet assumptions in discriminant analyses.** *Psychometrika*, 1963, 28(1), 49-53.—The linear discriminant function and the generalized distance function, 2 special cases of discriminant technique, require multivariate normality and homogeneous variance-covariance matrices, and hence utilize only mean differences among groups. The more general methods can also utilize differences in variances and/or covariances. Tables are given showing the discriminatory value of differences in means, variances, and intercorrelations, taken singly. Equations which utilize all such differences are given for the normal multivariate distribution.—*Journal abstract.*

7409. Moses, Lincoln E., & Oakford, Robert V. **Tables of random permutations.** Stanford, Calif.: Stanford Univ. Press, 1963. 233 p. \$7.00.—For many common uses, investigators in biological and social sciences find tables of random permutations easier to use than tables of random numbers. The volume contains tables of random permutations of 9, 16, 20, 30, 50, 100, 200, 500, and 1000 integers. The RAND deck of a million random digits was the source.—*C. T. Morgan.*

7410. Tupes, E. C. (Aerospace Medical Division, AFSC) **Correcting correlation coefficients for group heterogeneity when one variable is a dichotomy.** *Psychometrika*, 1963, 28(1), 43-48.—A method is illustrated for estimating correlation coefficients and mean criterion scores in a full-range population from bivariate distributions available in a selected sample when the criterion is a dichotomy. The proposed method requires only the assumptions needed for use of formulas for correcting correlation coefficients of restriction of range when both variables are continuous and is suitable for use when restriction is due to either direct or indirect selection.—*Journal abstract.*

7411. Tupes, Ernest C. (Lackland AFB, Tex.) **Correction of correlation with a dichotomous variable for restriction in range.** *USAF PRL tech. docum. Rep.*, 1962, No. 62-24. iii, 5 p.—In evaluating tests proposed for screening recruits, it is necessary to estimate correlations for a full range of scores with some Air Force criterion of success from correlations based on the selected group. A method is presented for estimating the correlation for the full-range population from distributions of scores for the successful and unsuccessful groups of the selected

sample. The method requires only the assumptions made for the standard formulas used to correct correlation coefficients for restriction of range when both variables are continuous. It is suitable whenever the criterion is a dichotomy, whether restriction is due to direct or indirect selection.—*USAF PRL.*

Factor Analysis

7412. Anderson, T. W. (Columbia U.) **The use of factor analysis in the statistical analysis of multiple time series.** *Psychometrika*, 1963, 28(1), 1-25.—Factor analysis has been proposed and used as a method of statistical analysis of several measurements made on one individual repeatedly over a period of time. This paper discusses some difficulties in applying factor analysis to multiple time series and attempts to indicate to what extent such methods can accomplish the goals of time series analysis. Some other methods are suggested.—*Journal abstract.*

7413. Cattell, Raymond B., & Gorsuch, Richard L. (U. Illinois) **The uniqueness and significance of simple structure demonstrated by contrasting organic "natural structure" and "random structure" data.** *Psychometrika*, 1963, 28(1), 55-67.—The study compares the extent to which naturally structured data and artificial, relatively random data (both with the same basic parameters) produce simple structure factors which are uniquely determined. 2 examples of unstructured matrices were compared with the ball problem matrix. The results show that an oblique position of maximum hyperplane count in the structured data differs from that in the unstructured by reaching a significantly more unique position in terms of the exactitude with which it is rediscoverable when starting from different positions, and by reaching (at the maximum) a significantly higher hyperplane count (28 ref.).—*Journal abstract.*

7414. Gibson, W. A. (Dept. Army) **Factoring the circumplex.** *Psychometrika*, 1963, 28(1), 87-92.—This paper presents a way of factoring the Guttman circumplex to get factor weights whose pattern is close to that postulated by Guttman for the circumplex. An empirical example, including a crude procedure for diagonal estimation, is shown. Other sources of nonuniqueness are discussed, and the limitation to odd-numbered complexity for the tests is indicated. An orthodox factor analysis is applied to the example, and this provides a basis for comparison of the 2 opposing models.—*Journal abstract.*

7415. Guilford, J. P., & Zimmerman, Wayne S. (U. Southern California) **Some variable-sampling problems in the rotation of axes in factor analysis.** *Psychol. Bull.*, 1963, 60(3), 289-301.—In basic research with factor analysis, irregularities of sampling experimental variables make computer rotations and oblique solutions of dubious value. Both are functions of the selection of variables. Criteria of simple structure are sufficiently loose to permit different rotational solutions to satisfy them. Illustrative examples are given, comparing solutions with quartimax, varimax, and orthogonal graphic rotations. Only the latter gave satisfactory psychological meaningfulness.—*Journal abstract.*

7416. Weitzman, R. A. (Bar-Ilan U., Israel) **A factor analytic method for investigating differences between groups of individual learning**

curves. *Psychometrika*, 1963, 28(1), 69-80.—In this curves are described quantitatively by single numbers which are used in a statistical test to determine whether 2 or more groups of learning curves are significantly different. The method has some logical advantages over prevailing methods in that it avoids the use of averaging learning curves and of arbitrary measures of slope and asymptote. Its disadvantage is computational. Since it involves the use of factor analytic procedures, it may be tedious to apply unless computation is carried out on a high-speed computer. (17 ref.)—*Journal abstract*.

GENERAL BOOKS & REFERENCE WORKS

7417. Havemann, Ernest. *The age of psychology*. New York: Grove Press, 1962. ix, 115 p. \$.50.—A paperback reprint of a book originally published in 1957, which in turn was a reprint, with revisions, of a series of articles appearing in *Life Magazine* in 1957.

7418. Miller, George A. (Harvard U.) *Psychology: The science of mental life*. New York: Harper & Row, 1962. xi, 388 p. \$.65.—“In this book I have tried to explain what the science of psychology is like and how it got that way.” Emphasis is on key topics, presented in historical order. The more technological and applied aspects are omitted. Interwoven with discussions of traditional experimental areas are biographies of Wundt, William James, Galton, Pavlov, Freud, and Binet. A glossary and suggestions for further reading are appended.—*H. P. David*.

ORGANIZATIONS

PROFESSIONAL PROBLEMS

7419. Kantor, J. R. (Chicago, Ill.) *Perspectives in psychology: XXI. Psychology: Scientific status-seeker*. *Psychol. Rec.*, 1962, 12, 351-357.—Scientific status-seeking is praiseworthy and an essential ingredient in the progress of science since “scientists must constantly improve their status by expanding their goals and operations.” Psychology has achieved such status by abjuring mind, sensation, and other invalid or metaphysical constructs and by proper organism orientation. Author proposes “it is unnecessary to go beyond the postulate that psychological events are exclusively the interbehaviors of organisms and stimuli objects.” Psychology, having attained status, can now help other sciences based on the common assumptions of analysis of “event-fields and the nature of the observer-observed relation.”—*R. J. Seidel*.

7420. Lucier, Omer, & Lebo, Dell. (U. Pennsylvania) *Writing for machine retrieval*. *J. gen. Psychol.*, 1962, 67(2), 199-203.—Machine information retrieval, or an electro-mechanical system of searching for information in scientific publications, is inevitable. The necessity of the writer's cooperation in preparing articles for easy and accurate information retrieval, by the identification of key issues, is stressed.—*D. Lebo*.

Psychological Personnel

7421. Robinowitz, Ralph. (VA Hosp., Waco, Tex.) *Psychologist in nursing education*. *J. gen. Psychol.*, 1962, 67(2), 225-227.—Clinical psychol-

ogists for many years have played an important role in the teaching and clinical training of several related disciplines, including the field of nursing. A program has been developed at Veterans Administration Hospital, Waco, Texas, utilizing a psychology consultant on training and training methods, especially with nurses and psychiatric aides. The psychologist contributes to the insights, understanding, and skills of the staff nurse working with patients in groups. The nurse can thus build relationships which are necessary to patient betterment and effective functioning of the nurse. The psychiatric aide assigned to a continuous group throughout the day gains a greater awareness of the effect one has on another's behavior. New aides receive in-service training of group procedures. Student nurses observe how behavior may change and learn the overall meaning of a group situation.—*R. Robinowitz*.

Training in Psychology

7422. Hau, Theodor F. *Klinische Psychologie unter tiefenpsychologischem Aspekt*. [Clinical psychology under the aspect of depth-psychology.] *Psychol. Rdsch.*, 1963, 14(2), 115-124.—Many problems in clinical psychology can only be treated successfully if the psychologist is aware of unconscious motivation and inhibited drives. Since intellectual discussion is not sufficient for gaining experience in such matters, a supplementary analytic-therapeutic education is advocated for clinical psychologists.—*W. J. Koppitz*.

PSYCHOLOGY ABROAD

7423. Adams, James F. (Temple U.) *The status of psychology in the universities of Austria and Germany: 1960-1961*. *J. gen. Psychol.*, 1962, 67(2), 337-347.—Research interests, biographical data concerning the director of the psychology institute, size of student enrollments, and a survey of physical facilities are given for the following universities in Austria and Germany. Austria: Karl-Franzens, Graz; Leopold-Franzens, Innsbruck; University of Vienna. Germany: Free University of Berlin, West Berlin; Humboldt, East Berlin; Rheinische Friedrich-Wilhelm, Bonn; University of Cologne; Friedrich-Alexander, Erlangen; Johann Wolfgang Goethe, Frankfurt; Albert-Ludwig, Freiburg in Breisgau; Georg-August, Göttingen; University of Hamburg; Ruprecht-Karl, Heidelberg; Karl-Marx, Leipzig; Johannes Gutenberg, Mainz; Phillips, Marburg; Ludwig-Maximilians, Munich; Westfälische Wilhelms, Münster; University of Saarbrücken, Saar; Eberhard-Karls, Tübingen; Julius-Maximilians, Würzburg.—*Author abstract*.

7424. Hopkins, J. (National Inst. Industrial Psychology, London, England) *Bibliographie des recherches psychologique conduites en Afrique*. [Bibliography of psychological research conducted in Africa.] *Rev. Psychol. appl.*, 1962, 12(3), 201-213.—“A 253-item bibliography, chronologically arranged, and grouped under 6 headings: I. General (30 items) II. Sensori-motor aptitudes (16 items) III. Intellectual aptitudes (63 items) IV. Psychology of work (28 items) V. Social psychology and personality (77 items) and VI. Psychiatry (39 items).”—*E. G. White*.

7425. **Státní Lékařská Knihovna.** [National Medical Library] (Prague, Czechoslovakia) **The annual of Czechoslovak medical literature: 1959.** Prague, Czechoslovakia: Státní Zdravotnické Nakladatelství [State Health Publishing House], 1961. xvi, 732 p.—The annual has 4 sections. Part III, the major division, lists journals alphabetically; and under each journal the authors and titles of articles from each issue of the year are listed. The titles are first given in the original language and then in English translation. In Part II, almanacs are listed in the same manner. In Part I, "Books," and in Part IV, "Works of Czechoslovak Authors Published Abroad," the materials are classified under subject headings.—*E. Y. Borrowman.*

7426. **Walther, Léon.** **La technopsychologie, ses origines et sa portée sociale dans le cadre de la civilisation occidentale.** [Applied psychology, its origins and its social import within the framework of western civilization.] *Rev. Psychol. appl.*, 1962, 12(3), 141-161.—"A brief history of systems of values contrasts those of the East (China, India) with those of the West. . . . 'Technopsychologie' coined by Liepmann, Clarapède, and Walther, is defined as the application of psychology to the method of work with the aim of adapting work to the needs of man. . . . The importance of rhythm is stressed in making work meaningful. Automation is discussed as a possible means of deepening culture, if leisure is used for spiritual purposes and workers paid as consumers. A fundamental transformation of economics and of values is envisioned which may bring about a synthesis of Eastern (Indian) and Western philosophies." (29 ref.)—*E. G. White.*

EXPERIMENTAL PSYCHOLOGY

7427. **Berry, R. N.** (Indiana U.) **Task difficulty, performance, and skin conductance levels.** *Percept. mot. Skills*, 1962, 15(2), 474.—The data analysis showed that changes in task difficulty had no significant effect on skin conductance levels (SCLs). Each S fluctuated throughout the entire session within his own narrow range of conductances. Further, it was evident that, for a given S, changes in task difficulty did not substantially change his rank order of performance within the group. Since changing the level of problem difficulty changed neither the level of motivation, as defined by the SCL, nor rank order of performance, it may be hypothesized that such changes in rank order of performance, if they are observed, may be attributed to changes in level of motivation.—*W. H. Guertin.*

7428. **Greenspoon, Joel.** (Florida State U.) **The effects on transfer of time delay and task similarity: A literature review.** *USAF AMRL tech. docum. Rep.*, 1963, No. 63-22. iv, 21 p.—A review of selected literature pertinent to the effects of similarity and delay on transfer is reported. Emphasis is given to the more recent research and that which seems to make a greater contribution to knowledge of these effects—especially studies in which similarity and time delay were manipulated jointly. Although considerable research has been accomplished, the effects of similarity and time delay (either singly or jointly) are not known with sufficient precision to enable satisfactory use outside of the narrowly con-

strained laboratory contexts, if even there. Effective prediction on the basis of similarity will depend on the development of a rigorous and reliable technique for its measurement. The effects of delay can only be adequately determined after this is accomplished. (59 ref.)—*USAF AMRL.*

7429. **Hammes, J. A.** (U. Georgia) **Suggestibility and humor evaluation.** *Percept. mot. Skills*, 1962, 15(2), 530.—The effect of a structured suggestibility condition based on a theoretical peer evaluation was strong. A definite sex difference also emerged, in that female Ss in both low- and high-anxious groups judged the cartoons relatively more humorous than did male Ss in both anxiety groups—even those cartoons suggested to be rated low in humor. Appreciation of light humor material appears, therefore, to be a function not only of manifest anxiety and sex, but also of suggestibility, structured in this study in terms of a theoretical peer evaluation.—*W. H. Guertin.*

7430. **Moeller, G., & Chattin, C. P.** (USN Medical Research Lab.) **The Palmar Perspiration Index and pursuit tracking.** *Percept. mot. Skills*, 1962, 15(2), 463-473.—The utility of the Palmar Perspiration Index (PPI) as a measure of psychophysiological state was evaluated using a simple pursuit tracking task. 36 naval enlisted men served as Ss in the 4 conditions of the experiment which was based on a $2 \times 2 \times 20$ factorial design, with dimensions of initial control-display ratio, final ratio, and blocks of 4 tracking trials. Each S participated in 80 trials over 4 days; PPIs were taken and mean time on target computed for blocks of 4 trials. Palmar perspiration was found to decrease and tracking performance increase with experience in the experimental situation. PPI appears as useful as other more complex measures of psychophysiological state.—*W. H. Guertin.*

7431. **Thor, D. H.** (U. of Georgia) **Diurnal variability in time estimation.** *Percept. mot. Skills*, 1962, 15(2), 451-454.—6 Ss estimated 30- and 120-sec. intervals by the production method at 6 times of day. A systematic diurnal variability in estimate duration was revealed. Shape of the diurnal function reflected day or night activity patterns. Daily afternoon naps by one S were evident in her time estimate data. Diurnal blood pressure curves tended to resemble diurnal time estimate curves. The importance of the results are twofold. First, and quite obviously, they indicate the existence of a diurnality in time estimation and imply the need for appropriate control in all time estimation studies. Secondly, the results point to the influence of an underlying physiological variable.—*W. H. Guertin.*

PSYCHOPHYSICS

7432. **Atkinson, Richard C.** (Stanford U.) **A variable sensitivity theory of signal detection.** *Psychol. Rev.*, 1963, 70(1), 62-77.—A 2-process model for signal detection is proposed that is applicable to both yes-no and forced-choice experiments. One process describes systematic changes that may occur in the S's sensitivity level to external stimuli; the other process defines a learning mechanism that determines trial-to-trial changes in the S's decision role as information accrues to him. From the theory one can derive predictions for gross statistics like

receiver-operating-characteristic curves and also for detailed sequential effects such as autocorrelation functions defined over stimulus-response runs. Predictions for sequential effects are particularly important in evaluating the theory and provide a valuable insight into the character of the detection process. Application of the theory to various special cases is considered; some predictions are derived and checked against experimental data. (22 ref.)—*Journal abstract*.

7433. Bernyer, G. Étude sur la validité d'une échelle de sensation d'effort musculaire. [The validity of a scale for estimating muscular effort.] *Année psychol.*, 1962, 62(1), 1-15.—With the aid of Pierons' gravimeter, Stevens' direct estimate method was used for subjective estimation of muscular effort in weight-lifting. 8 Ss lifting 8 different weights in succession: gave highly variable replies to the same stimulus. The results differed significantly according to Ss and to light, medium, and heavy weights. Ss' subjective responses cannot be considered basic to a general law.—G. Rubin-Rabson.

7434. Davidson, Robert S. (Bryn Mawr Coll.) Relevance and category scales of judgment. *Brit. J. Psychol.*, 1962, 53(4), 373-380.—Once adaptation levels had been established in category judgements of the height and lightness of a series of grey blocks, a tall, light block was introduced, and presented with each of the series. $\frac{1}{2}$ of the Ss were instructed to reject any block which was lighter than it, and half to reject only those taller. After each decision both groups categorized height and lightness as before. Shifts in scales of judgment were associated with differences in the relevant attributes of the standard.—*Journal abstract*.

7435. Eisler, Hannes, & Ottander, Chris. (U. Stockholm, Sweden) On the problem of hysteresis in psychophysics. *J. exp. Psychol.*, 1963, 65(6), 530-536.—Subjective velocity was estimated by modified methods of magnitude estimation and category rating, presenting the stimuli in ascending and descending series separately. Hysteresis was found and the mid-points were predicted with good precision from a model describing the relation between category and magnitude scales. It was shown that the main factor producing hysteresis is a difference in the "subjective zero," ϕ_0 , of the power function $\psi = k(\phi - \phi_0)^2$, between ascending and descending series. It is tentatively suggested that the same effect may account for the time-order error.—*Journal abstract*.

7436. Ekman, Gösta. (U. Stockholm, Sweden) A direct method for multidimensional ratio scaling. *Psychometrika*, 28(1), 33-41.—A generalization of direct ratio scaling methods to multidimensional ratio scaling is described. This method requires an O to report the proportion of a standard percept that is contained in a given percept and vice versa. The method was developed to meet requirements for experimentation in such areas as color vision, gustation, and olfaction. (15 ref.)—*Journal abstract*.

7437. MacKay, D. M. (U. Keele, Staffordshire, England) Psychophysics of perceived intensity: A theoretical basis for Fechner's and Stevens' laws. *Science*, 1963, 139(Whole No. 3560), 1213-1216.—A "matching-response" model of psychophys-

ical judgment is proposed, in terms of which power-law relationships would be expected between perceived intensity and stimulus strength, even though receptors had logarithmic response characteristics. On this model, observed differences in exponent for various modalities would reflect differences in coupling coefficients, rather than in transducer mechanisms.—*Journal abstract*.

7438. Poulton, E. C., & Simmonds, D. C. V. (Applied Psychology Research Unit, Cambridge, England) Value of standard and very first variable in judgments of reflectance of grays with various ranges of available numbers. *J. exp. Psychol.*, 1963, 65(3), 297-304.—1200 unsophisticated O's each made 2 numerical estimates (NEs) of the magnitude of the reflectance of a variable gray with respect to a standard typically called 10. With standards of high reflectance, variables with reflectances still higher gave the larger exponents. The reverse was the case with standards of low reflectance. The effects increased as the range of numbers available to O was reduced. Averaging exponents from multiple and fractional estimates produced larger means when the reflectance of the standard was high. Fractional NEs were influenced by prior multiple NEs and vice versa. These results raise doubts about the generality of direct measurements of sensory magnitude. (16 ref.)—*Journal abstract*.

7439. Stewart, John L. (U. Arizona) Quantitative laws for sensory perception. *Psychol. Rev.*, 1963, 70(2), 180-192.—A model for subjective intensity derived from an elementary sensor provides linear filtering, rectification with variable power law exponent, and finite time averaging. The model is consistent with the physiological measure of average neural pulse rate. Simplified mathematical representations are employed to explain partial and complete masking. The Stevens law and a modified Weber law are derived as special cases. When extended to an array of sensors, a broadly significant pattern theory for recognition results which explains diplacusis and other phenomena. Direct electronic simulation may be achieved (and has) so as to yield solutions to problems which are too complex to be analyzed in other ways. (18 ref.)—*Journal abstract*.

7440. van Laer, John. (Northwestern U.) Response bias in psychophysical judgments: A test of Luce's model. *J. gen. Psychol.*, 1962, 67(2), 283-289.—Luce's theoretical account of time-order effects in psychophysical judgments was tested in the context of brightness discrimination. 4 Os each made 2000 absolute judgments of 3 stimuli, designated Light (L), Medium (M), and Dark (D), in 7 temporal sequences of presentation: M, M, M, and the 6 permutations of L, M, D. Obtained response probabilities were compared with theoretical probabilities computed from estimates of the parameters of Luce's model. The correspondence between theory and data was good for all Os. However, chi-square tests with results were statistically significant for 2 of the 4 Os.—*Author abstract*.

PERCEPTION

7441. Ammons, R. B., & Ammons, C. H. (Montana State U.) Perception bibliography: III. Baldwin's dictionary, 1883-1892. *Percept. mot. Skills*, 1962, 15(2), 559-562.—A continuing, unan-

notated bibliography appearing irregularly in this journal.—*W. H. Guertin.*

7442. Bakan, P. (Michigan State U.) **Retrospective awareness of error in time estimation.** *Percept. mot. Skills*, 1962, 15(2), 342.—If S makes a numerical estimate of an elapsed time interval and then makes a retrospective judgment of the accuracy of that estimate, does the accuracy judgment increase information about the temporal experience? When Ss judge the accuracy of a numerical estimate of a time interval they do so with some validity. Evidence that such a result is not specific to the conditions of this experiment is found in a paper by Wertheimer (see 29: 2042) who reported that Ss make better than chance judgments of auditory threshold judgments. It appears that degree of relationship between an overt verbal indicator and experience may be increased by elaboration of the indicator.—*W. H. Guertin.*

7443. Buck, Leslie. (University Coll., London, England) **Auditory perception of position and speed.** *J. appl. Psychol.*, 1963, 47(3), 177-183.—2 experiments were carried out to test the ability of train drivers to use sounds for the recognition of position and speed. The procedure involved playing tape recordings of 2 steam locomotives leaving known points and traveling at known speeds to experienced train drivers in a laboratory situation. Results show that Ss were able to recognize the position recordings better than predicted by chance, and that they were able to rank the speed recordings relative to each other, but they were not able to assign accurate values to the latter in terms of miles per hour. There were no significant differences in respect of the 2 locomotives.—*Journal abstract.*

7444. Davis, Roy. **L'estimation d'intervalles temporels en comptant plus ou moins rapidement.** [Estimation of time intervals at varying rates of counting speed.] *Annee psychol.*, 1962, 62(1), 29-44.—Variability in estimation is less for a rate of counting interval of .5 sec. than for any other value between .25 sec. and 4 sec. This effect is so marked that there is less variability in estimating 1-4 sec. when the optimum rate is .5 sec., than in estimating 1-2 sec. when a less favorable rate is used.—*G. Rubin-Rabson.*

7445. Garner, W. R., & Lee, W. (Johns Hopkins U.) **An analysis of redundancy in perceptual discrimination.** *Percept. mot. Skills*, 1962, 15(2), 367-388.—The total amount of discrimination which can be obtained depends on an interaction between the duration of the stimulus, the number of independent variables operating, and an ideal rate which is a measure of the basic discriminability of the single stimulus element. Maximum information transmission is obtained if both the stimulus variables and the corresponding perceptual processes are independent. If neither is independent, then discrimination cannot be improved. If, however, the perceptual processes are independent, then the stimulus variables can be made redundant and there can be a gain in discrimination. Illustrative data are presented from an experiment involving visual pattern discrimination.—*W. H. Guertin.*

7446. Gregg, Lee W., & Karn, Harry W. (Carnegie Inst. Technology) **Perceptual responses as a**

function of the sequential properties of multiple visual stimuli. *J. exp. Psychol.*, 1963, 65(2), 124-130.—Circles located at the points of a triangle were differentially loaded with runs of dots and no dots averaging 2, 4, and 8 in length. Different combinations of loading and location were tachistoscopically presented to 3 experimental groups with a control group receiving random dot and no-dot combinations at all locations. Experimental groups performed significantly better in terms of error reduction than did the control group. However, variance analysis failed to show an effect of run length, per se. Despite the statistical results, an effect of run length is suggested by an analysis in which straight lines were fitted to the data by the method of least squares.—*Journal abstract.*

7447. Harris, Charles S. (Harvard U.) **Adaptation to displaced vision: Visual, motor, or proprioceptive change?** *Science*, 1963, 140(Whole No. 3568), 812-813.—After seeing his hand through wedge prisms, an S points incorrectly with that hand at auditory as well as visual targets. The other hand is virtually unaffected. Thus, the change cannot be solely visuomotor or visual. Other evidence suggests that it is a change in felt hand location, rather than motor learning. When the S's adapted hand feels as if it is pointing straight ahead, for example, it is actually pointing off to one side.—*Journal abstract.*

7448. Immergluck, Ludwig. (San Francisco State Coll.) **Perceptual judgment as a function of context.** *Brit. J. Psychol.*, 1962, 53(4), 447-450.—Perceptual contrast has been traditionally demonstrated with stimulus attributes involving size, perspective, or brightness of given stimulus objects. The present investigation aims to examine the operation of perceptual contrast in such qualitative dimensions as geometric stability, symmetry, or general design quality of a stimulus. The results show that the stimulus figure, a square, was perceived as geometrically more perfect when presented in a disordered and unstable context as compared with an ordered and stable one.—*Journal abstract.*

7449. Kaswan, Jacques, & Young, Stephen. (U. California, Los Angeles) **Stimulus exposure time, brightness, and spatial factors as determinants of visual perception.** *J. exp. Psychol.*, 1963, 65(2), 113-123.—In a forced choice task, 5 Ss chose between linear displays of dots arranged in pairs or evenly spaced presented at 8 exposure times ranging from .004 to .512 sec. and 8 intensities ranging from .09 to 11.84 m.L. Intensity had little effect on accuracy. Accuracy was largely a function of exposure time and, for paired designs, the amount of relative spatial distance between to within pairs of dots. Detecting the presence or absence of stimuli was a joint function of exposure time and intensity and independent of relative spatial distance. The findings support the assumption that perception becomes differentiated over time, and indicate that relative spatial distance can be used as a stimulus measure of differentiation. A 2-phase process of the temporal development of perception is proposed.—*Journal abstract.*

7450. Klemmer, E. T. (IBM Research Cent., Yorktown Heights, N. Y.) **Perception of linear dot patterns.** *J. exp. Psychol.*, 1963, 65(5), 468-473.—Linear dot patterns were presented tachisto-

scopically by flashing randomly selected patterns on uniformly spaced light bulbs. The total visual angle was varied from 2.5° to 160° using 21 bulbs and, in a separate experiment, number of bulbs was varied from 11 to 35, using a fixed 1° spacing between bulbs. Perception was determined by a poststimulus cue requiring only a 1-bit response. Average accuracy of report was surprisingly insensitive to visual angle. The center bulbs were seen better than the end bulbs at all visual angles. When the spacing of bulbs was fixed at 1° and the number of bulbs increased from 11 to 35 the percent-error increased linearly with near perfect performance for 11 bulbs (poststimulus cue method). Comparison with previously reported data on the perception of linear dot patterns indicates that the earlier findings may have been due to memory rather than perception.—*Journal abstract.*

7451. McFarland, J. H. (Clark U.) Visual and proprioceptive changes during visual exposure to a tilted line. *Percept. mot. Skills*, 1962, 15(2), 322.—While S is vertical during exposure to a visual object tilted right, there are changes toward alignment in perceived orientation of the visual object tilted right and the vertical body axis, *vis.*, they appear rotated toward each other. The findings suggest that the tendency toward movement occurring during exposure to the tilted visual object plays a role in the observed perceptual changes.—*W. H. Guertin.*

7452. McFarland, J. H., Wapner, S., & Werner, H. (Clark U.) Relation between perceived location of objects and perceived location of one's own body. *Percept. mot. Skills*, 1962, 15(2), 331-341.—Under body tilt apparent body location (position at which body appears to be) is rotated beyond the physical body position in the direction of body tilt, whereas the apparent vertical (position of rod when perceived as vertical) is rotated beyond the physical vertical opposite the direction of body tilt. Under unsupported body tilt these changes increase for the apparent vertical and decrease for the body position. The results were interpreted in terms of the problem of constancy from an organismic point of view.—*W. H. Guertin.*

7453. Miller, Earl F., & Graybiel, Ashton. Rotary autokinesis and displacement of the visual horizontal associated with head (body) position. *USN Sch. Aviat. Med. NASA jt. res. Rep.*, 1963, Proj. MR005.13-6001, Subtask 1, Rep. No. 77; NASA Order R-47. ii, 10 p.—Continuous settings to the visual horizontal by the authors and 2 experienced test pilots were recorded during a 23-min. period. The background to the luminous line target was alternately illuminated for 2 min. then darkened completely for 5 min. All Ss performed in a similar and highly reliable manner, but the pilots manifested significantly less total error. In an upright position, the accurate and relatively stable perception of the horizontal was not appreciably influenced by the lack of visual cues; in a recumbent position, removal of these cues caused, after a brief lag period, a gradual spontaneous rotation of the phenomenal horizontal up to the maximum typical for each S. In addition, there was considerable fluctuant movement described as rotary autokinesis. These illusions disappeared almost instantaneously when the background was illuminated. Prolonged observation (30 min.) of the

target in the dark while recumbent resulted in a significant decrease in the illusion for one of the author Ss. (17 ref.)—*USN SAM & NASA.*

7454. Raab, David H. (Brooklyn Coll.) Backward masking. *Psychol. Bull.*, 1963, 60(2), 118-129.—In backward masking, perception of a test stimulus is suppressed by masking stimulation that is presented subsequently. Psychophysical studies of this phenomenon have utilized visual, auditory, and cutaneous stimuli. These masking studies are reviewed and their results discussed in terms of possible neural mediating mechanisms. (88 ref.)—*Journal abstract.*

7455. Segall, Marshall H., Campbell, Donald T., & Herskovits, Melville J. (U. Iowa) Cultural differences in the perception of geometric illusions. *Science*, 1963, 139 (Whole No. 3556), 769-771.—Data from 15 societies are presented showing substantial intersocietal differences of 2 types in susceptibility to geometric optical illusions. The pattern of response differences suggests the existence of different habits of perceptual inference which relate to cultural and ecological factors in the visual environment.—*Journal abstract.*

7456. Spence, Janet Taylor. (Northwestern U.) Contribution of response bias to recognition thresholds. *J. abnorm. soc. Psychol.*, 1963, 66(4), 339-344.—The influence of differential usage preference on verbal identification measures was investigated using a technique which closely mimics the typical recognition threshold investigation. Ss were unrestricted by E in their choice of responses and were presented with stimulus materials at varying duration levels. The stimuli, however, were presented in such a manner that Ss' partial perception could to some degree be controlled. These partial perceptions made 2 response alternatives equally appropriate, one a familiar word and the other a less familiar one. In 2 experiments varying in procedure, the frequency with which familiar responses occurred as guesses was significantly ($p < .01$) greater than the frequency of unfamiliar responses. (18 ref.)—*Journal abstract.*

7457. Spielberger, Charles D., & Denny, J. Peter. (Duke U.) Visual recognition thresholds as a function of verbal ability and word frequency. *J. exp. Psychol.*, 1963, 65(6), 597-602.—Effects of verbal ability and word frequency on visual-recognition thresholds were investigated. Words of low, moderate, and high frequency of occurrence in the Thorndike-Lorge word counts were tachistoscopically presented to college students selected on the basis of extreme scores on the ACE Linguistic scale. Inverse relationships were obtained between word frequency and recognition thresholds for both high and low verbal ability Ss. High ability Ss recognized low frequency words more rapidly than low ability Ss. (21 ref.)—*Journal abstract.*

7458. Thurlow, W. R. (U. Wisconsin) Probability of belonging in a given category as a determinant of perceived personality characteristics. *Percept. mot. Skills*, 1962, 15(2), 462.—S was presented with a photograph (head only) of a man, and was told that the photograph had been chosen at random from a set of 10 photographs, "x" of which were photographs of murderers. The value of "x" was made 0, 1, 3, 5, 7, 9, and 10, each value of "x" being used with a different photograph. Results showed

that for the category of "murderer," ratings of aggressiveness tended to increase, and ratings of self-control and honesty tended to decrease as probability of the photograph being that of a "murderer" increased. For the category "senator," ratings of self-control, honesty, and persuasiveness tended to increase as probability of the photograph being that of a senator increased.—*W. H. Guertin.*

7459. Wapner, S., McFarland, J. H., & Werner, H. (Clark U.) Effect of visual spatial context on perception of one's own body. *Brit. J. Psychol.*, 1963, 54(1), 41-49.—3 experiments, dealing with the effect of extension of surrounding visual spatial context on apparent size of body parts, were conducted. In the 1st 2 studies (48 Ss in each) the dependent variable was arm length, and in the 3rd study (24 Ss) the dependent variable was head width. It was found that apparent arm length and apparent head width are relatively larger in an "open-extended" visual spatial context than in a "close-confined" spatial context. These results are interpreted in keeping with developmental and sensory-tonic theory.—*Journal abstract.*

7460. Watanabe, T. (Okayama U., Japan) [An experimental study on the measurement of the threshold of closure phenomenon.] *Jap. J. Psychol.*, 1962, 33(3), 125-132.—The general purpose of the study was to determine whether tendency toward closure could be psychophysically measured. It was noted, while using diamond shaped figures, that the threshold of closure could be measured as a percentage of the perimeter of the figure presented compared with that of a complete one. It was concluded that it was possible to psychophysically measure the closure threshold and that the size of the threshold varied directly with the size of the apex angle so that figures with lower apex angles had lower thresholds.—*A. Barclay.*

Illusions

7461. Fox, B. H. (Cleveland Psychiatric Inst. & Hosp., O.) An unusual perception accompanying optokinetic nystagmus. *Percept. mot. Skills*, 1962, 15(2), 273-274.—In driving on a light road in sunlight, dark horizontal shadows or black tar lines seem to flicker in the periphery below while the gaze is centered on the road ahead. This may divert attention enough to increase hazard slightly. Possible sources of the phenomenon are suggested.—*W. H. Guertin.*

7462. Gruber, Howard E., King, William L., & Link, Stephen. (U. Colorado, Boulder) Moon illusion: An event in imaginary space. *Science*, 1963, 139(Whole No. 3556), 750-752.—The illusion was obtained with artificial moons viewed against a luminous ceiling, and also with an imaginary ceiling induced by first showing a luminous ceiling and then removing it before the moons were introduced.—*Journal abstract.*

7463. Smith, O. W., & Smith, P. C. (Cornell U.) An illusion of parallelism. *Percept. mot. Skills*, 1962, 15(2), 455-461.—An illusion of parallelism is reported in which the longitudinal axes of 2 physically parallel objects in an unrestricted everyday environment do not appear parallel. When Ss cause E to adjust a nearby pointer to appear parallel to a distant standard, large systematic errors at-

tributable to the illusion are obtained. The illusion is apparent to most Ss, in that when standard and variable appear parallel, Ss can perceive that they are not physically parallel. Individual differences in perceiving the illusion are moderately correlated.—*W. H. Guertin.*

Aftereffects

7464. Bakan, Paul, & Weiler, Ernest. (Michigan State U.) Kinesthetic aftereffect and mode of exposure to the inspection stimulus. *J. exp. Psychol.*, 1963, 65(3), 319-320.—Measures of kinesthetic aftereffect were taken on 3 groups of 48 Ss, differing in type of exposure to an inspection stimulus. Largest aftereffects were found for the group experiencing passive movement and smallest aftereffects were found for the group experiencing no movement of the inspection stimulus between thumb and index finger. A group experiencing active movement showed aftereffects intermediate in size between the other 2 groups. Results support a hypothesis of a relationship between attention, neural satiation, and aftereffects.—*Journal abstract.*

7465. Bakan, Paul, & Mizusawa, Kiyoe. (Michigan State U.) Effect of inspection time and direction of rotation on a generalized form of the spiral aftereffect. *J. exp. Psychol.*, 1963, 65(6), 583-586.—The spiral aftereffect, an apparent expansion or contraction of a spiral after fixation of the rotating spiral, is produced in a more general form as an apparent expansion or contraction of a square after fixation of a rotating spiral. Duration of the spiral-square aftereffect is a positive function of time of inspection of the spiral. Duration of the aftereffect is longer for the apparently expanding aftereffect than for the apparently contracting effect. Duration of the aftereffect appears to be influenced by the nature of the postrotation stimulus upon which it is projected. (21 ref.)—*Journal abstract.*

7466. Bakan, P., & Thompson, R. (Michigan State U.) On the relation between induced and residual kinesthetic aftereffects. *Percept. mot. Skills*, 1962, 15(2), 391-396.—The purpose of the investigation was primarily to determine the relationship between induced and residual kinesthetic aftereffect. Aftereffect was induced by 45-sec. stimulation with an inspection object. Correlation of residual effect measured a week later and induced effect was 0.647. A week after the 45-sec. inspection period a 10-min. inspection period was added, and a measure of residual aftereffect was taken a month later. Correlation between total induced aftereffect and the residual a month later was 0.720. The absolute size of aftereffect induced was found to be related to the pre-inspection judgment of the standard stimulus. Results are discussed in terms of similarities between learning and aftereffects.—*W. H. Guertin.*

7467. Eysenck, H. J. (U. London, England) Figural aftereffects, personality, and inter-sensory comparisons. *Percept. mot. Skills*, 1962, 15(2), 405-406.—It is argued that the measurement of figural aftereffects involves 2 antagonistic processes, and that failures to obtain correlations between visual aftereffects and kinesthetic aftereffects, as well as failure to obtain correlations of either with personality, may be due to disregard of the importance of controlling length of inspection periods properly.—*W. H. Guertin.*

VISION

7468. Dixon, N. F. (University Coll., London, England) **Apparatus: The recording of continuous variation along four dimensions.** *Quart. J. exp. Psychol.*, 1963, 15(1), 67-70.—A system is described for signalling, recording, and analysing continuous changes in up to 4 dimensions applicable to the visual after-image and other phenomena. Some advantages of the method are discussed.—*Journal abstract.*

7469. Kanizsa, G., & Metelli, F. **Recherches expérimentales sur la perception visuelle d'attraction.** [Experimental studies of perceived attraction.] *J. Psychol. norm. pathol.*, 1961, 4, 385-420.—These studies stem from Michotte's work on the perception of causality. In a series of experiments the authors examine the stimulus conditions for the perception of attraction of one visual object by another. They conclude that Michotte's formulation covers most, but not all the conditions investigated.—*M. L. Simmel.*

7470. Spigel, I. M. (U. Pittsburgh School Medicine) **CFF and surrounds of simultaneous contrast.** *Percept. mot. Skills*, 1962, 15(2), 275-281.—An experiment was designed to examine the effects of apparent surround luminance on CFF with objective illumination controlled. Surrounds producing differential simultaneous contrast were employed for the manipulation of apparent luminosity. It was found that the CFF did not vary with apparent brightness of the immediate gray surround, but was significantly higher when the inner area was bounded by components of higher luminosity, even when the total target luminosity was equal. Theoretical implications were noted.—*W. H. Guretin.*

7471. Weston, H. C. **Sight, light and work.** London, England: H. K. Lewis, 1962. xi, 283 p. £3 5s.—This revision of *Sight, Light and Efficiency*, originally published in 1949, considers problems associated with vision in industrial situations from a practical point of view. Anatomy and physiology of the eye, the nature, and causes of visual strain are reviewed. The specific demands of various kinds of visual tasks are considered in detail. Chapters are devoted to techniques for facilitating visual tasks, the lighting of working spaces or areas, and color. Various methods of testing visual ability and performance are treated in detail. The final chapter deals with various aspects of sight protection. An appendix summarizes British statutory requirements for lighting in various industrial situations.—*J. L. Brown.*

Space Perception

7472. Barlow, H. B. (Physiological Lab., Cambridge, England) **Slippage of contact lenses and other artefacts in relation to fading and regeneration of supposedly stable retinal images.** *Quart. J. exp. Psychol.*, 1963, 15(1), 36-51.—After-image experiments reveal that scleral-fitting contact lenses slip through several min. of arc. Experiments in which they have been used to procure "stabilized" retinal images must therefore be reinterpreted. Light-weight, suck-on, limbal-seating cups are much better, but complete stabilization cannot be relied upon. Other possible artefacts in stabilized image work are described and are thought to be responsible for certain features of previous accounts of the ap-

pearance of stabilized images. Discounting features caused by artefacts, the image appears to blur losing detail and fade losing contrast within the 1st few sec. Contrast and detail are not regained, but the milky, textureless image that remains fluctuates in appearance for a minute or so. Finally the fluctuations die out and a very blurred, cloudy version of the original scene persists. (23 ref.)—*Journal abstract.*

7473. Cornwell, Henry G. (Lincoln U.) **Prior experience as a determinant of figure-ground organization.** *J. exp. Psychol.*, 1963, 65(2), 156-162.—The failure to reproduce Rubin's aftereffect reported by Rock and Kremen (1957) was hypothesized as due to the absence from their training figures of the same black-white context that existed in their ambiguous test figures. This context was provided in the present experiment by training Ss in figure perception with reversible but unbalanced black-white designs, and subsequently testing them with identical contours in balanced designs. Comparison (chi square) of experimental and control Ss' responses to test designs revealed a significant effect ($p < .02$): Ss perceived the same figure-ground organization in the ambiguous test designs that they had perceived in the training designs.—*Journal abstract.*

7474. Epstein, William, & Park, John N. (U. Kansas) **Shape constancy: Functional relationships and theoretical formulations.** *Psychol. Bull.*, 1963, 60(3), 265-288.—In the 1st section empirical findings concerning shape constancy are reviewed under 10 headings: The Occurrence of Compromise, Conditions of Observation, Degree of Orientation, Observation Attitude, Familiarity and Representativeness, Differences Between Forms, Individual Differences and Individual Consistency, The Effects of the Background, Movement, Exposure Time and Intensity. The 2nd section deals with several theoretical accounts of shape constancy. The shape-slant invariance hypothesis is evaluated in the light of the experimental evidence and is judged to be equivocal. A line of investigation is proposed which might reconcile the experimental data with the requirements of this hypothesis. The final section of the paper considers the methodological precautions which need to be observed in experimentation on apparent shape and apparent slant. (54 ref.)—*Journal abstract.*

7475. Field, L. G. Hanscom. **Form perception in video viewing: Effects of resolution degradation and stereo on form thresholds.** *USAF ESD tech. docum. Rep.*, 1962, No. 63-136.—Thresholds for video viewing of randomly constructed forms are determined under conditions of pictorial degradation and stereoscopic presentation. Form recognition is not significantly enhanced by stereo viewing but discrimination threshold is reduced. All form thresholds are highly sensitive to video image degradation. Video acuity is not significantly related to video form thresholds and can be affected by orientation of a pattern in relation to video scan lines. (19 ref.)—*USAF ESD.*

7476. Gibbins, K., & Howarth, C. I. (Dept. Psychology, Hull, England) **A reply to John W. Senders and Virginia L. Senders.** *Quart. J. exp. Psychol.*, 1963, 15(1), 65-66.—(See 37: 4189).

7477. Gogel, Walter C. (FAA Civil Aeromedical Research Inst., Oklahoma City) **The visual percep-**

tion of size and distance. *FAA Civ. Aeromed. Res. Inst. Rep.*, 1962, No. 62-15. 19 p.—“The perception of absolute distance has been assumed to be important in the perception of the size of objects and the depth between them. A different hypothesis is proposed. It is asserted that perceived relative size and distance are the primary psychological phenomena, with perceived absolute distance derived from the perceptual summing of perceived relative depths. In agreement with this point-of-view, it is stressed that relative, rather than absolute retinal extents, are the determiners of visually perceived extents. A principle called the ‘adjacency principle’ is identified as perceptually organizing the relative retinal stimuli. This principle states that the apparent size or position of any object in the field-of-view is determined by whatever size or distance cues occur between it and adjacent objects. Some evidence for the adjacency principle is discussed and some consequences of the principle are considered.”—*W. E. Collins.*

7478. Holt-Hansen, Kristian. Oscillation experienced in the perception of figures. *Kong. Danske Vidensk. Selsk., Hist.-fil. Medd.*, 1962, 39(7), 48 p.—“A qualitative and quantitative description of oscillations in the perception of figures experienced in a series of experiments, the figures being sometimes projected onto a screen, sometimes illuminated by stroboscopic light in a dark optical box. . . . Experiments with polarized light suggested that the experienced oscillations are partly a result of central processes.”—*C. T. Morgan.*

7479. Schmidtke, H. (Max-Planck-Inst., Dortmund, Germany) Über Mikropsieerscheinungen in der Gesichtswahrnehmung. [Experiments on “micropsy” phenomena in visual perception.] *Psychol. Beih.*, 1962, 7(2), 285-295.—It is demonstrated that widening the convergence angle of the visual axis in constant accommodation leads to “micropsy” phenomena in visual perception. The convergence conditioned “micropsy” was measured by comparing the size of presented visual objects (black circles and photographs of coins) necessary for the recognition of the equivalent size and the calculated convergence distance. Results are discussed on the basis of a theory of size constancy of visual objects. (English & French summaries)—*H. J. Priester.*

7480. Walsh, E. G. (U. Edinburgh, Scotland) The perception of rhythmically repeated linear motion in the horizontal plane. *Brit. J. Psychol.*, 1962, 53(4), 439-445.—Normal Ss were subjected to linear motion rhythmically repeated at rates in the range 1 to 1/2 cps. With horizontal oscillations of 1/2 cps, the sensations of moving came at the turning-points of the swing. The person felt he was moving most rapidly when he was momentarily stationary. The CNS interprets acceleration as velocity under these circumstances. At times the first sensation of moving in one direction came whilst the person was travelling rapidly in the opposite way. At 1 cps the sensations were in time with the movements as they occurred. Threshold data indicate that the peak acceleration adequately describes the stimulus at 1/2 and 1/3 cps. The findings are discussed in relation to the behavior of the otolith organs and may have a bearing on possible explanations of motion sickness.—*Journal abstract.*

Color Vision

7481. Bardin, K. V. (RSFSR Acad. Pedagogical Sciences) Kharakteristike priemov resheniia sensornykh zadach na razlichenie i vosproizvodenie tsveta. [Different approaches in solving problems of color discrimination and reproduction.] *Dokl. Akad. Pedag. Nauk RSFSR*, 1962, No. 3, 99-102.—Ss were instructed to reproduce and to discriminate given colors by manipulating a color wheel. The searching movements were recorded on a kymograph. Analysis of movements shows certain patterns corresponding to different functions such as orientation, control, and performance of the tasks.—*A. Cuk.*

7482. Crovitz, Herbert F., & Lipscomb, D. Barry. (VA Hosp., Durham, N. C.) Binasal hemianopia as an early stage in binocular color rivalry. *Science*, 1963, 139(Whole No. 3555), 596-597.—50 years ago Köllner reported that the initial fleeting sensation in binocular color rivalry is a bipartite color field such that the color presented to the left eye appears to the left of the color presented to the right eye. A method is described for maintaining such quasi hemianopia for long periods of time.—*Journal abstract.*

7483. Lobanova, N. V., & Rautian, G. N. O predelenie spektral'noi chuvstvitel'nosti priemnikov setchatki is opytov s dikhromatami. [On the determination of spectral sensitivity of receptors of the retina from experiments with dichromates.] *Dokl. Akad. Nauk SSSR*, 1962, 146(5), 1193-1196.—Using the assumption that the cause of dichromatism is a lack of functioning of a particular type of receptor, the investigators determined the spectral sensitivity of the missing receptor. The method essentially consisted of the determination of colors not differentiated by dichromates from a given color. All these colors are differentiated among themselves only by the magnitude of activity of this nonfunctioning receptor. 16 protanopes and 16 deutanopes served as Ss. On this basis, sensitivity curves were elaborated for 3 color receptors of the retina.—*H. Pick.*

7484. Shurtleff, D., & Dimascio, A. (Massachusetts Mental Health Cent., Boston) Stimulus generalization and stimulus discriminability: Effects of perphenazine. *Percept. mot. Skills*, 1962, 15(2), 439-442.—17 college students were asked to distinguish between visual stimuli, varying in wavelength, by depressing one key when they saw the standard stimulus and a 2nd key when any other stimulus was presented. The shapes of the gradients for the frequency of correct responses, in most cases, were consistent with predictions derived from the assumption of an inverse relationship between generalization and discrimination. Although no statistically significant differences between placebo and perphenazine were obtained, perphenazine tended to produce more asymmetrical gradients.—*W. H. Guertin.*

7485. Wienke, Richard E., & Schwartz, Ira. Effect of contact lenses on the red/green ratio. *USN Med. Res. Lab. Rep.*, 1960, 19(3, Whole No. 328), 2 p.—(Originally published in *Contacto*, 1959, 3(11), 379, 381.) It had been suggested that the retinal image size, due to ophthalmic correction, had an effect on color discrimination. This hypothesis was tested by using contact lenses, which tend to

equate image size regardless of ametropia. It was found that correctly fitted and powered contact lenses and spectacle corrections have no differential effect on the color discrimination task.—*USN MRL*.

Visual Sensitivity

7486. Amigo, George. (U. New South Wales, Sydney, Australia) Variation of stereoscopic acuity with observation distance. *J. Opt. Soc. Amer.*, 1963, 53(5), 630-635.—The stereoscopic acuity of 5 Ss was investigated in 2 consecutive and related studies. In the 1st one a modified horopter apparatus was used and the stereoscopic acuity was determined, at a mean retinal locus of 4° to the left of the fovea, at the 333- and 1000-mm. observation distances. 2 types of fixations were used, and the exposure time was kept above 1 sec. The results indicated a significant variation of the stereoscopic acuity with observation distance. In the 2nd investigation a haploscopic apparatus was used to study the stereoscopic acuity at a mean retinal locus of 4° and $\frac{1}{2}^\circ$ to the left of the fovea, at 500, 750, 1000, 1500, and 2000 mm. for the 4° and at 500, 750, and 1000 mm. for the $\frac{1}{2}^\circ$ locations. The duration of the stimulus was accurately controlled by a mirror-shutter. The exposure times used were 0.05, 0.10, 1.00, and 2.00 sec. Fixation was central, and all known physical variables were kept constant. The results again indicated a significant variation of the stereoscopic acuity with the observation distance. The possible implications of this finding are discussed.—*Journal abstract*.

7487. Kinney, Jo Ann S. (USN Medical Research Lab., Groton, Conn.) Night vision sensitivity during prolonged restriction from sunlight. *J. appl. Psychol.*, 1963, 47(1), 65-67.—The night vision sensitivity of a group of 24 men was tested monthly during the 3-month submerged cruise of the Triton. There was no evidence in the test scores that night vision sensitivity can be improved beyond its seasonal peak by further restriction from sunlight.—*Journal abstract*.

7488. Over, Ray. (Queen's U., Belfast, Ireland) Brightness judgments and stimulus size and distance. *Brit. J. Psychol.*, 1962, 53(4), 431-438.—3 groups of Ss were instructed to judge the relative brightness of 2 stimuli, the sizes and distances of which were varied to allow 3 visual angle relationships. Testing was carried out under reduced viewing conditions and the groups differed in terms of the criteria Ss were instructed to use in making brightness judgments. For all groups it was found that when the 2 stimuli were equal in luminous intensity the stimulus subtending the smaller visual angle was consistently judged to be less bright than the stimulus subtending the larger visual angle. Judgments made with "projective" criteria were more a function of stimulus size and distance than were judgments made with either "objective" or "apparent" criteria.—*Journal abstract*.

7489. Thorsby, Adrienne. (U. Sidney, Australia) Proportion of light to cycle as a determinant of critical flicker-fusion frequency. *Psychol. Bull.*, 1962, 59(6), 510-519.—On the basis of recent studies a meaningful relationship between CFF and the proportion of light to the total cycle (P_L) is emerging. Graphs of the Log of time of one dark period to time of one light period "show that increase in time of

light, luminance and/or area of test patch, results in a decrease in the time of dark necessary at fusion."—*W. J. Meyer*.

Eye Movements

CHEMICAL SENSES

7490. McBurney, Donald H., & Pfaffmann, Carl. (Brown U.) Gustatory adaptation to saliva and sodium chloride. *J. exp. Psychol.*, 1963, 65(6), 523-529.—Human NaCl thresholds were measured under 2 conditions: (a) salivary influence excluded by rinse with distilled water or 1 of 3 weak concentrations of NaCl between stimulations, and (b) salivary influence maximized by using no rinse. Adaptation to distilled water yielded a median threshold for 4 Ss of .00014 M vs. .0043 M for adaptation to saliva. The latter value approximated the resting concentration of sodium in the saliva of these Ss. Adaptation to saline solutions raised the thresholds to values slightly above each of the adapting concentrations. It is concluded that salt thresholds normally reflect the state of adaptation to salivary sodium. Changes in general physiological state of the organism which affect salivary composition might be expected to shift the taste threshold by a process of sensory adaptation. (24 ref.)—*Journal abstract*.

7491. Michels, K. M., Phillips, D. S., Wright, R. H., & Pustek, J., Jr. (Purdue U.) Odor and olfaction: A bibliography, 1948-1960. *Percept. mot. Skills*, 1962, 15(2), 475-529.—A "reasonably complete" bibliography of 601 items.—*W. H. Guertin*.

SOMESTHESIS

7492. Bergstedt, Martin. (Karolinska Inst., Stockholm, Sweden) The effect of gravitational force on the vestibular caloric test. *Acta oto-laryngol., Stockholm*, 1961, 53(6), 551-562.—Vestibular caloric tests were carried out on 4 Ss at 1 g, 1.25 g, 1.5 g, and 1.8 g in a large centrifuge. The experiments showed that: (a) vestibular caloric tests are influenced by the strength of the gravitational field, (b) the maximum intensity of nystagmus increases with higher values of g, (c) this increase is in direct proportion to the increase in the gravitational field strength, (d) the latency period decreases with higher values of g, (e) the results are the same with cold and hot water irrigation. It is also shown that the duration increases with higher g-values but the material relating to this factor is not complete. An extrapolation of the result towards values of g less than 1 tend to show that there is no nystagmus in conditions of weightlessness and that the liminal value for nystagmus is about 0.1 g. An investigation involving the caloric test and preponderance at higher g-loads is planned.—*Journal abstract*.

7493. Brandt, Ulf. (Karolinska Inst., Stockholm, Sweden) The cause and practical importance of oculogravic illusions. *Acta Oto-laryngol., Stockholm*, 1962, 54, 127-135.—The oculogravic illusion can be interpreted as a specific otolith response to a stimulus consisting of linear acceleration. It has been suggested as a conclusive proof that the phenomenon does not occur in deaf Ss with labyrinthine areflexia. 2 fresh cases of acquired labyrinthine areflexia have been examined in the human centrifuge, the illusion being measured by a special technique. Although abnormal illusion curves much unlike those recorded in

the congenitally deaf may be obtained at the end of the "destructive stage," complete compensation with illusion curves resembling those of healthy individuals developed in a comparatively short time. The logical conclusion would be that oculogravic illusion cannot be accepted straight off as a selective measure for otolith sensitivity. In connection with a discussion of analogies, comparing oculogravic and oculogyral illusion, the author suggests that the "lag effect" (i.e., the time necessary for reorientation on rapid changes of the angle of incidence of the resultant vector) may offer a more adequate expression for static sensibility. The recent advances in the methods of observing these labyrinthine illusions should add to our somewhat unverified knowledge of vestibular physiology and pathology.—*Journal abstract.*

7494. Chumak, A. IA. (Moscow U., USSR) *Analiz sistemnogo stroeniia vospriiatiia: Soobshchenie X. Opyt formirovaniia razichitel'noi vibratsionnoi chuvstvitel'nosti.* [Analysis of the systemic structure of perception: Communication X. Formation of discriminatory sensitivity to vibration.] *Dokl. Akad. Pedag. Nauk RSFSR*, 1962, No. 3, 83-86.—4 Ss were trained to discriminate vibrations of same and different intensities and frequencies. In a 2nd step, they had to vocalize the same intensities and frequencies. The result was a decrease in all thresholds.—*A. Cuk.*

7495. Clark, Brant, & Graybiel, Ashton. (San Jose State Coll.) *Perception of the postural vertical in normals and subjects with labyrinthine defects.* *J. exp. Psychol.*, 1963, 65(5), 490-494.—9 normal men and 10 men with vestibular defects were studied in a lateral tilt chair for 30 successive settings to the postural vertical. A significant decrease in the average error was found for both groups. The normal Ss exhibited smaller average errors; however, the differences were small particularly after 15 trials and were not statistically significant. (16 ref.)—*Journal abstract.*

7496. Collins, William E. (FAA Civil Aeromedical Research Institute, Oklahoma City) *Manipulation of arousal and its effects on human vestibular nystagmus induced by caloric irrigation and angular accelerations.* *FAA Civil Aeromed. Res. Inst. Rep.*, 1962, No. 62-17. 12 p.—Investigations concerned with the effects of subjective states on vestibular nystagmus were reviewed. Methods of controlling such states were discussed. Data indicate that the significant factor in S orientation during vestibular stimulation is a state of arousal, defined in terms of mental activity. Continuous, concerted attending to a task yields a brisk, long-duration nystagmus. If responses to a task require less attention with repetition, or if Ss are not kept alert, a significant reduction in nystagmus output may occur. Knowledge of subjective states is a prerequisite for proper evaluation of vestibular responses.—*W. E. Collins.*

7497. Fluor, Erik. (Karolinska Inst., Stockholm, Sweden) *The mechanism of nystagmus.* *Acta Oto laryngol., Stockholm*, 1962, 54(2), 181-188.—In 6 persons with spontaneous vertical nystagmus behind closed eyes, concurrent horizontal nystagmus was induced by caloric irrigation of the horizontal semicircular canals in the vertical position. This procedure caused no change in the vertical nystagmus

pattern. When the horizontal nystagmus subsided, the number of eye movements decreased, whereas the vertical nystagmus continued unchanged. The rapid phases of horizontal and vertical nystagmus invariably coincided even if the 2 types otherwise differed in frequency. The mechanism eliciting nystagmus is discussed, the following conclusions being drawn: (a) the slow phase of horizontal and vertical nystagmus is controlled from separate independent centers, (b) the rate of the slow phase is influenced by both peripheral and central factors, (c) the rapid phase is elicited from a center common to horizontal and vertical nystagmus, (d) the mechanism of nystagmus is controlled from the extraocular muscle nuclei but may be affected by various centers.—*Journal abstract.*

7498. Fluor, E. (Karolinska Inst., Stockholm, Sweden) *Efferent influence on vestibular function following unilateral labyrinthectomy.* *Acta otolaryngol., Stockholm*, 1961, 53(6), 571-577.—Central compensation following unilateral labyrinthectomy has been studied and discussed in an earlier paper (Fluor, 1960). By depressing the activity in the intact labyrinth by means of cold water irrigation, it was possible to demonstrate a gradual return of the normal function via compensatory activation of the vestibular nuclei on the labyrinthectomized side. Barany (1906, 1907) conducted rotary tests on patients bereft of one labyrinth due to acute labyrinthitis. He found far greater sensitivity to ampullopetal than to ampullofugal endolymph currents, and sought to explain the phenomenon on the basis of Ewald's (1892) view that the horizontal semicircular ducts had a unidirectional sensitivity which could come into play only after loss of one labyrinth. Cawthorne, Fitzgerald, & Hallpike (1942) reported caloric tests of patients who had undergone unilateral labyrinthectomy; they too, demonstrated increased sensitivity to ampullopetal endolymph currents. They termed this phenomenon "directional preponderance" and attributed it to conversion of the normal bi-directional sensitivity "into an abnormal uni-directional type." Since different authors have placed different interpretations on their results, it has been considered worth while to investigate the possible effects.—*Journal abstract.*

7499. Graybiel, Ashton, & Johnson, Walter H. *A comparison of the symptomatology experienced by healthy persons and subjects with loss of labyrinthine function when exposed to unusual patterns of centripetal force in a counter-rotating room.* *USN Sch. Aviat. Med. NASA jt. res. Rep.*, 1962, Proj. MR005.13-6001, Subtask 1, Rep. No. 70; NASA Order R-47. ii, 15 p.—Normal Ss and deaf persons with bilateral labyrinthine defects were exposed to unusual patterns of linear acceleration in an attempt to disturb normal functional mechanisms in the brain stem. Through the use of a counter-rotating room it was possible, at the same time, to avoid angular or Coriolis acceleration. Some of the normal but none of the labyrinthine defective Ss experienced motion sickness. The results are discussed in terms of the etiologic role of the vestibular sensory organs.—*USN SAM & NASA.*

7500. Harris, Charles S., Guedry, Frederick E., & Graybiel, Ashton. *Positional alcohol nystagmus in relation to labyrinthine function.* *USN Sch. Aviat. Med. NASA jt. res. Rep.*, 1962, Proj. MR005.

13-6001 Subtask 1 Rep. No. 76; NASA Order R-47. ii, 19 p.—The main objective was to evaluate the use of positional alcohol nystagmus (PAN) as an indicator of otolith function. Individuals without functional labyrinths did not exhibit nystagmus comparable in quality or magnitude to results obtained from a group of normal Ss. Several individuals suspected of having residual otolith function exhibited weak responses reminiscent of PAN, but the "responses" may have been attributable to artifacts. A relationship was found in normal Ss between nystagmus obtained by caloric stimulation and nystagmus obtained by positional alcohol testing. The relationship between nystagmic output and arousal was found to be essentially the same for positional alcohol nystagmus as for nystagmus obtained by other procedures. All labyrinthine-defective Ss tested for alcohol gaze nystagmus exhibited alcohol gaze nystagmus. (21 ref.)—*USN SAM & NASA*.

7501. Lindvall, H. F. (Serafimerlasarettet, Stockholm, Sweden) **Vertigo and nystagmus responses to caloric stimuli repeated at short and long intervals.** *Acta oto-laryngol., Stockholm*, 1961, 53(6), 507-518.—Experiments on 50 young, and, from an otoneurological point of view, "normal," Ss, showed a decline of the average vertigo and nystagmus responses to repeated monaural caloric stimulations with water at 30° C. This response decline (RD) occurred both at short (8 min.) and long (24 hr. or more) interstimuli intervals, which indicates that a central mechanism was responsible for this phenomenon. Statistical analysis disclosed some traits in the response pattern characteristic of habituation. Of practical interest is the observation that, even when an interval of 2 weeks elapsed between the 1st and 2nd irrigations the nystagmus response to the 2nd irrigation was significantly weaker. This RD was more marked in latency, total number of beats and dysrhythmia than in the duration of the nystagmus response.—*Journal abstract*.

7502. Miller, Earl F. **Counterrolling of the human eyes produced by head tilt with respect to gravity.** *USN Sch. Aviat. Med. res. Rep.*, 1962, Proj. MR005.13-6001, Subtask 1, Rep. No. 75. ii, 32 p.—A photographic method of measuring counterrolling yielded, on the average, a precision of ± 5.3 minutes of arc. With this method torsional eye movements compensatory to head (body) tilt were found in all planes tested except the sagittal. In 2 intermediate planes the overall counterrolling response was quite similar but somewhat less than that found in the case of lateral tilt. Counterrolling always occurred opposite to the lateral component of head tilt and increased fairly rapidly up to a maximum at a head inclination of between 60° and 90°. From this point on counterrolling decreased but at a lesser rate than it increased, reaching about zero when the head was positioned vertically downward. A difference in absolute amount of torsion of the right eye found between tilting the head (body) leftward and rightward could not be established. However, no difference in counterrolling could be attributed to the order in which the measurements were made. Variability in counterrolling response was found to be considerable at every position of tilt. A theory attempting to explain the mechanism of otolith organ stimulation is presented. (34 ref.)—*USN SAM*.

7503. Sternbach, Richard A. (Massachusetts General Hosp., Boston) **Congenital insensitivity to pain: A critique.** *Psychol. Bull.*, 1963, 60(3), 252-264.—No available reported case of apparent congenital pain insensitivity meets strict requirements for the syndrome. 17 "probable" cases are so neurologically and behaviorally heterogeneous that there appear to be several kinds of insensitivities with variations in the nature and/or locus of their neural deficits. The possible kinds of such deficits are discussed. The ability of these persons to survive is seriously impaired and depends on their ability to use other sensory cues of tissue damage. Normal personality development is rarely affected by the absence of pain. (64 ref.)—*Journal abstract*.

HEARING

7504. Coleman, Paul D. (School Medicine, Johns Hopkins U.) **An analysis of cues to auditory depth perception in free space.** *Psychol. Bull.*, 1963, 60(3), 302-315.—Physical acoustics reveals a number of stimulus correlates of sound source distance. Quantitative estimates of these stimulus correlates are compared with appropriate psychophysical thresholds. Such comparisons show that most of these stimulus correlates can, with various restrictions, provide distance information detectable by the ear(s). The stimulus correlates dealt with at greatest length are: intensity, frequency spectrum at near and far distances, binaural intensity ratio, and interaural phase (or time) differences. Problems relating to the use of some of these stimulus correlates as cues are discussed. Other possible distance cues are briefly mentioned. The possible use of much of the available physical information in making distance judgments has not yet been adequately evaluated in psychophysical studies. (48 ref.)—*Journal abstract*.

7505. Djupesland, Gisle. (Namsos, Norway) **Intra-aural muscular reflexes elicited by air current stimulation of the external ear.** *Acta Oto-laryngol., Stockholm*, 1962, 54(2), 143-153.—A review is given of the intra-aural muscular reflexes elicited by air current stimulation of the external human ear. Air current stimulation is advantageous compared with acoustic stimulation, being independent of the hearing in the contralateral ear, provided the reflex path is intact. The diagnostic scope of impedance measurements is thus substantially increased.—*M. Loeb*.

7506. Haeff, Andrew V., & Knox, Cameron. (Acoustica Associates, 5331 West 104th St., Los Angeles, Calif.) **Perception of ultrasound.** *Science*, 1963, 139(Whole No. 3555), 590-592.—Ultrasonic vibrations can be perceived as audible sounds when a piezoelectric transducer is pressed against certain areas of the human body. In the range of frequencies investigated (20 to 108 kc/sec), the threshold of perception seemed to lie near the threshold of feeling (about 10^{-4} watt/cm²), and the perceived audible sound appeared to be between 8 and 9 kc/sec as judged by 6 test Ss. The threshold of perception and the perceived frequency appear to be dependent upon the hearing characteristics of the individual.—*Journal abstract*.

7507. Harris, J. Donald. (USN Medical Research Lab., New London, Conn.) **Loudness discrimination.** *J. speech hear. Disord. monogr. Suppl.*

1963, No. 11, 61.—The monograph consists of a series of experiments and reviews of the literature concerning loudness discrimination. Optional difference limens, just noticeable differences of Riesz' experiment, preliminary loudness matrix, the loudness discrimination area, the present status of loudness discrimination in oto-audiological clinics, loudness/masking at 1000 cps, parameters of the loudness/masking JND, loudness/masking for complex sounds, loudness-memory for masked pure tones, a large group study showing a wide range of individual ability, general discussion of the discrepancies in the literature and in these findings.—*M. F. Palmer.*

7508. Heller, Morris F. (Mount Sinai Hosp., NYC) **Vibratory tinnitus and palatal myoclonus.** *Acta oto-laryngol., Stockholm*, 1962, 55(4), 292-298.—2 female patients with vibratory tinnitus and spontaneous palatal myoclonus are reported. 1 male patient with vibratory tinnitus and voluntary palatal myoclonic movements is described. The tinnitus was heard only when the palatal muscles and salpingopharyngeus muscles contracted and the tubal orifices are closed. The tinnitus can be heard both by the patient and by other persons. No common etiology could be determined. No specific treatment has been delineated.—*Journal abstract.*

7509. Kinsler, Lawrence E., & Frey, Austin R. (USN Postgraduate School, Monterey, Calif.) **Fundamentals of acoustics.** (2nd ed.) New York: Wiley, 1962. vii, 524 p.—A textbook designed for seniors and graduate level courses. Equations and laws of acoustics are developed from the fundamental principles underlying the generation, transmission, and reception of acoustic waves. About 1/2 of the book is devoted to these fundamental principles while the remainder contains applications, including a 39-page chapter entitled "Speech, Hearing and Noise."—*A. M. Small, Jr.*

7510. Norlund, Bertil. (U. Goteborg, Sweden) **Physical factors in angular localization.** *Acta Oto-laryngol., Stockholm*, 1962, 54(1), 75-93.—The investigation was carried out for the purpose of clarifying the acoustic differences which arise between the ears at different azimuths. Measurements of time, phase and intensity differences of the sound entering the ears of a dummy head were performed with the sound source placed at different azimuths around the head, and using the frequencies 500, 1000, 2000, 4000, and 8000 cps, with the sound source 165 cm. from the head. The results indicate that the time difference constitutes a linear function of azimuth between the angles of 0°-60° and between 120°-180°. The same thing applies to the phase difference, if expressed in time. The difference in intensity appears to be a very irregular function of azimuth and has to a great extent failed to agree with previously published findings. The matter of directional hearing is discussed on the basis of physical measurements and data obtained.—*Journal abstract.*

7511. Rankin, Richard J. (Oklahoma State U.) **Auditory discrimination and anxiety.** *Psychol. Rep.*, 1962, 11(2), 391-394.—"Ss (N = 117) were administered the Taylor Manifest Anxiety Scale and these scores were correlated with those for six variables found in the Seashore Measures of Musical Talents. Significant relationships were found between the Taylor Manifest Anxiety Scale and meas-

ures of loudness, time, and timbre. These results parallel those found in the literature for simple tasks. The need for further work with an auditory measure less restricted in range is indicated."—*B. J. House.*

7512. Rodda, M. (U. Canterbury, Christchurch, New Zealand) **Recovery from temporary threshold shift.** *Acta oto-laryngol., Stockholm*, 1962, 55(5-6), 553-562.—This study reports work in which recovery from temporary threshold shift (TTS) was studied by measuring the time taken for the elevated threshold to recover to normality (i.e., the latent time). It was found that with stimulus frequencies of 1000 and 2000 cps latent time increases as the stimulus intensity is raised from 20 to 60 db., decreases as the stimulus intensity is increased from 80 to 90 db. With 4000 and 8000 cps stimulus frequencies it was found that there is a gradual, negatively accelerating increase in latent time with increasing stimulus intensities. Latent times were found to be maximum at 4000 cps and minimum at 1000 cps, and increases in latent time at 4000 and 8000 cps paralleled each other. It is suggested that the results offered indirect evidence that recovery from TTS is diphasic. The author suggests an explanation for the phenomenon based on facilitatory effects within the cochlea.—*Journal abstract.*

7513. Schubert, Earl D. (Indiana U.) **Interpretation of the Butler-Naunton localization shifts.** *J. Acoust. Soc. Amer.*, 1963, 35(1), 113.—It is suggested that shifts in localization of a sound in space under conditions of unilateral masking by a wide band noise are caused by a peripheral mechanism. By analogy to pitch matching experiments the position of the maximum of the basilar membrane displacement pattern is assumed to be moved basally in the masked ear with a consequent shift in source of timing information.—*A. M. Small, Jr.*

7514. Sørensen, H. (Aarhus, Denmark) **Initial auditory adaptation: II. In impaired hearing.** *Acta oto-laryngol., Stockholm*, 1962, 55(5-6), 443-456.—Initial auditory adaptation is the depression of the sensitivity of the ear which is observed immediately after low-intensity stimulation, and from which recovery is obtained within less than 1 second after the cessation of the stimulus.—*Journal abstract.*

Measurement

7515. Fletcher, J. L., & Loeb, M. (USA MRL, Ft. Knox) **The influence of different acoustical stimuli on the threshold of the contralateral ear: A possible index of attenuation by the intratympanic reflex.** *Acta Oto-laryngol., Stockholm*, 1962, 54(1), 33-37.—A previous attempt to assess the attenuation produced by the intratympanic muscle reflex involved determination of the increase in absolute threshold following contralateral pure tone stimulation. This estimate was considerably smaller than estimates of reflex attenuation obtained by other means. In the present study a 110-db. SL sine wave, square wave, narrow band noise, or broad band noise was introduced in one ear and the resultant threshold shift in the contralateral ear was measured. The smallest changes were produced by the square wave and pure tone stimuli. Appreciably larger threshold increases were elicited by the broad band and narrow band noises, especially the latter. Possible explana-

tions of the obtained differences are discussed.—*Journal abstract.*

7516. Maspétiol, R., Semette, D., & Mathieu, C. (Paris, France) **Le contrôle central de l'audition et ses tests audiométriques.** [Central control of audition and related audiometric tests.] *Acta Otolaryngol., Stockholm*, 1962, 54(1), 33-43.—This paper is concerned with the action of a weak contralateral sound on the auditory intensive difference limen. The study indicates the presence of inhibition and facilitation in central transmission of the auditory message and of a central control of the cochlea. The significance of the findings for certain clinical audiometric tests is examined. "From a neurosurgical point of view, these audiometric facts are the clinical expression of well-determined neuro-physiological processes, viz. the reticular control of central transmission of auditive messages and the interreaction of cortex and reticulated substance, the centrifugal reticulated effects acting on the receptor organ and the reticulo-hypothalamic effects."—*M. Loeb.*

7517. Nordlund, B. (Göteborg, Sweden) **Angular localization.** *Acta oto-laryngol., Stockholm*, 1962, 55(5-6), 405-424.—The investigation was carried out to develop a method for directional audiometry that will provide a test of the different functions in angular localization. The method has the following properties. (a) What we have called "physiological directional hearing," i.e., the ability to angular localization of a sound source in a free field, can be estimated. (b) Defective ability to discriminate interaural time, phase, and intensity differences can be detected individually. The sources of error of the method are carefully investigated with the aid of an artificial head. In future work this method for directional audiometry will be tested clinically in order to estimate the value angular localization may have for the topical diagnosis of hearing defects.—*Journal abstract.*

7518. Selters, Weldon. (Research Cent., Subcommittee on Noise, Los Angeles, Calif.) **Prediction of temporary threshold shift after noise increase.** *J. Acoust. Soc. Amer.*, 1963, 35(1), 99-103.—It has been reported previously that temporary threshold shift (TTS) can be predicted as a function of exposure time and level when the level is constant. The present results indicate: (a) After a noise-level increase, if exposure item is adjusted by the equivalent-exposure rule, the usual TTS function for the higher level will predict subsequent TTS growth. (b) Brief test periods introduce errors in exposure time, which may be corrected by multiplying the observed TTS by $(t_n + t_i)/t_n$ where t_n is exposure time and t_i is test time. (c) An acceleration in TTS seems to occur at about 6 min., thus new equations will be necessary to predict TTS for exposure times less than 6 min.—*A. M. Small, Jr.*

7519. Sørensen, Henning. (Aarhus, Denmark) **Initial auditory adaptation: I. In normal individuals.** *Acta oto-laryngol., Stockholm*, 1962, 55(4), 299-308.—The purpose of the present investigation was to elaborate an adaptation test for use in clinical routine and to establish normal values, so that the test could subsequently be applied in various forms of deafness. 74 normal Ss of all ages were tested. The initial adaptation was measured by the threshold rise of a short tone (30 msec.) applied 50 msec. after the

cessation of a pure-tone stimulus (1000 msec.). The frequencies of the stimulus tones were 250, 1000, and 4000 cps. The frequency of the test tone was at all frequencies $\frac{1}{2}$ octave above that of the stimulus tone. With this frequency interval the (threshold) shift was observed at stimulus intensities of 50-55 db. above the hearing threshold at all frequencies, with increasing age at lower intensities. The threshold rise at intensities 20 db. above incipient adaptation amounted to 12-14 db. at all ages.—*Journal abstract.*

Speech Perception

7520. Elliott, L. L. **Prediction of speech discrimination scores from other test information.** *USAF SAM tech. docum. Rep. 62-145*, 1962, No. 62-145, 13 p.—Performance on tests with Rush Hughes (RH) materials and with W-22 materials were correlated with speech discrimination scores. PB score in the nontest ear and difference between speech reception thresholds (SRT) in the test and nontest ears were the 2 best predictors. High validity coefficients occurred for the equation based on W-22 materials. Moderate validity coefficients occurred for the equation based on RH materials.—*M. C. Payne, Jr.*

PARAPSYCHOLOGY

7521. Banerjee, H. N. (Inst. Parapsychology, Ganganagar, India) **Semi-technique in ESP tests with non-familiar mother-child groups.** *Shiksha*, 1962, 15(2), 83-87.—20 Ss were given 200 runs of cards. Results claim that the Ss secured the knowledge of targets clairvoyantly. 75% of the Ss scored with positive deviation, 10% at chance level, and 15% scored below MCE. 35% of the Ss scored very significantly. Implications for parapsychological work are discussed.—*U. Pareek.*

7522. Girden, E. (Brooklyn Coll.) **A postscript to "A Review of Psychokinesis (PK)."** *Psychol. Bull.*, 1962, 59(6), 529-531.—Many of the criticisms leveled by Murphy (see 37: 7524) on an earlier paper by Girden (see 37: 6052) are considered. It is concluded that the existence of PK has not been proven.—*W. J. Meyer.*

7523. Gudas, Fabian. (Ed.) (Louisiana State U.) **Extrasensory perception.** New York: Scribner, 1961. xv, 141 p. \$1.95(paper).—An anthology of 25 papers reflecting the thought and/or research on extrasensory perception from the 17th to the 20th century. Selections include articles by Increase Mather, Francis Bacon, Michael Faraday, Mark Twain, William James, B. F. Skinner, J. B. Rhine, S. G. Soal, and Edwin G. Boring.—*J. B. Thompson.*

7524. Murphy, Gardner. (Menninger Found., Topeka, Kan.) **Report on paper by Edward Girden on psychokinesis.** *Psychol. Bull.*, 1962, 59(6), 520-528.—Failure to replicate, as Girden has suggested, does not mean a particular event was never there or is necessarily an artifact. This and several other issues raised by Girden (see 37: 6052) are considered unreasonable. Alternative arguments are offered.—*W. J. Meyer.*

7525. Prasad, Jamuna. (Bureau Psychology, Allahabad, India) **Need and scope for research in parapsychology.** *Shiksha*, 1963, 15(3), 130-132.—It has to be found out whether psychic experience is an extension of the psychological effort of need ful-

filament and tension reduction. The phenomena of rebirth and yogic experience in India need thorough research.—*U. Pareek.*

7526. Rhine, J. A. **Parapsychology.** *Shiksha*, 1962, 15(2), 69-82.—A short sketch of the field of parapsychological studies—extrasensory perception and psychokinetics. The psychology of psi is also discussed.—*U. Pareek.*

7527. Schmeidler, Gertrude R. (City Coll. New York) **Note on precognition with and without knowledge of results.** *Psychol. Rep.*, 1962, 11(2), 486.—50 students guessed at targets to be generated and scored later by a computer. 34 Ss, rescored because of programing and machine errors, failed to score significantly above chance; but 16 Ss scored only once were above chance.—*B. J. House.*

ENVIRONMENTAL EFFECTS

SLEEP & FATIGUE

MOTIVATION & EMOTION

7528. Lee, Joan C., & Griffith, Richard M. (Kentucky State Hosp., Danville) **Time error in the judgment of humor.** *Psychol. Rep.*, 1962, 11(2), 410.—Of cartoons presented in pairs to 29 Ss, the 2nd of each pair was more often judged funnier than the 1st. Results are related to Berlyne's theory of humor.—*B. J. House.*

7529. Meade, Robert D. (Trinity Coll.) **Effect of motivation and progress on the estimation of longer time intervals.** *J. exp. Psychol.*, 1963, 65(6), 564-567.—Earlier experiments on short time periods have shown time estimates to be inversely related to rate of progress through a task when there is motivation to reach a goal. This study tested the effects of these variables for 15-, 30-, 45-, and 60-min. periods. A factorial design with 2 rates of progress and 2 levels of motivation was used with 10 Ss under each of the 4 conditions. The experimental task was a stylus maze. The conclusion is that Ss' time estimates are inversely related to rate of progress under high motivation but unrelated under low motivation for all periods except 45 min. where the results fell just short of significance at the .05 level of confidence.—*Journal abstract.*

7530. Plutchik, Robert. (Hoifstra Coll.) **The emotions: Facts, theories and a new model.** New York: Random House, 1962. viii, 204 p. \$1.95.—After briefly discussing what is a theory of emotion and what are its general problems, the following theories are reviewed: James-Lange, attitude, Cannon-Bard, activation, motivational, psychoanalytic, and behavioristic. The author presents his theory which distinguishes primary emotions and their mixtures, analogous to primary colors in complementary pairs. The prototype patterns of behavior described are identifiable at many different phylogenetic levels. A multidimensional model and some relevant experimental studies are presented.—*R. S. Davidson.*

7531. Shantz, D. W., Rubin, B. M., & Smock, C. D. (Purdue U.) **Utilization of visual information as a function of incentive motivation.** *Percept. mot. Skills*, 1962, 15(2), 357-358.—Responses of 92 Ss to projection slides depicting 3 levels of figure complexity showed that incentive motivation produced greater accuracy for all complexities and more brief

discussion times. Interpretation in terms of cues and attention is mentioned.—*W. H. Guertin.*

7532. Zas, Yaakov. **Hatsehok mahu?** [What is laughter?] Tel Aviv, Israel: Yavneh, 1962. 136 p.—The nature and forms of laughter are described on the basis of the author's (a physician) observations and illustrated by quotations from some philosophers' writings. The main items discussed are: physiology of laughter, psychology of laughter, laughing and playing, tears of laughter, the basis of being ridiculous, comical things, and folk jokes.—*H. Ormian.*

PSYCHOMOTOR TASKS

7533. Ammons, C. H., & Ammons, R. B. (Montana State U.) **Motor skills bibliography: XXXI.** *Psychological Abstracts*, 1957, Volume 31, Second Half. *Percept. mot. Skills*, 1962, 15(2), 555-558.—A continuing, unannotated bibliography appearing irregularly in this journal.—*W. H. Guertin.*

7534. Arana, L., & Sokolov, E. N. (Moscow U. USSR) **Stockhicheskaia teoriia vospriiatiia: Soobshchenie VII. Osobennosti sokrashcheniia osiazatel'nogo vospriiatiia bukvennykh izobrazhenii.** [Stochastic theory of perception: Communication VII. Reduction of tactile perception of letter patterns.] *Dokl. Akad. Pedag. Nauk RSFSR*, 1962, No. 3 77-81.—5 Ss were required to identify by touch the patterns of alphabet letters presented in a 5 × 5 square using the minimum amount of cells. The schemes used by Ss were different from those employed when working under instructions of speed. The step-by-step verbal report by Ss slowed down the time but improved the quality of the search.—*A. Cuk.*

7535. Bertelson, Paul. (U. Libre Bruxelles) **S-R relationships and reaction times to new versus repeated signals in a serial task.** *J. exp. Psychol.*, 1963, 65(5), 478-484.—Previous experiments showed that, in a serial responding task, RTs to repeated signals are longer than RTs to new signals. The influence of S-R relationships on this phenomenon was examined. In Experiment I, 9 Ss gave 550 responses under each of 3 S-R conditions in a 2-choice task with a spatial display. RTs to both repeated and new signals were significantly (.01) affected by the conditions, but covariance analysis shows that the effect is significantly (.05) larger on RTs to new signals. These results are fully confirmed by Experiment II where 33 Ss, after prolonged practice on a 4-choice task with a numerical display, under a straightforward S-R pairing, did 4 short runs of 50 responses under the same pairing and then under a less compatible one.—*Journal abstract.*

7536. Borger, Robert. (Brunel Coll.) **The refractory period and serial choice-reactions.** *Quart. J. exp. Psychol.*, 1963, 15(1), 1-12.—An experiment is described in which Ss had to make consecutive 2-choice reactions to light and sound stimuli, the interval between signals being fixed for any one series of presentations. When under these conditions, reaction times to the 2nd signal are compared to those obtained when the 1st signal is used only as a warning, delays are found for short intervals. These results and the wide individual differences obtained are discussed in relation to theories that have been put forward to account for the delays obtained in serial reaction tasks.—*Journal abstract.*

7537. Clément, F. (Cent. Gérontologie Claude Bernard, Paris, France) **Modifications du temps de réaction simple en fonction de l'âge et de quelques autres facteurs.** [Modifications of simple reaction time as a function of age and some other factors.] *Rev. Psychol. appl.*, 1962, 12(3), 163-188.—750 Ss, ranging in age from 16 to 100 yr., pressed a lever in response to a light signal. Reaction time was found to: (a) be significantly slower as age increased, and more variable; (b) correlate +.25 with IQ; and (c) be slower for women than men. (49 ref.)—E. Y. Borrowman.

7538. Hellyer, Sidney. (Defense Research Medical Lab., Toronto, Canada) **Stimulus-response coding and amount of information as determinants of reaction time.** *J. exp. Psychol.*, 1963, 65(5), 521-522.—Earlier investigators have shown reaction time and stimulus information to be linearly related with a slope dependent upon amount of pre-experimental practice. 5 housewives were run on 3 tasks varying in pre-experimental practice; light-naming, reading names from slides, and number-naming. Amount of information was varied from 1 to 3 bits. The results confirmed the linear relationship with the slope a decreasing function of pre-experimental practice. However, even after 5040 trials on the task with the least such practice, light-naming, differences in reaction time corresponding to differences in information amount had decreased but little, indicating that the information effect is stable, at least for relatively unusual tasks.—*Journal abstract.*

7539. Krinchik, E. P. (Moscow U., USSR) **Izuchenie protsessy pererabotki informatsii chelovekom v situatsii vybora: Soobshchenie III. Zavisimost' vremeni reaktsii vybora ot velichiny spetsificheskoi i srednei informatsii.** [Information processing by man in a choice situation: Communication III. Choice reaction time as a function of the amount of specific and average information.] *Dokl. Akad. Pedag. Nauk RSFSR*, 1962, No. 3, 71-76.—Statistical analysis of data obtained previously leads to the following conclusion: the smaller the probability of the signal the greater is the deviation of the obtained RT from the expected one. An attempt is made to explain this effect psychologically in terms of the perceptual structure.—A. Cuk.

7540. Nance, R. D. (U. Wisconsin) **Transfer using unpaced and paced pursuit rotor practice.** *Psychol. Rec.*, 1962, 12, 345-349.—"Fifty-four Ss, 11 men and 43 women, were given 30 distributed trials on the pursuit rotor. All Ss were given both paced and unpaced trials, half having paced work first, the other half having unpaced work first. The problem was the determination of the possible transfer effect from one kind of work to the other. The investigator concluded that both positive and negative transfer probably occurred."—R. J. Seidel.

7541. Smith, L. E. (U. California) **Influence of neuromotor program alteration on the speed of a standard arm movement.** *Percept. mot. Skills*, 1962, 15(2), 327-330.—The maximal speed of a lateral adductive arm movement was measured in 60 male college students under varying conditions. Results support the doctrine of extreme specificity of individual differences in movement ability. They also support the current movement theory that ascribes

individual differences in maximal speed to differences in the CNS or neural program that controls the detailed muscular actions.—W. H. Guertin.

7542. Thomas, Aley, & Solley, Charles M. (Wayne State U.) **Search-discrimination time for missing stimulus information.** *J. exp. Psychol.*, 1963, 65(5), 501-506.—2 experiments in search discrimination were conducted. In both, 6th grade children had to search for a missing stimulus target which would complete the set. Targets were defined by either single classifications—color, form, or size; double classifications—color-form, color-size, or form-size; and triple classifications—color-form-size characteristics. The number of stimuli in the search field was either 8, 17, 35, or 53. It was found that search-discrimination time increased linearly with the number of stimuli; that single- and triple-classified stimuli were easier than double-classified ones; and that practice facilitated search discrimination, particularly for double-classified stimuli.—*Journal abstract.*

ATTENTION & SET

7543. Allen, Charles K., Hill, Frances A., & Wickens, Delos D. (Ohio State U.) **The orienting reflex as a function of the interstimulus interval of compound stimuli.** *J. exp. Psychol.*, 1963, 65(3), 309-316.—The experiment investigated the orienting response as a function of temporal relations among the stimuli, with GSR the measure. 3 stimuli were employed. The duration of the 1st was 1300, 1050, or 750 msec., with 2 groups at each interval. The duration of the 2nd and 3rd were 600 and 100 msec., respectively. They terminated together and consisted of a tone and 2 different lights. Following 10 presentations of the compound, separate groups were tested to the 1st or 2nd stimulus alone. The shift from triple stimulation to single produced a significant increase in GSR magnitude and also a significant interaction between order and original precedence time.—*Journal abstract.*

7544. Deutsch, J. A., & Deutsch, D. (Stanford U.) **Attention: Some theoretical considerations.** *Psychol. Rev.*, 1963, 70(1), 51-61.—The selection of wanted and unwanted messages requires discriminatory mechanisms of as great a complexity as those in normal perception, as is indicated by behavioral evidence. The results of neurophysiology experiments on selective attention are compatible with this supposition. This presents a difficulty for Filter theory. Another mechanism is proposed, which assumes the existence of a shifting reference standard, which takes up the level of the most important arriving signal. The way such importance is determined in the system is further described. Neurophysiological evidence relative to this postulation is discussed. (62 ref.)—*Journal abstract.*

7545. Gardner, Riley W., & Long, Robert I. (Menninger Found.) **Cognitive controls of attention and inhibition: A study of individual consistencies.** *Brit. J. Psychol.*, 1962, 53(4), 381-388.—Results of a previous study (Gardner, 1961) suggested that independent principles of cognitive control are involved in (a) extensiveness and (b) selectiveness of attention deployment. The present study extends these results by demonstrating that differential predictions can be made even when criterion scores for the 2 control principles are obtained from a single

set of judgements. It is also shown that individual differences in selective attention can be observed whether compelling irrelevant stimuli enclose, are enclosed by, or are interpolated among relevant stimuli, and that 2 forms of inhibition—extensiveness of scanning and inhibition of irrelevant motoric responses—may be associated. (21 ref.)—*Journal abstract*.

7546. McCormack, P. D. (U. Manitoba, Canada) **A 2-factor theory of vigilance.** *Brit. J. Psychol.*, 1962, 53(4), 357-363.—The findings of 7 studies on reaction time are related to those of the more conventional vigilance setting, discussed with respect to existing theories of vigilance and integrated within an inhibition-motivation framework. (20 ref.)—*Journal abstract*.

7547. Osborn, William C., Sheldon, Richard W., & Baker, Robert A. (USA Armor Human Research Unit, Fort Knox, Ky.) **Vigilance performance under conditions of redundant and nonredundant signal presentation.** *J. appl. Psychol.*, 1963, 47(2), 130-134.—Brief interruptions in a sound, a light, or both the sound and light, were monitored by 41 Ss over a 3-hour period. A dual response apparatus allowed the Ss to report the light signals, the sound signals, or both. The detection rate was found to be significantly better for the redundant signals than for either alone. While the detectability of each component of the redundant signal was comparable to its corresponding single mode, a systematic deviation in the bimodal curve—from predicted to observed—was noted. It was concluded that the weaker component of a redundant signal contributes significantly to the overall detectability, and the use of dual channel displays in applied vigilance situations is justified.—*Journal abstract*.

7548. Schmidt, Marianne W., & Kristofferson, Alfred B. (U. Cincinnati, Ohio) **Discrimination of successiveness: A test of a model of attention.** *Science*, 1963, 139(Whole No. 3550), 112-113.—Interpreting attention as a periodic phenomenon, we show its relevance to discriminating the successiveness of signals presented to separate sense modalities. Experiments confirm the expected linear relation between the probability of discriminating pairs of successive from pairs of simultaneous signals and make it possible to infer the period of attention.—*Journal abstract*.

LEARNING

7549. Agnew, Neil, & Agnew, Mary. (U. Saskatchewan) **Drive level effects on tasks of narrow and broad attention.** *Quart. J. exp. Psychol.*, 1963, 15(1), 58-62.—Easterbrook (1959) has predicted that: (a) performance on tasks involving the use of a wide range of cues will be impaired under high-drive conditions and that (b) performance on tasks requiring the use of only a narrow range of cues will be facilitated under such conditions. Using the Porteus Maze Test, relatively clear evidence was obtained to support the 1st prediction. Using the Stroop Colour Word Interference Test some evidence was obtained in support of the 2nd prediction. (17 ref.)—*Journal abstract*.

7550. Blick, Kenneth A., & Bilodeau, Edward A. (Tulane U.) **Interpolated activity and the learning of a simple skill.** *J. exp. Psychol.*, 1963, 65(5),

515-519.—2 experiments compared the effects of interpolated activity (R_b) on the acquisition of a simple arc-drawing response (R_a). The sequence of events was R_a -KR, R_b , R_a -KR, R_b , etc. For 1 group of Experiment I, R_b was identical to R_a , for 3 groups R_b was quantitatively similar, and for a final group R_b was opposite in direction. In Experiment II a rest-control group was used to evaluate the direction (sign) of transfer. The results indicated that the learning of R_a was not differentially affected by the similarity of R_b . The interpolated activity was also found to have no negative or positive transfer effects on the acquisition of R_a . The findings were related to several other null-producing procedures and their relevance to the Osgood Surface was discussed.—*Journal abstract*.

7551. Cratty, Bryant J. (U. California, Los Angeles) **Characteristics of human learning in an irregular-planned locomotor maze.** *Calif. J. educ. Res.*, 1963, 14(1), 36-42.—This is an informal recapitulation of a number of studies, by the author, of the behavior of college male volunteers in a physical education program in learning to "run" a 112-ft. plastic tubing, waist-high maze with an irregular pattern and no cul-de-sac. Observations are made in terms of learning rate, performance variability, use of sensory cues, knowledge of results, whole-part learning, and motivation.—T. E. Newland.

7552. Cratty, Bryant J. (U. California, Los Angeles) **Recency versus primacy in a complex gross motor task.** *Res. Quart. Amer. Ass. Hlth. Phys. Educ. Rec.*, 1963, 34(1), 3-8.—2 groups of male university students were given 10 spaced trials to learn a large locomotor maze. The Ss were blindfolded, and learning criterion was traversal time. First learned, based upon traversal speed, was the initial $\frac{1}{2}$ of the pattern; last to be learned was the 2nd $\frac{1}{2}$. Following the 4th trial, differences between 1st and 2nd $\frac{1}{2}$ traversals times exceeded the .01 level of significance. The recency-primacy phenomena seemed independent of the complexity of the pathway, as the 1st $\frac{1}{2}$ speed was always faster, regardless of the direction maze traversal occurred. (16 ref.)—*Journal abstract*.

7553. Ebenholtz, Sheldon M. (Connecticut Coll.) **Position mediated transfer between serial learning and a spatial discrimination task.** *J. exp. Psychol.*, 1963, 65(6), 603-608.—In a position learning task (PL) Ss learned to discriminate between 10 spatial locations arranged in a vertical array, by associating a nonsense syllable with each position. Transfer from serial learning (SL) to PL and from PL to SL was studied. In Condition C the temporal order of syllables in SL (i.e., from beginning to end) corresponded with the spatial location of the same syllables in PL (i.e., from top to bottom). The relative positions of the syllables was random in Condition D. In Condition R the relative syllable positions were displaced, however adjacent items in SL were at contiguous locations in PL. Transfer in both directions was highest in the 1st condition. With one exception, the results of Conditions D and R did not differ from each other. Results yield evidence for position learning in SL and raise the question of the role of sequential association.—*Journal abstract*.

7554. Eysenck, H. J., & Willett, R. A. (Inst. Psychiatry, U. London, England) **Performance and**

reminiscence on a symbol substitution task as a function of drive. *Percept. mot. Skills*, 1962, 15(2), 389-390.—High-drive and low-drive Ss were not differentiated in their performance on a symbol substitution task but were found to differ very significantly in their reminiscence scores. Low-drive Ss, counter to prediction, had higher reminiscence scores than high-drive Ss.—*W. H. Guertin*.

7555. Gollin, E. S. (Queens Coll.) Embedded figures, learning, and recall: A note on Long's paper. *Percept. mot. Skills*, 1962, 15(2), 326.—Long (see 37: 4375) attributes relationships between an embedded figures test and original learning and retention on another test to a common factor, Field-Articulation (FA). This author proposes that modifying the association value of words in the original learning task would demonstrate the value of FA as an explanatory principle.—*W. H. Guertin*.

7556. Kinkade, Robert G. (Ohio State U.) A differential influence of augmented feedback on learning and on performance. *USAF AMRL tech. docum. Rep.*, 1963, No. 63-12. iv, 10 p.—A test was conducted of the hypothesis that the training value of augmented feedback in a tracking situation will depend upon the discernibility of input and fundamental feedback signals. Ss performed a 1-dimensional compensatory tracking task using a knob for positional control over the cursor. For 2 of 4 groups of Ss the reference element was noisy, oscillating at random about a null position, while for the other 2 it was not. Augmented feedback, in the form of auditory clicks at the rate of 2 per sec. when on target, was given one of each pair of groups during training. On subsequent tests the performance of the group trained with augmented feedback and performing with the noisy display deteriorated to the level of its control group trained without feedback. But, the performance of the group trained with augmented feedback and performing on the noise-free display continued unchanged and superior to that of its control group trained without feedback. The results are regarded as confirming the hypothesis and as helping to explain previous contradictory findings on the value of augmented feedback. (15 ref.)—*USAF AMRL*.

7557. Maeda, S. (Osaka U., Japan) [An experimental test of g_{IR} in motor learning.] *Jap. J. Psychol.*, 1962, 33(3), 141-149.—Students were requested to write alphabet letters upside down under 2 conditions of pretest training (distributed or massed). In addition, either massed or distributed practice was given following the experimental session, after the formal rest period. Results indicated that distributed practice was superior using the work-limited method in pretest training, that massed practice yielded considerable reminiscence while distributed practice did not, and that analysis of posttest performance did not demonstrate g_{IR} .—*A. Barclay*.

7558. Manning, W. H., & Du Bois, P. H. (Texas Christian U.) Correlational methods in research on human learning. *Percept. mot. Skills*, 1962, 15(2), 287-321.—Frequently reported low correlation between change in learned proficiency and aptitude measures should be reinterpreted in the light of logical and empirical inadequacies of the crude difference criterion of change. Residual change measures, because they fit into correlational pro-

cedures and are correspondingly metric free, offer promise for the study of the correlates of gain in training and educational situations. The use of residual gain as a criterion for the validation of selection tests would serve to facilitate selection procedures oriented toward criteria of trainability or educability, rather than to achievement at a particular point in learning.—*W. H. Guertin*.

7559. Mukherjee, Bishwa N. (U. North Carolina) Transfer of two-hand coordination skill as a function of initial ability level. *J. gen. Psychol.*, 1962, 67(2), 215-223.—In a study of transfer of training from the simple to the complex part of a modified 2-hand coordination test the following hypotheses were: (a) there would be positive transfer from the simple to the complex part at all levels of initial ability, (b) the amount of transfer would vary systematically with variation in the group's initial performance on the 2-hand test, and (c) the amount of transfer for different groups would be more highly related to the group's initial ability level than the scores received on the simple part at the final phase of practice. Following the usual paradigm of transfer experiments, the experimental groups received 100 practice trials on the simple part which the control groups did not get. Then both the experimental and control group practiced for 100 trials on the complex part, 20 trials every day for 5 sessions. The results on the whole confirmed all 3 hypotheses formulated.—*Author abstract*.

7560. Naylor, James C., & Briggs, George E. (Ohio State U.) Effects of task complexity and task organization on the relative efficiency of part and whole training methods. *J. exp. Psychol.*, 1963, 65(3), 217-224.—Task complexity (2 levels), task organization (independence of task dimensions—2 levels), and training method (whole vs. progressive-part) were combined factorially in an 8-group transfer of training study of skill in a Markov prediction task. A hypothesized interaction of the 3 independent variables was supported by the data, thus suggesting the following training principle: for a relatively highly organized (integrated) task, a whole-task training method should be superior to a part schedule at all levels of task complexity; however, for a relatively unorganized task (all task dimensions independent), an increase in task complexity will result in a part-task training schedule becoming superior to whole training.—*Journal abstract*.

7561. Rosenberg, S. (Training School, Vineland, N. J.) The influence of intentional learning on incidental learning. *J. gen. Psychol.*, 1962, 67(2), 181.—This study attempted to evaluate the possibility that in the incidental learning design in which Ss are exposed to 2 classes of items, instructed to learn 1, but tested for retention of both, incidental learning is a function of generalization of learning instructions from the intentional task. 2 groups of Ss received a 1-trial presentation of 12 pictures of common objects, each of which was accompanied by a different 2-digit number. 1 group was instructed to learn the names of the objects, while the other was told only to observe a series of common objects, with no mention made of the numbers in either group. Results indicated that instructions to learn the object names significantly facilitated their retention, but had no effect upon retention of the numbers. Results were in-

terpreted as suggesting that incidental learning was not the result of generalization of learning instructions from the intentional task.—S. Rosenberg.

Conditioning

7562. Aiba, T. S. (U. London, England) **Can the absolute threshold be conditioned?** *J. exp. Psychol.*, 1963, 65(3), 233-239.—Earlier studies have suggested that the absolute threshold to light can be raised by certain irrelevant stimuli, such as a tone, that had previously been presented many times in the presence of adapting lights. An attempt was made to confirm this finding. 2 groups took part, each consisting of 6 Ss. The 1st group received a combination of a tone and a moderately bright light, the 2nd a tone and a weak red light. Later, the threshold was measured in the presence of the tone alone. Of the 2 groups, the 1st gave consistently higher thresholds. The effect is not attributable to adaptation. It is concluded that at least the possibility of the conditioning of the absolute threshold exists.—*Journal abstract.*

7563. Ekman, Paul; Krasner, Leonard, & Ullmann, Leonard P. (Stanford U.) **Interaction of set and awareness as determinants of response to verbal conditioning.** *J. abnorm. soc. Psychol.*, 1963, 66(4), 387-389.—The utility of an operant conditioning model to psychotherapy was evaluated by studying the definition of the situation given S and S's focus on E's behavior. Instructions induced either a positive or negative set, identifying a story telling task as a test of empathy or personal problems. Awareness was induced in $\frac{1}{2}$ of the Ss by calling attention to E's reinforcement "mm-hmm." 12 undergraduate students served as Ss in each of the 4 experimental groups. Positive set-Aware Ss increased use of emotional words, while Negative set-Aware Ss decreased use of emotional words. The results were interpreted as evidence that awareness can either facilitate or inhibit conditioning, depending upon S's set. (26 ref.)—*Journal abstract.*

7564. Grice, G. Robert; Simmons, Howard J., & Hunter, John J. (U. Illinois) **Failures to obtain mediated generalization effects in eyelid conditioning.** *J. exp. Psychol.*, 1963, 65(5), 485-489.—4 experiments employing differential conditioning of the eyelid response were conducted to investigate the phenomenon of mediated generalization. The intended mediating responses were instructed manual or verbal reactions. 3 of the experiments involved implicit representation of these responses initiated by the onset of the CS. In the 4th experiment the mediating response occurred just prior to the CS in order that the response-produced cues might form a favorable conditioning interval with the UCS. None of the experiments provided evidence for the operation of mediational effects. Experiments of this kind have yielded positive evidence only when the mediating response was overt and in close temporal proximity to the mediated response elicited.—*Journal abstract.*

7565. Haas, Kurt. (Bowling Green State U.) **Verbal conditioning of affective responses.** *J. gen. Psychol.*, 1962, 67(2), 319-322.—The possibility of employing verbal conditioning techniques to produce changes in affective verbal behavior was investigated. It was demonstrated, by variously reinforcing 3

groups of 30 Ss each, that an increase in the mean frequency of emotionally positive and emotionally negative endings to spoken incomplete sentences could be brought about by verbally reinforcing their occurrence. It was suggested that therapists might be inducing similar conditioned changes in the patient's verbal report, during the course of counseling, by concentrating on particular type of responses and differentially reinforcing their occurrence.—*Author abstract.*

7566. Hartman, Thomas F. (U. Wisconsin) **Semantic transfer of the differential conditioned eyelid response from words to objects.** *J. exp. Psychol.*, 1963, 65(2), 194-200.—This experiment investigated transfer of the eyelid CR from words to objects possessing characteristics of the words and evaluated the effects of concurrently verbalizing specific characteristics of the objects. 120 Ss were used. Findings were (a) marked discrimination early in the transfer phase even when the words initially differentially reinforced were unrelated to the objects; (b) more initial CR transfer to the positive object CS for 2 groups with initially relevant words—one group verbalizing a dimension of the objects identical to the words, the other group verbalizing another relevant dimension of the objects; (c) more initial transfer of discrimination only for the group verbalizing the dimension of the objects identical to the word CSs. (16 ref.)—*Journal abstract.*

7567. Kimmel, Ellen, & Kimmel, H. D. (U. Florida) **A replication of operant conditioning of the GSR.** *J. exp. Psychol.*, 1963, 65(2), 212-213.—An earlier study of operant conditioning of the GSR was replicated. 2 groups of 15 Ss were run in a totally dark room. After a 10-min. rest, the Contingent (C) group received a dim light following unelicited GSRs for 16 min., then 10 min. of extinction. The Noncontingent (N) group received the same number of lights per min. during reinforcement, when no GSRs were occurring. The dependent variable was the percentage of responses per min., using the average of the last 5 min. of rest as a baseline. Group C emitted significantly more responses during reinforcement and extinction than Group N ($p < .01$). The groups converged during extinction ($p < .05$). It was concluded that the unelicited GSR can be conditioned instrumentally.—*Journal abstract.*

7568. Kimmel, H. D., & Pennypacker, H. S. (U. Florida) **Differential GSR conditioning as a function of the CS-UCS interval.** *J. exp. Psychol.*, 1963, 65(6), 559-563.—Differential GSR conditioning at 4 CS-UCS intervals, $\frac{1}{4}$, $\frac{1}{2}$, 1, and 2 sec., was studied with 16 Ss in each condition. 16 reinforcements of CS+ and nonreinforcements of CS- were given, the CSs being 40-db. tones of 800 or 1000 cps. The UCS was an electric shock. Nonreinforced trials on CS+ were given after 4, 8, and 16 reinforcements. Differential conditioning increased as a function of the CS-UCS interval. The advantage of the 2-sec. condition was due in part to the low response to CS-. Later in conditioning the GSR to CS+ reduced in the 2-sec. condition but not in the others. These results were attributed to the more rapid growth of inhibition in the longer CS-UCS intervals.—*Journal abstract.*

7569. Lang, Peter J., Geer, James, & Hnatiow, Michael. (U. Pittsburgh) **Semantic generalization of conditioned autonomic responses.** *J. exp.*

Psychol., 1963, 65(6), 552-558.—Ss were presented with a series of verbal stimuli some of which were followed by electric shock. Subsequently they were administered unreinforced verbal stimuli, distributed along a scaled meaning dimension extending from words similar to those shocked to neutral words. Responses in 3 autonomic systems were monitored (finger plethysmograph, heart rate, and GSR). Generalized responses were found to words very similar in meaning to the training stimuli. Response amplitude fell off sharply with the presentation of less closely related words.—*Journal abstract.*

7570. Martin, Irene. (U. London, England) GSR conditioning and pseudoconditioning. *Brit. J. Psychol.*, 1962, 53(4), 365-371.—Ss were placed into conditioning or pseudoconditioning groups, and received 1, 3, or 5 UCS trials (paired with CS or single). The sequence of the schedule was: 10 light stimuli—tones (the UCS)—10 light stimuli. Significantly more GSR's were given to the final light series than to the first. Conditioning groups together gave significantly more responses than pseudoconditioning groups during the final lights. However, the effect of different numbers of UCS trials was more clear-cut between pseudoconditioning groups. Basal skin resistance was significantly lower in all groups following the tones. There was no difference between conditioning and pseudoconditioning groups in this measure. Number of GSR's and basal skin resistance were not significantly correlated in the 1st light series, but were highly (negatively) so in the final light series. Autonomic Liability Scores to tone 1 correlated significantly with number of GSR's to both light series only in the conditioning groups. This effect was interpreted as a generalized responsiveness of these groups plus a small facilitatory effect from the extent of the S's response to the tones. The results are discussed from 2 points of view: (a) physiological, and considering how various CNS levels might affect GSR amplitude and threshold via excitability of spinal internuncial neurones, and (b) within behavioral theories of learning, and considering the effect of the UCS upon level of "drive." (15 ref.)—*Journal abstract.*

7571. Moore, John W., & Gormezano, Isidore. (Indiana U.) Effects of omitted versus delayed UCS on classical eyelid conditioning under partial reinforcement. *J. exp. Psychol.*, 1963, 65(3), 248-257.—The comparative effects in eyelid conditioning of 2 partial reinforcement techniques of UCS omission and UCS delay was investigated under 3 partial reinforcement schedules of 25, 50, and 75%. Under both procedures reinforced trials consisted of presentation of the UCS at a CS-UCS interval of 500 msec. It was found that: (a) UCS omission resulted in higher levels of conditioning and greater resistance to extinction than UCS delay; (b) shorter CR latencies were obtained under UCS omission than UCS delay; and (c) acquisition performance increased directly with percentage reinforcement, but reinforcement schedule failed to produce systematic effects on extinction. An associative and nonassociative interpretation was offered for the decremental effects of the UCS-delay procedure. (15 ref.)—*Journal abstract.*

7572. Passey, George E., & Burns, Thomas C. (U. Alabama) Influence of variable reinforcement upon acquisition of the conditioned eyelid re-

sponse. *Psychol. Rep.*, 1962, 11(2), 547-552.—6 groups of students (N = 65) received 50 eyelid conditioning trials followed by 15 extinction trials for $\frac{1}{2}$ the Ss in each group. $\frac{1}{2}$ the groups were trained with mean UCS (air puff) intensity of 5.5 lb. per square in. and $\frac{1}{2}$ with a mean of 8.0 lb. per square in. Under each intensity value, 1 group (C) was always stimulated at the mean UCS intensity, while intensity varied randomly with a standard deviation of 1.9 lb. per square in. for 1 group (HV) and 0.9 lb. per square in. for the other (LV). Number of anticipatory responses during acquisition increased with higher mean UCS intensity, and decreased with greater variability of intensity. Resistance to extinction was not affected.—*B. J. House.*

7573. Rickard, Henry C., & Dinoff, Michael. (U. Alabama) A follow-up note on "Verbal Manipulation in a Psychotherapeutic Relationship." *Psychol. Rep.*, 1962, 11(2), 506.—(See 37: 3370) A 62-year-old male psychiatric patient was retested 2 years after a verbal conditioning experiment in which rational speech was increased by social reinforcement. No performance loss was observed over the 2-year interval.—*B. J. House.*

7574. Runquist, Willard N. (Pomona Coll.) Performance in eyelid conditioning following changes in reinforcement schedule. *J. exp. Psychol.*, 1963, 65(6), 617-618.—4 groups of 16 Ss were run in a classical eyelid conditioning experiment. 2 groups received 76 trials under a random 50% reinforcement schedule, 1 group with a 50-mm. airpuff as the UCS and the other group with a 100-mm. airpuff as the UCS. The other 2 groups received 60 trials of 100% reinforcement followed by 16 trials of 50% reinforcement. The same 2 UCS intensities were used in these 2 groups. Acquisition data showed little effect of UCS intensity although partial reinforcement resulted in lower performance. Following the shift, performance dropped in the continuously reinforced groups, and there was little evidence of any overall difference in postshift performance. A further analysis of the trials following nonreinforcement suggested that nonreinforcement produced more inhibition when the UCS was stronger.—*Journal abstract.*

7575. Simkins, Lawrence. (Florida State U.) Instructions as discriminative stimuli in verbal conditioning and awareness. *J. abnorm. soc. Psychol.*, 1963, 66(3), 213-219.—This investigation was to study the effects of preconditioning instructions and type of reinforcer on level of awareness and extent of conditioning. Prior to a conditioning task, Ss in different experimental groups were given varying degrees of information concerning the nature of the reinforcement and the reinforcement contingency. In some groups of Ss the reinforcement consisted of E saying "good" while in other experimental groups the Ss received points as reinforcement. The results indicated that the degree of conditioning and level of awareness were partially dependent upon the amount of information in the preconditioning instruction. However, in experimental groups where only partial information was given, Ss who received points conditioned better than Ss who received "good" even though there were no differences in the level of awareness. The nature of the response class was also found to be an important variable that affected the level of conditioning.—*Journal abstract.*

7576. Spielberger, Charles D., & DeNike, L. Douglas. (Duke U.) Operant conditioning of plural nouns: A failure to replicate the Green-spoon effect. *Psychol. Rep.*, 1962, 11(2), 355-366.—Ss instructed to say words were reinforced after plural nouns by E's saying "mmm-hmm." An intensive interview conducted immediately after the 15-min. conditioning period revealed 2 partially aware Ss. "Comparison of the rate of emission of plural nouns for 20 unaware Ss who received reinforcement with 10 nonreinforced controls, carefully matched for initial operant rate, revealed no significant differences between these groups. The possibility that findings of 'learning without awareness' in other investigations of verbal conditioning might be artifacts of the failure to detect awareness of response-reinforcement contingencies in some subjects, and/or inadequate control for operant rate, was discussed."—B. J. House.

7577. Ulrich, R. E. (Wesleyan U.) Conversation control. *Psychol. Rec.*, 1962, 12, 327-330.—As a test of the hypothesis that verbal conditioning is more a reflection of E's expectations than S's verbal behavior, student Es were instructed to say "uh-huh" (agreement) or "huh-uh" (disagreement) following statements of opinion for 3 10-min. periods. In 5 classes of Es only 12-30% completed the experiment. Mean number of opinion statements remained constant despite changes in the verbal reinforcer.—R. J. Seidel.

7578. Wickens, Delos D., & Cross, Henry A. (Ohio State U.) Resistance to extinction as a function of temporal relations during sensory preconditioning. *J. exp. Psychol.*, 1963, 65(2), 206-211.—This experiment investigated the effect of inter-stimulus interval within the range of 0 to 600 msec. in sensory preconditioning. The basic design was: 10 preconditioning trials to light and tone; GSR conditioning to light with shock UCS for 10 trials; 4 tests to tone. 4 groups of 20 Ss were used in different tone-light interstimulus intervals during preconditioning. The interval differences were 0, 100, 400, and 600 msec., tone preceding light. The groups differed significantly in response strength during the tests to the tone, with order of response magnitude from lowest to highest being 600, 0, 100, and 400; an order similar to that found in interstimulus interval-curves in ordinary conditioning and in elements of a compound CS.—*Journal abstract.*

Discrimination

7579. Cameron, Donald B. Post-discrimination gradients around stimuli with differential rates of occurrence in a discrete response task. *USAF ESD tech. docum. Rep.*, 1962, No. 62-352. iii, 25 p.—Generalization gradients in an identification type task reflect the willingness to apply identifying labels to stimuli which deviate from what might be called the "ideal standard" of a class. After training Ss to discriminate between pairs of ideal standards varied in both discriminability and frequency of occurrence, it is shown that postdiscrimination generalization gradients are characterized by a redistribution of identifying responses around the more frequent standard as a function of discriminability.—*USAF ESD.*

7580. Simon, S. H. (VA Hosp., Tomah, Wis.) Effect of a relevant observation stimulus on human discrimination learning as a function of posi-

tion of the relevant stimulus. *Percept. mot. Skills*, 1962, 15(2), 359-365.—54 Ss were given 32 trials on a discrimination problem involving 1 relevant and 2 irrelevant stimulus dimensions with 2 levels to each dimension. All 3 dimensions were represented on each trial, varying between their 2 levels from trial to trial but maintaining their relative positions. Ss were divided into 3 groups with the relevant dimension being in a different position for each group. In addition, $\frac{1}{2}$ of each group had a dot over the relevant dimension. Results showed that the dot did significantly facilitate learning, with the difference between groups being most evident when the relevant dimension was in the middle position.—W. H. Guertin.

Verbal Learning

7581. Battig, William F., & Brackett, H. Ray. (U. Virginia) Transfer from verbal-discrimination to paired-associate learning: II. Effects of intralist similarity, method, and percentage occurrence of response members. *J. exp. Psychol.*, 1963, 65(5), 507-514.—In agreement with previous results, paired-associate (PA) performance was not significantly facilitated on pairs identical to those of a previous verbal-discrimination (VD) list, whereas poorer performance resulted if the VD and PA items were paired differently, as compared with PA items excluded from the VD list. These transfer effects were unaffected by intralist similarity or percentage occurrence of response members (ORM), but were largely eliminated under the recall method of PA learning. Contrary to previous findings, overall recall-method PA performance was only insignificantly superior to that under the standard anticipation method. Moreover, a contrasting distinct superiority of the anticipation method was found under conditions of 50% ORM, especially for medium intralist similarity.—*Journal abstract.*

7582. Bugelski, B. R., & Rickwood, J. (U. Buffalo) Presentation time, total time, and mediation in paired-associate learning: Self-pacing. *J. exp. Psychol.*, 1963, 65(6), 616-617.—The present report supplements an earlier study where it was shown that while Ss who have long presentation times learn paired associates in fewer trials than Ss with short presentation times, total learning time is the same. 20 college student Ss controlled their own presentation times for the same material. Their total learning times did not vary significantly from the earlier study. It is concluded that a fixed amount of time is required to learn a fixed amount of material regardless of distribution of time over continuous trials.—*Journal abstract.*

7583. Goggin, Judith. (U. California) Influence of the written recall measure on first-list associations. *J. exp. Psychol.*, 1963, 65(6), 619-620.—An experiment using A-B, A-C and A-B, A-B' paradigms was due to ascertain if first-list responses are available even though the associations are extinguished. The recall task was designed to maximize response recall. Response recall for both lists was higher in the A-B, A-B' group. Considering the stringent scoring method alone, differences between lists, paradigms, and interaction between lists and paradigms were significant. The general results confirm Barnes and Underwood's (1959) conclusion that both the associations are extinguished and the re-

sponses are unavailable after learning the A-C list.—*Journal abstract.*

7584. Horowitz, Leonard M., & Larsen, Suzanne R. (Stanford U.) **Response interference in paired-associate learning.** *J. exp. Psychol.*, 1963, 65(3), 225-232.—Response familiarization can facilitate or hinder subsequent paired-associate (PA) learning, but the critical task-variables have not been known. The present study suggests that items learned during familiarization may compete with the responses of the PA task. 80 Ss participated in a familiarization task and then learned English-Japanese word pairs by the PA or associative matching method. (In associative matching S does not produce the responses, so extralist responses cannot intrude.) Group I was familiarized with only relevant responses; Group II, with irrelevant but similar responses; Group III, with irrelevant, dissimilar responses; and Group IV had no familiarization. In associative matching the performance of Groups I and II was superior to that of Groups III and IV ($p < .001$). In PA learning the performance of Group I was facilitated while that of Group II was hindered ($p < .05$). (15 ref.)—*Journal abstract.*

7585. Jensen, Arthur R. (U. California) **Serial rote-learning: Incremental or all-or-none?** *Quart. J. exp. Psychol.*, 1963, 15(1), 27-35.—If the associative connections in a serial list are acquired in an all-or-none fashion, rather than gradually with every trial adding an increment of associative strength, then changing the serial order of the middle items in the list during the course of practice should have no effect on the rate of learning the list as a whole or even of the particular items that have been interchanged. 30 Ss learned a serial list by the anticipation method. The middle items of the list were reversed in serial order approximately half-way through the number of trials required for mastery. The Ss took no longer to learn the list and made no more errors than did 30 control Ss for whom there was no change in serial order. The serial-position curves of the 2 groups were almost identical. It was also shown that the learning "curves" of single items in the series, when plotted for individual Ss do not reveal a gradually increasing probability of the correct response, but show instead a sudden jump on one trial from the chance guessing level to a level close to 100% correct responses. The results are consistent with a nonincremental theory of serial learning.—*Journal abstract.*

7586. Kausler, Donald A., & Kanoti, George A. (St. Louis U.) **R-S learning and negative transfer effects with a mixed list.** *J. exp. Psychol.*, 1963, 65(2), 201-205.—Transfer effects (both S-R and R-S) were investigated within a mixed list (C-D, C-B, A-C, A-B). 60 Ss learned List 1 (A-B) to a criterion and then received 10 trials on the mixed list (List 2). An R-S trial was given for each list. C-B pairs yielded significant negative transfer, confirming Twedt and Underwood's (1959) earlier finding. The amount of transfer for C-B pairs correlated with R-S score on C-B pairs ($r = .35$ for relative transfer), providing support for a confusion hypothesis. The paradigms differed significantly in R-S score on List 2, with C-D the greatest amount, then A-C, C-B, and A-B. C-D increased significantly in R-S recall from List 1 to 2, A-B, decreased significantly, and A-C and C-B were unaffected.—*Journal abstract.*

7587. Kjeldergaard, Paul M. (Harvard U.) **Predicting paired-associate learning speed.** *Psychol. Rep.*, 1962, 11(2), 353-354.—Scores on Part V of the Modern Language Aptitude Test were significantly correlated with paired-associate learning speed in 2 studies with a total of 158 students. Use of these scores for partially controlling differences in rote learning ability is advocated.—*B. J. House.*

7588. Kleinsmith, Lewis J., & Kaplan, Stephen. (U. Michigan) **Paired-associate learning as a function of arousal and interpolated interval.** *J. exp. Psychol.*, 1963, 65(2), 190-193.—This experiment tested the hypothesis that due to the phenomenon of preservative consolidation, a pattern perceived under high arousal should show stronger permanent memory and weaker immediate memory than a pattern accompanied by low arousal. While recording skin resistance as a measure of arousal, 48 Ss were presented 8 paired associates for learning. The Ss were tested at various time intervals: 2 min., 20 min., 45 min., 1 day, and 1 wk. The results confirmed the hypothesis ($p = .001$). Paired associates learned under low arousal exhibited high immediate recall value and rapid forgetting. High arousal paired associates exhibited a marked reminiscence effect, that is, low immediate recall and high permanent memory.—*Journal abstract.*

7589. Kothurkar, V. K. (U. Poona) **Effect of stimulus-response meaningfulness on paired-associate learning and retention.** *J. exp. Psychol.*, 1963, 65(3), 305-308.—Ss learned, recalled, and relearned 4 differently constituted paired-associate lists, consisting of dissyllables and paralogues of high and low meaningfulness. Both stimulus and response meaningfulness facilitated learning though the effect of the latter was much greater. As expected, the increasing rank order of difficulty of High-High, Low-High, High-Low, and Low-Low was obtained for learning; however, this hierarchy of effects was distributed in the case of retention by Low-High scoring over even High-High. High meaningful responses are better remembered when paired with low meaningful stimuli than when associated with high meaningful stimuli. Inferior retention of High-High was explained in terms of spontaneous recovery of older connections and interference from them.—*Journal abstract.*

7590. Landauer, Thomas K. (Dartmouth Coll.) **Two states of paired-associate learning.** *Psychol. Rep.*, 1962, 11(2), 387-389.—14 students were presented with 9 consonant trigram pairs, then tested with stimulus terms only. "Items which were not correctly recalled after a single trial on a paired-associate list were tested again by a recognition method. Significantly more items were recognized than would be expected by chance, demonstrating that some learning does occur on trials which do not yield sufficient learning to produce recall."—*B. J. House.*

7591. Marston, Albert R., & Kanfer, Frederick H. (U. Wisconsin) **Group size and number of vicarious reinforcements in verbal learning.** *J. exp. Psychol.*, 1963, 65(6), 593-596.—The relationship of group size to vicarious reinforcement (VR) was investigated under conditions controlled either for number or percentage of reinforced responses heard by Ss in simulated groups. The effect of adding direct reinforcement (DR) to the observing S was examined at each level of group size. In a modi-

fied verbal conditioning task, with "Good" as reinforcer and Humans as critical class, Ss said words intermittently with a recorded voice. It was found that decreasing proportion of reinforced vicarious responses by increasing group size resulted in significantly lower learning. When number of reinforcements increased (proportion held constant), learning curves did not differ. Adding DR to VR did not significantly increase learning at any level of group size.—*Journal abstract.*

7592. Martin, Clessen J., & Saltz, Eli. (Wayne State U.) Serial versus random presentation of paired associates. *J. exp. Psychol.*, 1963, 65(6), 609-615.—The effect of constant serial order in presentation of paired associates was investigated in 2 experiments. Experiment I (100 Ss) found that constant order resulted in serial associations between the response items of the pairs (significant beyond .01) but, contrary to other studies, did not facilitate paired-associate learning. Experiment II (72 Ss) tested the hypothesis that facilitory effects due to constant order were a function of S-R presentation rate. Contrary to prediction, no facilitory effect occurred at any presentation rate. Results indicate that, contrary to previous belief, serial presentation of paired associates does not necessarily facilitate learning.—*Journal abstract.*

7593. McCullers, John C. (U. Texas) An analysis of some factors underlying intralist associative transfer in paired-associate learning. *J. exp. Psychol.*, 1963, 65(2), 163-168.—A within-list method proposed by Spence for varying associative strength and degree of competition in paired-associate learning served as the basis of a logical analysis. With Spence's method as the basic model the analysis resulted in the formulation of 2 new models. 48 6th grade children served as Ss in an investigation of these 3 models. The results supported an hypothesis that number and type of competitive connections are important in determining the degree of intralist associative transfer. A general implication was that the new models might prove less complicated than the original method for the purpose of assessing hypotheses relating to the interaction of habit and drive.—*Journal abstract.*

7594. Peterson, Lloyd R., Brewer, Charles L., & Bertuccio, Richard. (Indiana U.) A guessing strategy with the anticipation technique. *J. exp. Psychol.*, 1963, 65(3), 258-264.—The capacity of Ss to utilize memory for recently presented responses to maximize guessing success was studied in 2 experiments. A serial anticipation technique was used with a list of 9 words. In Experiment I the same words were used in a paired-associate task. Ss tended to give responses which had not previously been presented on the current trial. Correct responses increased significantly toward the end of a trial. Omissions increased from beginning to end of a trial. It was considered that a guessing strategy could produce the latter portion of the serial error curve, and in any list-learning inflate estimates of associative strength obtained by scoring anticipations.—*Journal abstract.*

7595. Rock, Irvin, & Steinfeld, George. (Yeshiva U.) Methodological questions in the study of one-trial learning. *Science*, 1963, 140(Whole No. 3568),

822-824.—The substitution method may lead to poorer learning than the customary repetition method when learned pairs are eliminated after each trial. This results from a procedure in which the S is required to spell the response. Spelling leads to greater difficulty in learning the response item but repetition tends to counteract it.—*Journal abstract.*

7596. Schulz, R. W., & Tucker, I. F. (State U. Iowa) Stimulus familiarization and length of the anticipation interval in paired-associate learning. *Psychol. Rec.*, 1962, 12, 341-344.—Previous studies with anticipation intervals from 1.0 to 2.5 sec. found that articulating the stimuli during a familiarization period (SF) facilitated P-A learning when S was required to pronounce stimuli and retarded it when S was instructed not to pronounce. The present study tested the hypothesis that a longer anticipation interval of 4 sec. would show no or substantially reduced facilitation or inhibition. Results showed no effect of SF.—*R. J. Seidel.*

7597. Wittrock, M. C. (U. California, Los Angeles) Effect of certain instructions upon conceptually mediated learning. *J. educ. Psychol.*, 1963, 54(2), 85-88.—To test the effect of certain sets upon learning, written passages on Buddhism were given to 143 college students. Before they read the passage 3 groups of Ss were given, respectively, a set to compare, contrast, and compare and contrast Buddhism with Christianity. A 4th group of Ss was given a set to understand and to remember the content of the passage on Buddhism. The data were analyzed by *t* tests for differences between means. Although Group 1 was not significantly different ($p > .05$, 2-tailed) from Group 4, Groups 2 and 3 were significantly different ($p < .05$, 2-tailed) from Group 4 on both the learning and retention tests. It was concluded that learning sets are important variables in some types of complex verbal learning.—*Journal abstract.*

Reinforcement (Including Probability Learning)

7598. Hetherington, Mavis, & Ross, Leonard E. (U. Wisconsin) Effect of sex of subject, sex of experimenter, and reinforcement condition on serial verbal learning. *J. exp. Psychol.*, 1963, 65(6), 572-575.—Sex of S, sex of E, and verbal reinforcement condition were investigated in a serial trigram learning situation. 10 male and 10 female Es each ran 24 Ss—12 males and 12 females equally divided into verbal reward, neutral, and verbal punishment conditions. Sex of E and interactions involving this factor were not significant, but the E and E × Reinforcement Condition × Sex of S variables, were significant. A significant Sex of S × Reinforcement Condition interaction was found. Male performance differences across reinforcement conditions were not significant but females learned significantly faster under reward or punishment than under neutral conditions. Females learned significantly more rapidly than males only under the punishment condition.—*Journal abstract.*

7599. Kanfer, Frederick H., & Marston, Albert R. (U. Oregon Medical School) Human reinforcement: Vicarious and direct. *J. exp. Psychol.*, 1963, 65(3), 292-296.—4 experimental groups of 9 Ss each said words intermittently with a taped simulated group in a verbal conditioning task. In a factorial

design groups were given vicarious reinforcement (VR), direct reinforcement (DR), both, or neither. VR consisted of Ss listening to E's "Good" when a taped S gave a critical response. DR consisted of saying "Good" directly to S. Control groups heard tapes with fewer critical responses and no VR, or no tape. Half of the Ss in each condition were directly reinforced, half were not reinforced. In extinction no tape was played. VR significantly facilitated learning in experimental groups, with DR showing no additional effects. The control groups failed to learn. Extinction differences were due to differences in acquisition levels.—*Journal abstract.*

7600. Levin, Gerald R., & Simmons, John J., III. (Brown U.) Response to food and praise by emotionally disturbed boys. *Psychol. Rep.*, 1962, 11(2), 539-546.—In a previous experiment, 6 of 12 boys quickly stopped responding in an operant (marble dropping) discrimination task upon the introduction of verbal praise as a reinforcer. In the present study, 3 of the 6 boys performed on the same task with peanuts as reinforcement and the other 3, matched for performance on the previous task, performed with peanuts plus verbal praise. Peanut reinforcement significantly increased duration and rate of responding. Comparison of the 2 groups suggested that praise suppressed response rate. Thus results were consistent with a reinforcement theory of the boy's behavior rather than an explanation based on attention span or frustration tolerance.—B. J. House.

7601. Shaffer, Juliet Popper. (U. Kansas) Effect of different stimulus frequencies on discrimination learning with probabilistic reinforcement. *J. exp. Psychol.*, 1963, 65(3), 265-269.—A model developed by Burke and Estes generated predictions for a 2-stimulus (T_1, T_2), 2-response (A_1, A_2) successive discrimination learning problem, which consisted of predicting which of 2 reinforcing events, E_1 or E_2 , would occur on each of the 324 trials. The probability of E_1 was 1.00 on T_1 trials and .50 on T_2 trials. 3 groups of 32 Ss each differed in the probability (β) of T_1 trials. It was predicted that the final observed proportions of A_1 responses on T_1 and T_2 trials [$P(A_1|T_1)$ and $P(A_1|T_2)$] would be linear increasing functions of β , with equal slopes. The final $P(A_1|T_1)$ was a linear increasing function of β ($p < .01$) while the final $P(A_1|T_2)$ was a linear decreasing function ($p < .05$). Thus, the results did not conform to the predictions derived from the model.—*Journal abstract.*

7602. Schusterman, Ronald J. (Yerkes Lab. Primate Biology) Influence of patterns and percentages of reinforcement on resistance to extinction. *Psychol. Rep.*, 1962, 11(2), 573-574.—"Thirty-nine Ss served in a verbal-expectancy task. The results revealed that the effects of patterning (reinforcement or nonreinforcement termination) and percentages (75% or 25%) interact during extinction. There was a greater resistance to extinction with reinforcement termination, but only under the 75% condition."—B. J. House.

Learning Theory

7603. Anderson, Norman H. (U. California, Los Angeles) Comparison of different populations: Resistance to extinction and transfer. *Psychol.*

Rev., 1963, 70(2), 162-179.—The problem is considered of comparing resistance to extinction when a "correction" for systematic differences in initial extinction response level is required. It is shown that the most commonly used correction procedures have limited merit. 2 other approaches are taken up. A specific mathematical model may be employed and some parameter of the model used as a measure of resistance to extinction. The advantages of this approach are balanced by its limited applicability. The shape function method, which has considerable generality, is presented and statistical test procedures are derived for it. Some applications are also pointed out for other areas of learning. (33 ref.)—*Journal abstract.*

7604. Berlyne, D. E. (U. Toronto) Comments on Prokasy's reply. *Psychol. Rep.*, 1962, 11(2), 581-582.—"Questions raised by Prokasy [see 37: 7771], regarding measurement of degree of conflict and the role of conflict in intermittent reinforcement, are discussed."—B. J. House.

7605. Stone, David R. (Utah State U.) A gross features model of human learning. *Psychol. Rep.*, 1962, 11(2), 367-374.—A schematic representation of 32 human learning factors is presented as a guide for study. Factors are classified under 4 major headings: The Learning Situation, Readiness of the Organism, Interpretation (e.g., perception, cognition), and The Trial (e.g., distribution, reinforcement). Each factor is illustrated by examples of related research.—B. J. House.

7606. Suppes, Patrick, & Ginsberg, Rose. (Stanford U.) A fundamental property of all-or-none models, binomial distribution of responses prior to conditioning, with application to concept formation in children. *Psychol. Rev.*, 1963, 70(2), 139-161.—A basic assumption of the simple all-or-none conditioning model is that the probability of a correct response remains constant over trials before conditioning. 4 implications of this assumption were tested: (a) prior to the last error there will be no evidence of learning, (b) the sequence of responses prior to the last error forms a sequence of Bernoulli trials, (c) responses prior to the last error exhibit a binomial distribution, and (d) specific sequences of errors and successes are distributed in accordance with the binomial hypothesis. These 4 tests were performed on the data from 7 experiments concerned with concept formation in children, paired-associate learning and probability learning in adults, and T maze learning in rats. The statistical evidence from these various experimental groups provided substantial support of the all-or-none model. However, when Vincent curves were constructed for responses prior to the last error, some of the learning curves showed significant departures from stationariness.—*Journal abstract.*

RETENTION & FORGETTING

7607. Baddeley, A. D. (Medical Research Council, Cambridge, England) A Zeigarnik-like effect in the recall of anagram solutions. *Quart. J. exp. Psychol.*, 1963, 15(1), 63-64.—Ss were asked to solve a series of 12 anagram problems. For each of these they were allowed 1 min. and if they did not solve it in this time they were told the solution. When asked to recall the solution words at the end of the series,

Ss remembered items they had failed to complete almost twice as often as those they had solved. It is suggested that this phenomenon is analogous to the Zeigarnik effect, but that it has the advantage of occurring in conditions which are easy to specify and control.—*Journal abstract.*

7608. Brackbill, Yvonne; Isaacs, Robert B., & Smelkinson, Norman. (U. Colorado Medical School) Delay of reinforcement and the retention of unfamiliar, meaningless material. *Psychol. Rep.*, 1962, 11(2), 553-554.—4 groups of 3rd-grade boys ($N = 24$) were required to learn the correct item in each of 18 pairs of bigrams with either 0- or 10-sec. delay of reinforcement. Length of delay did not affect acquisition. During relearning, 1 or 8 days after acquisition, the 10-sec. delay groups did significantly better than the 0-delay groups. This replication of previous studies using familiar stimulus material shows the facilitating effect of delay on retention present for unfamiliar material as well.—B. J. House.

7609. Fitzgerald, Donald, & Ausbel, David P. (U. Alberta) Cognitive versus affective factors in the learning and retention of controversial material. *J. educ. Psychol.*, 1963, 54(2), 73-84.—264 Illinois high school students studied a passage presenting a Southern interpretation of the Civil War. When general knowledge about the Civil War period was held constant in an analysis of covariance design, the differential effect of attitudinal bias on retention was eliminated. This finding suggests that it is the lack of appropriate subsuming concepts in attitude structure, rather than the direct effect of affective factors on retention processes, that renders "other side" arguments more susceptible to forgetting. Further substantiating the greater relative importance of cognitive factors were the facts that the more knowledgeable Ss learned more than the less knowledgeable Ss, and that an organizing passage facilitated retention.—*Journal abstract.*

7610. Green, Donald Ross. (Emory U.) Volunteering and the recall of interrupted tasks. *J. abnorm. soc. Psychol.*, 1963, 66(4), 397-401.—It was hypothesized that the proportion of interrupted tasks recalled would be greatest among volunteers serving by choice and least among draftees not willing to volunteer, with draftees who had been willing to volunteer falling between the 2. Within each of these 3 groups those given task orienting instructions were expected to recall greater proportions of interrupted tasks than those given ego orienting instructions. College students divided into 6 groups of 16 Ss each in a 3×2 factorial design were tested individually using the standard Zeigarnik procedure. The results conformed to expectations although the differences among the volunteering groups were small. It was argued that differences in degree of task involvement and ego involvement account for these results.—*Journal abstract.*

7611. Green, Robert T., & Harding, Graham. (University Coll. London, England) Sequential recall of a mixed list. *Brit. J. Psychol.*, 1962, 53(4), 389-396.—A previously reported finding that an item with a high probability of recall will not necessarily be emitted any earlier in a recall series was submitted to closer investigation. The anomalous result was reproduced, using the original experimental design. 2 further groups were introduced to control context ef-

fects and item uniqueness. More careful analysis shows that the factors governing order of emission during recall may be distinguished from those affecting the overall probability of recall. The 2 processes are distinct and, in some circumstances, independent. After eliminating various alternative hypotheses the outcome in the present instance was found to depend largely on previously learned associations of meaningful material. The implications of this with regard to the von Restorff effect are discussed. During the course of this experiment an interesting side effect intruded itself on the data. For reasons not at present clear, there was a significant tendency for the recall of paralogos to be disturbed in the presence of a noun, and to a lesser extent, for the recall of nouns to be disturbed by the presence of a paralog.—*Journal abstract.*

7612. Holding, D. H. (U. Leeds, England) Transfer between difficult and easy tasks. *Brit. J. Psychol.*, 1962, 53(4), 397-407.—The existing literature on unequal transfer between difficult and easy tasks shows that it is impossible to predict the direction of optimum transfer on the basis of the relative difficulty of the 2 tasks. The 1st experiment explores an absolute difficulty hypothesis to the effect that transfer might be greater from a point of optimum difficulty, whether to an easier or to a more difficult task; changes in difficulty were achieved by controlled variation of the complication of pursuit tracking courses. However, after a week's practice on the 12 task conditions, it appeared that transfer was consistently most effective in the difficult-easy direction. In a 2nd experiment Ss were transferred between tasks with easy and difficult course amplitudes, at both easy and difficult levels of complication. In this case, the easy-difficult order of practice was better with the simpler courses, while the complex courses favoured difficult-to-easy transfer. It is concluded that difficulty is not a useful category for the prediction of transfer efficiency, and that the solution lies in examining the skills involved. Explanations are outlined in terms of inclusion and error size constancy, although it is probable that many other factors play a part. (35 ref.)—*Journal abstract.*

7613. Lloyd, Kenneth E., & Johnston, William A. (Washington State U.) Short-term retention as a function of contextual constraint. *J. exp. Psychol.*, 1963, 65(5), 460-467.—Contextual constraint has improved recall in the classic memory span task. Here this variable was manipulated in a sequential memory task in which S continually received information, and, at unpredictable moments, was requested to recall some of it. In Experiment I 24 undergraduates continuously stored an average of 3 or 7 items and recalled them 2 at a time. This required many recall points which interrupted the continuity of contextual passages. The effect of varying contextual constraint was significant ($p < .01$), but small. In Experiment II interruptions were gradually reduced by requesting more and more items per recall point. Recall improved ($p < .01$) as constraint increased and as interruptions decreased; these variables interacted. Interruptions severely curtailed the benefits of context.—*Journal abstract.*

7614. Murdock, Bennet B., Jr. (U. Vermont) Short-term retention of single paired associates. *J. exp. Psychol.*, 1963, 65(5), 433-443.—6 experi-

ments investigated the short-term retention of single paired associates. Ss learned individual A-B pairs during 1 presentation of a list, then tried to recall the B member of the critical pair given A as the cue for recall. The first 2 experiments were replications of a previous study with number of prior pairs the parameter, the 2nd 2 experiments controlled for list length by using 6-pair lists, and the 3rd set of experiments attempted to assess the role of proactive inhibition (PI). Marked forgetting of single pairs consistently occurred within a retention interval of 6-10 sec., and increasing the number of prior pairs slightly decreased probability of recall. Very little interlist PI occurred, and the intralist PI decreased over time in contrast with the increase in PI over time that is usually found in the study of long-term retention.—*Journal abstract.*

7615. Waugh, Nancy C. (Harvard U.) **2 methods for testing serial memorization.** *J. exp. Psychol.*, 1963, 65(2), 215-216.—The learning curve obtained with the method of serial recall (alternate viewing and recall of an entire list) is compared with that obtained with the classical method of anticipation. Both are rectilinear with almost identical slopes. Each can be interpreted to represent a cumulation of memory spans over trials, in accordance with the results of previous studies.—*Journal abstract.*

THINKING

7616. Hilgard, Ernest R. (Stanford U.) **Impulsive versus realistic thinking: An examination of the distinction between primary and secondary processes in thought.** *Psychol. Bull.*, 1962, 59(6), 477-488.—The nature of the distinction between primary and secondary processes, as described by Freud, has relevancy for both a cognitive psychology and a psychology of motivation. Several issues arising from an examination of the 2 processes are examined. Possible empirical approaches to the basic problems are presented.—*W. J. Meyer.*

7617. Maltzman, Irving. (U. California, Los Angeles) **Motivation and the direction of thinking.** *Psychol. Bull.*, 1962, 59(6), 457-467.—Many, but not all, of the problems involved in directed thinking can be explained in terms of associative variables. It is likely that nonassociative variables of the process need type (defined as labile, implicit responses occurring in the individual, i.e., conflict induced drive) may be needed to completely account for motivated thinking. S-R formulations represent a promising approach.—*W. J. Meyer.*

7618. Neisser, Ulric. (Brandeis U.) **The multiplicity of thought.** *Brit. J. Psychol.*, 1963, 54(1), 1-14.—Many writers have distinguished 2 types of mental processes. One kind of thinking is conscious, straightforward, predictable, and rather pedestrian; the other is confused, rich, productive of novelty, emotionally charged, and generally outside of consciousness. It is suggested that the latter arises from a multiplicity of processes going on together, while the former represents a single sequence among the crowd. These concepts are clarified by showing that sequence and multiplicity arise as alternative modes of organizing computer programs for pattern recognition. Even in the computer, multiple processing exhibits a superior ability to deal with novel or irregular input, while sequential processing appears less wasteful, and

better adapted to fully predictable situations. The properties that have been said to distinguish primary and secondary process, autistic and realistic thinking, creativity and constraint, insightful and rote activity, and the like, are shown to follow from the multiplicity of thought. Relevant experimental findings are discussed. (23 ref.)—*Journal abstract.*

7619. Pyron, H. Charles, & Sharp, Harry, Jr. **A quantitative study of reflective thinking and performance in problem-solving discussion.** *J. Commun.*, 1963, 13(1), 46-53.—This study tested the hypothesis that the "reflective thinking ability of a discussant whose performance is ranked 'high' will be significantly greater than the reflective thinking ability of a discussant whose performance is ranked 'low.'" Reflective thinking was measured by the Johnson Reflective Thinking Test. Ss in a public speaking course were ranked by the instructor on the basis of the contribution made to the discussion by the speaker. The Johnson test was then administered to the discussants ranked 1st and last in each group. Statistical comparison of test means for Ss ranked high vs. low by instructors was significant in the predicted direction.—*D. E. Meister.*

7620. Vinacke, W. Edgar. (U. Hawaii) **Motivation and thinking: A symposium.** *Psychol. Bull.*, 1962, 59(6), 449.—This brief note serves as an introduction to 4 papers originally presented at the 1961 Western Psychological Association meeting: W. E. Vinacke's The complexities of thinking (see 37: 7621); Irving Maltzman's Motivation and the direction of thinking (see 37: 7617) Ronald C. Johnson's Linguistic structure as related to concept formation and to concept content (see 37: 7626); and Ernest R. Hilgard's Impulsive versus realistic thinking: An examination of the distinction between primary and secondary processes in thought (see 37: 7616).—*W. J. Meyer.*

7621. Vinacke, W. Edgar. (U. Hawaii) **The complexities of thinking.** *Psychol. Bull.*, 1962, 59(6), 450-456.—Historically, the interaction of motivation and thinking has been included in many theories. It is only recently that efforts to specify the relevant variables in the laboratory have begun. Clearly the relation between thinking and motivation is complex, but recent research shows that these relationships may systematically be explored.—*W. J. Meyer.*

Problem Solving

7622. Kolers, Paul A., & Zink, Donald L. **Some aspects of problem solving: Sequential analysis of the detection of embedded patterns.** *USAF AMRL tech. docum. Rep.*, 1962, No. 62-148. iii, 14 p.—Performance on a forced-choice target detection task was examined in terms of the sequences of responses Ss made. In about 50% of all cases resulting in a correct detection, Ss made a specific error immediately before identifying the correct target. Practice on the task resulted in a general improvement in speed and number of correct detections, and also in a change in the proportional occurrence of certain errors. In addition, while the best 25% of the Ss detected more targets to criterion and did so more rapidly than the poorest 25%, the proportional occurrence of specific response patterns was approximately the same in the 2 groups for the targets that were correctly detected. Scaled similarity of the alternatives was an important

determiner of errors, while perceived orientation had no relation either to perceived similarity or to the response sequences. A mechanism is suggested for these sequential acts involving a decrease in probability of detecting specific kinds of forms following perception of another kind. (18 ref.)—*USAF AMRL*.

Concepts

7623. Bourne, Lyle E., Jr. (U. Utah) Long-term effects of misinformation feedback upon concept identification. *J. exp. Psychol.*, 1963, 65(2), 139-147.—The purposes of this study were to investigate the long-term effects of misinformative feedback (MF) upon performance in a concept identification problem (Task 1) and the transferability of optimal solution to a 2nd problem (Task 2). The results indicated that as amount of MF increased in Task 1, Ss made more errors and fewer Ss reached optimal solution. Transitory probability matching was observed. All Ss attained optimal solution to Task 2, at a rate, however, which was a function of Task 1 MF. There were no marked recency effects and little evidence that Ss attempted to respond with the category indicated by the feedback signal accompanying each stimulus on its last presentation.—*Journal abstract*.

7624. Feldman, Solomon E. (Indiana U.) Probabilistic hierarchies to ambiguous concept classes. *J. exp. Psychol.*, 1963, 65(3), 240-247.—In a test of a statistical model of visual recognition, 160 Ss learned to anticipate the nonsense syllable names of 4 types of stimulus displays, each of which included an outline figure and a word. Subsequent responses to differing cue combinations indicated that: (a) the probabilities of sampling various cues from among a larger set of cues and the probability of responses to cues that have been sampled are both functions of the relative and absolute frequencies of previous reinforcement, (b) stimulus elements are associated with patterns of cues rather than with the individual cues comprising the patterns, and (c) response dependencies only occur when repeated responses to the same type of stimulus are required.—*Journal abstract*.

7625. Foulkes, David, & Heaxt, Susan. (Lawrence Coll.) Concept attainment and self-concept. *Psychol. Rep.*, 1962, 11(2), 399-402.—100 undergraduates were given a concept learning task in which positive instances contained a reference to a personal attribute, and negative instances to its opposite. For 4 groups, relevant dimensions were intelligent-unintelligent, good looking-unattractive, dominant-submissive, and warm-cold, respectively. Concept attainment was not related to self-attribution along the relevant dimension nor to self-ideal correlation as determined by a modification of the Chicago Q sort, but was positively correlated with Scholastic Aptitude Test scores.—*B. J. House*.

7626. Johnson, Ronald C. (U. Hawaii) Linguistic structure as related to concept formation and to concept attainment. *Psychol. Bull.*, 1962, 59(6), 468-476.—“... we have examined two explanations of empirical data showing that concrete-perceptual concepts are learned to an adult level of understanding earlier than are abstract concepts. Data do not fully support a developmental explanation. A linguistic relativistic position is supported, but not proved to be correct.”—*W. J. Meyer*.

DECISION & INFORMATION THEORY

7627. Agnew, N., Pyke, S., & Pylyshyn, Z. (U. Saskatchewan, Canada) Information transfer in absolute judgment as a function of noxious stimulation and exposure time. *Percept. mot. Skills*, 1962, 15(3), 779-782.—In this study the effects of shock and exposure duration on consistency and accuracy of absolute judgments of distance were investigated. Long exposures led to significant increases in both consistency and accuracy of judgments, while shock had no effect on either performance measure. Heart rate increased significantly under both task and shock conditions.—*W. H. Guertin*.

7628. Bixenstine, V. Edwin; Potash, Herbert M., & Wilson, Kellogg V. (Kent State U.) Effects of level of cooperative choice by the other player on choices in a prisoner's dilemma game: Part I. *J. abnorm. soc. Psychol.*, 1963, 66(4), 308-313.—In a Prisoner's Dilemma type game, Ss (male and female students) were asked to make repeated choice between 2 alternatives, R and B, where R is presumably the cooperative and B the competitive choice. While believing that they were playing persons of the same sex, Ss actually played a simulated partner who, for ½ of the group, chose 83% random R and, for the other ½, 83% random B for 30 trials. Thereafter for 60 trials, the simulated partner chose according to a strategy of 83% matching, 17% mismatching the choices of S. The purpose of this procedure was to determine the effects of initial level of simulated cooperation on S's own level of cooperation. The results failed to demonstrate that the level of simulated cooperation employed functioned to determine choice by S. Ss had been stratified according to a test of character which failed to predict choice. However, a 2nd scoring formula employed on this test did significantly distinguish the amount of R choice emitted by S and deserves further examination.—*Journal abstract*.

7629. Brehm, Jack W., & Cohen, Arthur R. (Duke U.) Explorations in cognitive dissonance. New York: Wiley, 1962. xv, 334 p. \$7.95.—This book contains a comprehensive critical evaluation of the empirical evidence bearing on Festinger's theory of cognitive dissonance, a serious consideration of the methodological problems involved in testing the theory, and a discussion of its ambiguities. The authors emphasize the critical role of commitment and choice for the arousal of dissonance in the individual experiencing inconsistent cognitions and point out the ways in which this emphasis differentiates dissonance theory from other balance theories. They also report 13 of their unpublished studies—some of which extend the theory to primary motivation and volition; discuss the relation of the theory to conflict and decision theories; and discuss the implications of the theory for attitude change, personality dynamics, desegregation, and indoctrination processes.—*K. E. Davis*.

7630. Chambers, R. W., & Bartlett, N. R. (U. Arizona) A device for research in human information processing capacity. *Percept. mot. Skills*, 1962, 15(2), 343-350.—The device is a fully automated electronic system which permits examination of the following variables: probability of event occurrence, probabilities with respect to time, complexity

in terms of codebook size and in terms of information, contained in a signal, rate of flow of information, number of units of information presented in the same time unit, and comparison of unisensory versus bisensory information processing. To identify the device in future articles, the name Bisensory Unilateral Response Processor (BURP) was selected. A description of the physical appearance of the device as well as an indication of its method of operation is furnished.—*W. H. Guertin.*

7631. Fitts, Paul M., Peterson, James R., & Wolpe, Gerson. (U. Michigan) **Cognitive aspects of information processing: II. Adjustments to stimulus redundancy.** *J. exp. Psychol.*, 1963, 65(5), 423-432.—3 experiments are reported in which relative stimulus frequencies were varied in 9 choice tasks. The tasks involved naming numbers and pointing to lights. It was found that as redundancy increased average RTs to the frequent stimulus component decreased whereas RTs to less frequent components increased, the differences being a linear function of redundancy. These effects were greater for the less compatible (vocal) task. Ss used the frequent response more often and the infrequent response less often than appropriate in responding to redundant sequences. These results are in agreement with predictions from a stimulus sampling and sequential decision model in which it is assumed that RTs and errors are a function of prior probabilities and the payoff matrix for correct and wrong, slow and fast responses, as well as a function of stimulus discriminability. (20 ref.)—*Journal abstract.*

7632. Kintsch, W. (U. Missouri) **A response time model for choice behavior.** *Psychometrika*, 1963, 28(1), 27-32.—An S in a 2-choice situation characteristically makes several observing responses before performing the final choice. This behavior can be described by means of a random walk model. The present paper explores some possibilities as to how this model can be extended to include choice time. The assumption is made that the duration of each step in the random walk is a random variable which is exponentially distributed. With this assumption, one can predict the probability distributions of the choice times as well as the moments of these distributions.—*Journal abstract.*

7633. Rettig, Salomon, & Rawson, Harve E. (Ohio State U.) **The risk hypothesis in predictive judgments of unethical behavior.** *J. abnorm. soc. Psychol.*, 1963, 66(3), 243-248.—The study further explores the "ethical risk" hypothesis, which postulates that unethical behavior varies as a function of perceived risk. 6 determinants are tested: expectancy of gain (E_{gn}) and reinforcement value of gain (RV_{gn}), expectancy of censure (E_{cens}) and reinforcement value of censure (RV_{cens}), severity of offense, and reference group. It is hypothesized that E_{cens} and RV_{cens} are significant determinants which account for more variance than the remaining ones. 64 items, each portraying a student in conflict about taking money illegally, were judged by 136 Ss as to the probability of taking the money. Except for the reference group, all main effects were significant. RV_{cens} explained more variance than any other source. Hence, ethical risk should be interpreted as RV_{cens} rather than E_{cens} . (15 ref.)—*Journal abstract.*

PHYSIOLOGICAL PSYCHOLOGY

7634. Crampton, George H. (USA Medical Research Lab., Ft. Knox, Ky.) **Effects of visual experience on vestibular nystagmus habituation in the cat.** *Acta oto-laryngol., Stockholm*, 1962, 55(5-6), 516-526.—Separate groups of 10 cats each were exposed to 3 specific varieties of visual experience during a series of angular accelerations, and then compared on a test trial in darkness with 3 control groups of 10 cats each that had received the same acceleration experience but without concomitant visual stimulation. Animals were maintained in a high state of arousal with d-amphetamine. Electro-oculographic recordings showed that the nystagmic response decrement was prominent for all 6 groups and that the visual experience neither hastened nor slowed the habituation process.—*Journal abstract.*

7635. Dolowitz, D. A., Forssman, B., & Henriksson, N. G. (U. Lund, Sweden) **Studies of cristospinal reflexes (laterotorsion): III. Patterns of cristooocular and cristospinal reflexes in clinical oto-neurology.** *Acta oto-laryngol., Stockholm*, 1962, 55(5-6), 496-504.—A comparative study of caloric nystagmus, vertigo, and laterotorsion was made in normal Ss and in patients with peripheral labyrinthine lesions, Ménière's disease, meningo-encephalitis, and brain tumors. Variations were found in the patterns of behavior in the various lesions. As examples: in Ménière's disease, nystagmus and vertigo decreased in their responses to caloric stimulation but laterotorsion remained normal, while meningo-encephalitis showed a normal response of nystagmus but a decrease in laterotorsion. This induced us to consider the hypothesis that cristo-ocular and cristospinal reflexes have different mechanisms modulating them despite the common origin of their stimulus. The possibility of different receptor cells and neurons for the cristooocular and the cristospinal reflexes was also discussed. A better resistance of the units involved in the vestibulospinal reflex would then also explain the normal caloric laterotorsion in Ménière cases.—*Journal abstract.*

7636. Hamilton, C. L. (VA Hosp., Coatesville, Pa.) **Interactions of food intake and temperature regulation in the rat.** *J. comp. physiol. Psychol.*, 1963, 56(3), 476-488.—A series of studies is presented demonstrating some of the interrelationships between food intake, body temperature, and hypothalamus. These include the effects of ambient temperature, diet, activity, and hypothalamic lesions on the energy balance of the rat. Finally, a theory of the relationships among the variables of thermal balance and food intake is presented. (20 ref.)—*Journal abstract.*

7637. Hertzman, Alrick B., & Flath, Franz. (St. Louis U. School Medicine) **Continuous simultaneous registration of sweating and blood flow in a small skin area.** *USAF AMRL tech. docum. Rep.*, 1963, No. 63-16, iii, 9 p.—The report presents a capsular method for recording evaporation from a small skin area (5, 10, or more cm^2), continuously, quantitatively, and with a very fast response time as brief as 0.15 sec. Water of diffusion at rates of 0.005 $mgm/cm^2/min$ or high sweating rates were measured with equal ease. The method is combined with photoelectric recording of the skin pulses to provide precise

temporal relations of cutaneous vascular events and of sweating in the same segment of skin. Cycles of sweating in forearm skin occurred synchronously with digital vasoconstrictions but were not accompanied by changes in the rate of blood flow in forearm skin, although venoconstriction in the forearm often took place with an increase in sweating. The observation contradicted the concept of bradykinin as an important vasodilator in accounting for cutaneous vasodilatation during heat stress. (18 ref.)—*USAF AMRL*.

7638. Honigfeld, G. (VA Central Neuropsychiatric Research Lab., Perry Point, Md.) "Neurological efficiency," perception, and personality. *Percept. mot. Skills*, 1962, 15(2), 531-553.—The most significant over-all conclusion from this investigation seems to be that to attempt to ascribe individual differences in perception, personality, and intelligence to a common construct of central "neurological efficiency" is to oversimplify a complex set of observations. This is consistent with Becker's (1960) conclusions from a similar study which suggest that there are several kinds of inhibitory cortical processes. It is probably not an oversimplification to assert that in their enthusiasm to obey the "law of parsimony," psychologists are often guilty of oversimplification. (91 item bibliogr.)—*W. H. Guertin*.

7639. Lindvall, Hans F. (Serafimerlasarettet, Stockholm) Specific and non-specific traits of habituation in nystagmus responses to caloric stimuli. *Acta oto-laryngol., Stockholm*, 1962, 55(4), 315-325.—In human Ss, the electronystagmographically recorded responses to repeated monolabyrinthine caloric stimuli are shown to be influenced by specific (discriminative) processes as well as by alerting (arousal). The response decline to repeated stimuli is more pronounced with identical stimuli than with stimuli that are of equal average intensity but differ in regard to their quality (cold-warm) and/or localization (right-left labyrinth). This is not due to variations in the general activation level (as reflected in the electrical skin resistance and in the electroencephalogram). Thus, the habituation process seems to be specifically linked to the direction of the cupular deflexion in the individual labyrinth, or to conscious discrimination between changes in the experimental situation as a whole.—*Journal abstract*.

7640. Lindvall, Hans F. (Serafimerlasarettet, Stockholm, Sweden) Mechanisms of motion sickness as reflected in the vertigo and nystagmus responses to repeated caloric stimuli. *Acta oto-laryngol., Stockholm*, 1962, 55(5-6), 527-536.—In the routine caloric test a group of seamen, who stated that they practically never had been motion sick, had vertigo and nystagmus responses of lower average intensity than those of a group of seamen who asserted that they were somewhat troubled by a tendency to become motion sick. Those Ss who had distinct vertigo responses and "normal" nystagmus responses at the routine test were selected for a study of the responses to repeated identical monolabyrinthine caloric stimulations. In both groups there was habituation in the vertigo and in the nystagmus responses, and the habituation curves were approximately parallel. The vestibular mechanisms which are known to be of importance in the development and persistence of motion sickness are discussed. It is concluded that the group difference observed in the

routine caloric test is probably due to a difference in the sensitivity of the labyrinthine sense organs.—*Journal abstract*.

NEUROANATOMY & PHYSIOLOGY

LESIONS & BEHAVIOR

7641. Altman, Joseph. (Massachusetts Inst. Technology) Diurnal activity rhythm of rats with lesions of superior colliculus and visual cortex. *Amer. J. Physiol.*, 1962, 202(6), 1205-1207.—Both normal rats and rats with bilateral lesions in the superior colliculus or striate cortex showed higher rates of activity at night than during the day, but the operated animals showed considerably less difference.—*D. R. Peryam*.

7642. Altman, Joseph. (Massachusetts Inst. Technology) Effects of lesions in central nervous visual structures on light aversion of rats. *Amer. J. Physiol.*, 1962, 202(6), 1208-1210.—Bilateral lesions in the superior colliculus, lateral geniculate body, or striate cortex of rats caused a reduction in the normal aversion to crossing into the bright alleys of a test apparatus. Increased locomotor activity occurred in all 3 operated groups. The reduction in light aversion seemed to depend upon the relative size of the lesion rather than the structure destroyed.—*D. R. Peryam*.

7643. Bureš, J., & Burešová, O. (Czechoslovak Acad. Sciences, Prague) Cortical spreading depression as a memory disturbing factor. *J. comp. physiol. Psychol.*, 1963, 56(2), 268-272.—The memory disturbing effect of spreading depression was studied in rats with 2 types of avoidance reaction. Electroshock applied 1 min. or 2 hr. after reversal of a left-right discrimination impaired the newly acquired memory traces more than spreading depression elicited with the same delays. The passive avoidance reaction was nearly completely suppressed by electroshock and unaffected by ether anesthesia applied immediately after learning; spreading depression was slightly less effective than electroshock. The memory disturbing procedures applied 2 hr. after learning still evoked a severe impairment of retention. Their effectiveness considerably declined when applied 6 hr. after learning.—*Journal abstract*.

7644. Byck, Robert, & Dirlik, Paul. (National Inst. Mental Health, St. Elizabeths Hosp., Washington, D. C.) Reversible section of the brain by a wall of cold. *Science*, 1963, 139(Whole No. 3560), 1216-1218.—A fork made up of hollow tubing may be chronically implanted in the cat's brain. When cooling fluid is pumped through this fork a reversible plane lesion is formed. This technique permits analysis of functional parts of the nervous system in unanesthetized animals.—*Journal abstract*.

7645. Ehrlich, Annette. (Northwestern U. School Medicine) Effects of tegmental lesions on motivated behavior in rats. *J. comp. physiol. Psychol.*, 1963, 56(2), 390-396.—In bar pressing tests with either food or water as the motivator, tegmental operatees were deficient by comparison with normals ($p < .002$ for tests using a continuous-reinforcement schedule and $p < .002$ for tests using increasing ratios of reinforcement). However, in a straight alley, with food as the motivator, tegmental operatees ran faster than normals ($p < .02$); and, in situations in which

food and water were freely available, significant differences were not found between tegmental operatees and normals. These data suggest that the amount of work involved in securing food may be a crucial variable. Operated controls with fornix-hippocampal commissure lesions performed as well as normals on some tasks and significantly better than normals and tegmental operatees on other tasks.—*Journal abstract.*

7646. Gross, Charles G. (Massachusetts Inst. Technology) **Locomotor activity following lateral frontal lesions in Rhesus monkeys.** *J. comp. Physiol. Psychol.*, 1963, 56(2), 232-236.—Effects of bilateral frontal lesions on locomotor activity were studied under various stimulus conditions. 8 monkeys were tested after, and 13 monkeys before and after, partial ablation of lateral frontal granular cortex or as unoperated controls. Ss with lesions that included sulcus principalis were hyperreactive to light. Their locomotor activity in light as well as darkness was more enhanced by relatively familiar auditory stimuli, and more depressed by relatively novel stimuli than that of unoperated Ss, or of Ss with lateral frontal lesions which spared sulcus principalis.—*Journal abstract.*

7647. Horvath, Fred E. (U. Michigan) **Effects of basolateral amygdectomy on three types of avoidance behavior in cats.** *J. comp. Physiol. Psychol.*, 1963, 56(2), 380-389.—The performance of lesioned cats was compared with that of sham-operated and nonoperated control animals. It was found that basolateral amygdaloid lesions produced a severe deficit in acquisition ($p < .001$) and retention of a complex active avoidance response ($p < .001$) and significant ($p < .05$) but smaller deficits on performance of a passive avoidance response and acquisition of a simple active avoidance response. These results were interpreted as indicating that the basolateral amygdaloid nuclei subserve an integrative function in the acquisition of avoidance responses in problem-solving situations of a high order of complexity. These nuclei are important for the retention of such a response only if the response is not overlearned. (24 ref.)—*Journal abstract.*

7648. Kimble, Daniel P. (U. Michigan) **The effects of bilateral hippocampal lesions in rats.** *J. comp. Physiol. Psychol.*, 1963, 56(2), 273-283.—The behavior of 10 rats with bilateral hippocampal lesions was compared with that of 11 cortically damaged and 12 unoperated control Ss in 4 experimental situations. Compared to other groups, hippocampal Ss (a) entered more squares of an open field ($p < .01$); (b) took more trials to reach criterion on a successive brightness discrimination ($p < .01$), but showed no deficit on a simultaneous discrimination using the same stimuli; and (c) made more errors on both of 2 Hebb-Williams mazes ($p < .01$). Both hippocampal and cortically damaged Ss showed less "passive avoidance" following shock ($p < .05$). Conclusions are: (a) either "short-term memory" deficit nor "emotional disruption" hypothesis adequately explains these data, and (b) monolithic hypotheses concerning behavioral significance of the hippocampus are likely to be oversimplifications. (17 ref.)—*Journal abstract.*

7649. Meyer, Patricia Morgan. (Ohio State U.) **Analysis of visual behavior in cats with extensive neocortical ablations.** *J. comp. Physiol. Psychol.*, 1963, 56(2), 397-401.—8 normal and 7 neocorticate

cats served as Ss. No significant differences between the normal and neocorticate animals were observed in a simple light-avoidance conditioning situation. A pattern discrimination problem indicated that the normal group was significantly superior to the neocorticate group. Visual behavior of cats with extensive neocortical ablations including visual areas I and II was assessed further with Gibson's visual cliff procedure. Again, operated cats performed like normal animals on initial choices and after several trials. However, the nature of this response is still a question for further assessment and experimentation.—*Journal abstract.*

7650. Parriss, J. R. (University Coll., London, England) **Retention of shape discrimination after regeneration of the optic nerves in the toad.** *Quart. J. exp. Psychol.*, 1963, 15(1), 22-26.—Using a method of successive discrimination previously described by the author 8 toads (*Bufo bufo*) were trained to discriminate 1st between horizontal and vertical rectangles, each 3.5×7.5 cm., and 2nd between horizontal and vertical rectangles each 5.0×7.5 cm. Immediately after training, both optic nerves were severed in 4 animals and allowed to regenerate. After a period of 10 weeks without training both the operated and nonoperated animals retained the capacity to discriminate both large and small rectangles at a level either not significantly different from training or significantly better than training.—*Journal abstract.*

7651. Rüdiger, W., & Fifková, E. (Czechoslovak Acad. Sciences, Prague) **Operant behavior and subcortical drive during spreading depression.** *J. comp. Physiol. Psychol.*, 1963, 56(2), 375-379.—The influence of unilateral cortical spreading depression (SD) on lever pressing activity for electrical self-stimulation was studied in rats with chronically implanted bipolar electrodes in the lateral hypothalamic area. It could be shown that ipsilateral (with respect to side of hypothalamic stimulation) SD reduces lever pressing rates significantly more than contralateral SD. The same lateralization effect of this cortico-hypothalamic influence occurs when interference thresholds of hypothalamic stimulations during unilateral SD are compared.—*Journal abstract.*

7652. Teitelbaum, Herman, & Milner, Peter. (McGill U.) **Activity changes following partial hippocampal lesions in rats.** *J. comp. Physiol. Psychol.*, 1963, 56(2), 284-289.—Rats with hippocampal lesions were found to be more active than normal and brain damaged controls. This hyperactivity was manifested in a greater number of light-beam interruptions in an activity cage and in increased running speed in an unbaited T maze. When placed in a situation involving inhibition of movement, Ss with hippocampal lesions were unable to inhibit movement to avoid shock. (15 ref.)—*Journal abstract.*

7653. Stamm, J. S., & Knight, Marcia. (Queens Coll., Flushing, N. Y.) **Learning of visual tasks by monkeys with epileptogenic implants in temporal cortex.** *J. comp. Physiol. Psychol.*, 1963, 56(2), 254-260.—Alumina cream was implanted bilaterally in monkeys, either on anterior medial temporal cortex (AMT) or on inferotemporal cortex (IT). Normal controls and 2 epileptic groups were tested after onset of epileptic discharges. IT group was greatly impaired on the 1st 2 of 8 simultaneous visual discriminations and on 1st stimulus reversal, but overcame

their deficits on succeeding discrimination and reversal problems. AMT group was only slightly poorer than normals on first discrimination and reversal tasks but showed little improvement in acquisition of succeeding problems. It is concluded that IT cortex is implicated in searching behavior on visual tasks, whereas AMT cortex (amygdaloid structures) is implicated in the solution of tasks which require utilization of previous experiences.—*Journal abstract.*

7654. Thompson, Robert. (U. California Medical Cent., Los Angeles) **Thalamic structures critical for retention of an avoidance conditioned response in rats.** *J. comp. physiol. Psychol.*, 1963, 56(2), 261-267.—This study was designed to determine by the lesion method which thalamic nuclei are critical in the maintenance of an avoidance conditioned response. After being trained to make a jumping response to the onset of a tone or light, 62 rats were subjected to bilateral electrolytic lesions in various parts of the thalamus. Retention scores revealed that damage to either the diffuse thalamic nuclei or the dorsomedial nucleus significantly impaired postoperative performance of both visual and auditory habits. Similar effects were obtained following anterior cortical ablation. Lesions confined to the medial prefrontal diencephalon (nucleus posterior thalami) interfered with the visual task only. (24 ref.)—*Journal abstract.*

7655. Warren, J. M., Grant, R., Hara, K., Leary, R. W. (Pennsylvania State U.) **Impaired learning by monkeys with unilateral lesions in association cortex.** *J. comp. physiol. Psychol.*, 1963, 56(2), 241-253.—Comparison of 10 experimentally naive rhesus monkeys with unilateral lesions in association cortex with 4 normal controls on 10 learning experiments during 20 mo. of postoperative testing indicated that unilateral preparations: (a) were significantly retarded in initial learning, but not in final level of proficiency, on a series of discriminations between objects differing in external contour; (b) formed oddity and conditional discrimination learning sets and learned a conditional oddity problem as rapidly as controls; (c) made significantly more errors on 6 different sets of pattern discrimination problems; (d) made an increased number of errors on object discrimination and reversal problems when intercurrently tested on pattern discrimination tasks, although controls were unaffected. (e) Ss with frontal or temporal lesions were hyperactive or "tame," respectively. (25 ref.)—*Journal abstract.*

7656. Weiskrantz, Lawrence, & Cowey, Alan. (U. Cambridge) **Striate cortex lesions and visual acuity of the rhesus monkey.** *J. comp. physiol. Psychol.*, 1963, 56(2), 225-231.—Visual acuity was measured pre- and postoperatively in monkeys given resections of striate or inferotemporal cortex. Striate Ss showed decreases in acuity, the severity of which corresponded reasonably well with the completeness and location of the lesions. Temporal Ss showed no decrease. The drop in acuity shown by the striate Ss was less than would be predicted if the lesion produced an absolute scotoma and if the relation between foveal and parafoveal acuity is the same in monkey as in man. (24 ref.)—*Journal abstract.*

7657. Wilson, William A., Jr., Oscar, Marlene, & Gleitman, Henry. (Bryn Mawr Coll.) **The effect of frontal lesions in monkeys upon widely-spaced delayed-response trials.** *J. comp. physiol. Psychol.*, 1963, 56(2), 237-240.—Monkeys that previously had been highly trained on delayed response (DR) were tested before and after frontal operations on 5-sec., direct-method DR trials given at the rate of 1 per day. Normal animals performed essentially perfectly; frontal operatees showed the classical deficit. Ss of both groups tended to adopt a position on the correct side of the cage immediately after baiting. Explanations of frontal DR deficit as due to (a) an unusual difficulty in overcoming the strongest response tendency present, (b) an extreme sensitivity to the deleterious effect of massing of trials, or (c) an inability to adopt a position which can serve to "bridge the delay gap," would all appear to be unable to assimilate these data.—*Journal abstract.*

BRAIN STIMULATION

Central Stimulation

7658. Chocholova, L. (Inst. Physiology, Czechoslovak Acad. Science, Prague) **The role of the cerebral cortex in audiogenic seizures in the rat.** *Physiol. bohemoslov.*, 1962, 11(5), 452-457.—A study was made of the effect of functional elimination of the cerebral cortex by spreading cortical depression (induced by the application of 25% KCl solution to the cerebral cortex) on the elicitation and symptomatology of audiogenic epileptic seizures in the rat. The following conclusions were reached: (a) An active state of the cerebral cortex facilitates the elicitation of seizures in susceptible rats and increases their severity. (b) The elimination of the cerebral cortex lowers the inducibility of seizures relatively less in highly susceptible rats than in less susceptible animals, but does not inhibit them completely in either group. (c) The reaction of non-susceptible rats to an epileptogenic stimulus does not change after spreading depression. (d) All the main types of seizure are observed after functional eliminating of the cortex, including seizures with an inhibition interval.—*Journal summary.*

7659. Fleming, Donovan E. (U. Utah Coll. Medicine) **Response arrest associated with the corticifugal projection of chemically induced local seizure discharge.** *EEG clin. Neurophysiol.*, 1963, 15, 84-90.—A learned flexion response in 9 cats was utilized to assess the effect of the downstream projection of local seizure discharge from the somatosensory auditory and visual areas on performance. The cats were trained to flex the right hindleg to a 6 sec. click conditioning stimulus partially reinforced with a shock to the same leg. Subcortical (left mesencephalic reticular formation, left centre median, right zona incerta, and right hippocampus) and cortical electrodes were used. Acetylcholine chloride was used to induce seizure discharges. Those discharges associated with the corticifugal projection of impulses to the subcortical reticular system produced a behavioral arrest in which the flexion CR was abolished. In the absence of corticifugal projection of impulses the flexion response was not affected. Conditioned respiratory responses were unaffected by the projection of seizure discharge to the subcortex.—*J. C. Johnson.*

7660. Grossman, S. P. (Yale U.) **Direct adrenergic and cholinergic stimulation of hypothalamic mechanisms.** *Amer. J. Physiol.*, 1962, 202(5), 872-882.—Double-walled cannulas were im-

planted stereotaxically in the hypothalamus of 36 rats, allowing repeated stimulation of the same site in an area between the fornix and mamillo-thalamic tract, lateral and dorsal to the ventromedial nuclei. Minute amounts of adrenergic substances induced vigorous and prolonged eating, and comparable amounts of cholinergic substances induced vigorous and prolonged drinking in satiated rats. Adrenergic stimulation increased food intake of hungry rats but decreased water intake of thirsty rats. Cholinergic stimulation increased water intake but decreased food intake.—*D. R. Peryam.*

7661. Justesen, R., Sharp, Joseph C., & Porter, Paul B. (U. Utah) Self-stimulation of the caudate nucleus by instrumentally naive cats. *J. comp. physiol. Psychol.*, 1963, 56(2), 371-374.—Es previously reporting electrical self-stimulation of the brain (ESB) by cats have invariably pretrained their Ss on food-reinforced schedules. To avoid possible confounding of ESB by food-reinforced habits, we attempted and were able to produce ESB of the caudate nucleus (via chronic, indwelling electrodes) in hitherto untrained cats. However, even though continuous schedules of ($\frac{1}{2}$ -sec. trans at 50 cps) pulse-pair stimulation reliably increased responding of 7 Ss above operant levels, there was: (a) marked uniformity of ESB rate (i.e., typical acquisition and extinction "curves" were not observed); (b) no discernible resistance to extinction; and (c) very high correlations among operant, reinforced, and extinction measures. Rather than "rewarding," the caudate stimulus appeared to produce generalized motor activation and, hence, a nonspecific acceleration of the operant.—*Journal abstract.*

Electroshock

ELECTROENCEPHALOGRAPHY

7662. Lairy, G. C. Le concept de normalité en électroencéphalographie. [The concept of normality in electroencephalography.] *J. Psychol. norm. pathol.*, 1961, 4, 445-459.—The author discusses the inherent ambiguities of the concept of normality. In clinical usage normal may mean absence of disturbance, correspondence with an ideal type, or near the mean of a statistical distribution. With respect to EEG, normal may mean a record without morphological abnormality or it may mean the tracing obtained from a healthy S. Criteria of both are discussed. (24 ref.)—*M. L. Simmel.*

7663. Mikhalevskaia, M. B. (Moscow U., USSR) O zavisimosti fazicheskikh i tonicheskikh orientirovochnykh reaktsii ot uslovii afferentatsii. [Phasic and tonic orienting reactions as functions of stimulation.] *Dokl. Akad. Pedag. Nauk RSFSR*, 1962, No. 3, 103-106.—10 Ss had their EEG recorded under conditions of opening their eyes in complete darkness, and of fixating a weak red light. The changes which were noticed warrant the conclusion that "the activation of the orienting reflex manifests itself in the human EEG in a depression of the alpha waves." The amount of activation depends upon the conditions of the visual stimulation.—*A. Cuk.*

7664. Surwillo, Walter W. (National Inst. Health, Bethesda, Md.) The relation of simple response time to brain-wave frequency and the effects of age. *EEG clin. Neurophysiol.*, 1963, 15, 105-114.—

100 Males ranging in age from 28-99 yr. were examined to verify a previously reported relationship of brain wave cycle to reaction time. Age as a variable in the EEG reaction time relationship was also investigated. Correlation of average period of the EEG between onset of stimulus and response with reaction time was .72. Age was not a factor in this relationship, but a highly significant positive correlation was found between age and average brain wave period. The data was viewed as supportive of the hypothesis that the brain-wave cycle is the basic unit of time in terms of which a response is programed by the CNS. *L. C. Johnson.*

7665. Zubek, John P., & Welch, G. (U. Manitoba, Winnipeg, Canada) Electroencephalographic changes after prolonged sensory and perceptual deprivation. *Science*, 1963, 139(Whole No. 3560), 1209-1210.—7 days' exposure to unpatterned light and white noise produced a significantly greater decrease in occipital lobe frequencies than did the same period of darkness and silence. This differential effect may be related to the greater behavioral impairments which seem to occur after prolonged exposure to diffuse light and noise.—*Journal abstract.*

EVOKED POTENTIALS

7666. Goldring, Sidney; Anthony, Lyndon U., Stohr, Paul E., & O'Leary, James L. (Washington U. School Medicine, St. Louis, Mo.) "Caudate-induced" cortical potentials: Comparison between monkey and cat. *Science*, 1963, 139(Whole No. 3556), 772.—The segment of the internal capsule which carries axons relating to the sensorimotor cortex does not closely adjoin the caudate in the monkey as it does in the cat. Therefore, in seeking evidence for caudate-induced cortical responses, activation of the adjoining internal capsule by stimulus spread can be avoided. In the monkey, caudate stimulation never produced cortical responses, and only capsule stimulation evoked the potential complex which has been attributed to caudate stimulation in the cat.—*Journal abstract.*

7667. Ogawa, Tetsuro. (U. Sydney, Australia) Midbrain reticular influences upon single neurons in lateral geniculate nucleus. *Science*, 1963, 139(Whole No. 3552), 343-344.—The effect of electrical stimulation of the midbrain reticular formation upon patterns of discharge of single lateral geniculate neurons was studied. Data were processed by means of a 256-channel scaler analyzer. The rate of spontaneous discharge of geniculate neurons was raised by electrical stimulation of the reticular formation and their ability to respond to intermittent light was enhanced.—*Journal abstract.*

SENSORY PHYSIOLOGY

7668. Bianconi, R., & Van Der Meulen, J. P. (Nobel Inst., Stockholm, Sweden) The response to vibration of mammalian muscle spindles. *J. Neurophysiol.*, 1963, 26(1), 177-190.—Spindle end-organ responses were recorded in cat gastrocnemius and soleus muscles while applying vibration or single pulls to the muscles. End organs which responded to vibratory stimulation generally had afferents with high conduction velocities. End organs with high conduction velocity afferents have a high degree of slowing of discharge rate, when the static phase is

compared with the dynamic phase on application of a rapid stretch that is then maintained. Possible anatomical correlatives of these findings are discussed.—G. Westheimer.

7669. Dickens, W. M., & Winkelmann, R. K., & Mulder, D. W. [Mayo Clinic & Mayo Found., Rochester, Minn.] Cholinesterase demonstration of dermal nerve endings in patients with impaired sensation. *Neurology*, 1963, 13(2), 91-100.—A histochemical investigation of cholinesterase enzymes in cutaneous nerve endings in 41 patients with sensory loss including palms and soles. The study included some patients whose sensory loss was of central origin and a control group of 37 Ss with normal sensation. The authors found that the number of Meissner corpuscles reacting to cholinesterase is a measure of peripheral nerve function. Cholinesterase reactivity in these corpuscles was absent in many patients with severe peripheral neural lesions but was found to be uniformly present in patients with lesions of the central nervous system. Using only small samples of skin, the authors found a correlation between decrease in numbers of Meissner corpuscles and advancing age.—R. Gunter.

7670. Huizinga, Eelco. (Groningen, Netherlands) On the microphonic effect of the crista. *Acta oto-laryngol.*, Stockholm, 1962, 55(4), 283-291.—The microphonics of the cochlea and of the crista are important for 3 reasons. (a) They demonstrate that by the stimulation with sound the various parts of the labyrinth vibrate. (b) By the parallelism between the voltage of the microphonics and the excitability of the organ of Corti and the crista. (c) They can give a better insight into the problem of transformation of the mechanical energy into electric energy by the inner ear. With regard to (c), there is a discussion of the hair hypothesis of de Vries. Kuiper demonstrated that this hypothesis is not right, as the facts cannot be explained by the pulling at the hairs. But 2 important facts remain and require explanation: the double frequency of the lateral line organ in the fish and the superposition effect. This phenomenon in the pigeon is discussed. It occurs when a low and a high frequency component are presented together to the ear.—Journal abstract.

7671. Jacobs, Gerald H., Jones, Arthur E., & De Valois, Russell L. (Indiana U.) Electroretinogram of the squirrel monkey. *J. comp. physiol. Psychol.*, 1963, 56(2), 405-409.—Electroretinograms (ERG) were recorded from 8 squirrel monkeys in response to single light pulses and flickering monochromatic light. Spectral sensitivity curves were obtained from both stimulus conditions. It was found that: (a) the waveform of the ERG exhibits many of the characteristics of the human ERG including x-waves; (b) there is clear evidence for differential scotopic-photopic function as found in the form of a Purkinje shift; (c) the scotopic function has a form similar to that of the human scotopic function with the expected ERG elevation at the short wave length end; (d) the photopic function, although having a peak sensitivity similar to that of the normal human photopic ERG, is much narrower with a sharp drop on both the short and long wave length ends of the spectrum.—Journal abstract.

7672. Kelemen, George. (Harvard Medical School) The 4000-dip: Anatomic considerations.

Acta oto-laryngol., Stockholm, 1962, 55(4), 365-376.—In a number of sectional series of temporal bones of malformed fetuses and newborn, the enchondral layer of the cochlear capsule was found to perforate, in a broad stream, the periosteal layer and to meet beyond the latter the so-called cartilage (chondral) bar. This 3rd interruption of the capsular layers—the 1st and 2nd being the internal acoustic meatus and the cochlear aqueduct—is located in the basal cochlear turn corresponding to the 4000 dip of the audiometric curve. Lack of shielding by the periosteal layer, combined with the disturbance of the enchondral layer caused by the abrupt change of direction, may create here an area of diminished protection for the underlying membranous parts. This interpretation, based on observations in the osseous capsule, is offered as a counterpart to the explanatory attempts regarding the 4000-dip, which consider happenings in the membranous portions exclusively. Investigation of this "enchondral outflow" in normals of different ages is desirable.—Journal abstract.

7673. Money, Kenneth E., & Scott, John W. (U. Toronto, Canada) Functions of separate sensory receptors of nonauditory labyrinth of the cat. *Amer. J. Physiol.*, 1962, 202(6), 1211-1220.—Plugging of individual semicircular canals completely blocked receptivity without influencing functions of other vestibular receptors. Cats with all 6 canals plugged lost all sensitivity to angular acceleration, but retained normal responses to linear acceleration. Results indicated that vertical canals initiate corrections for fast, and otoliths for slow, angular displacements about horizontal axes. It was also concluded that both horizontal canals contribute equally to reception of angular acceleration in both directions.—D. R. Peryam.

7674. Perlman, H. B., & Kimura, R. (U. Chicago) Cochlear blood flow in acoustic trauma. *Acta oto-laryngol.*, Stockholm, 1962, 54(2), 99-110.—Some normal values of cochlear blood flow rate, cochlear function (microphonic response to 277 cycles at 90 db.), carotid pulse pressure, and heart rate are presented along with changes due to excessive acoustic stimulation. The relation of cochlear blood flow to the oxygen demands of the cochlea is considered.—Journal abstract.

7675. Ruben, R. J., Hudson, W., & Chiong, A. (Johns Hopkins Hosp., Baltimore, Md.) Anatomical and physiological effects of chronic section of the eighth nerve in cat. *Acta oto-laryngol.*, Stockholm, 1962, 55(5-6), 473-484.—Section of the 8th nerve caused a degeneration of the unmyelinated fibers in the tunnel of Corti followed by loss of the ganglion cells in the modiolus and degeneration of the 8th nerve. 2 days after section of the 8th nerve the N_2 was found to disappear. 3 days after section of the eighth nerve the N_1 was found to disappear. After the N_1 and N_2 disappeared a new neural like potential called the W phenomenon was observed. The degeneration of the unmyelinated fibers was associated with the disappearance of the N_1 and N_2 .—Journal abstract.

7676. Simmons, F. Blair. (Stanford U.) Simultaneous transtympanic and electrophysiological indices of the acoustic reflex activity in the cat. *Acta oto-laryngol.*, Stockholm, 1962, 55(4), 309-314.—The middle ear muscle contractions of the awake

cat were monitored simultaneously by changes in cochlear microphonic response and changes in the output of a microphone sealed, along with a carrier-tone source, in the animal's ear canal. A comparison of the 2 methods showed the cochlear microphonic attenuation caused by muscle contraction to be more sensitive, but the difference was often only 10-15 db, for stimulus/carrier frequencies between about 1.2 and 2.5 kc. This observation is taken as evidence that the difference in sensitivity of the acoustic reflex of man and cat is not primarily due to differences in the sensitivity of the measurement method employed.—*Journal abstract.*

7677. Weiss, Howard S., Mundie, Joseph R., Jr., Cashin, John L., & Shinabarger, Edward W. (Aerospace Medical Research Lab., Wright-Patterson AFB, O.) The normal human intra-aural muscle reflex in response to sound. *Acta otolaryngol., Stockholm*, 1962, 55(5-6), 505-515.—The particular modification of the method of tympanometry as it is employed in our laboratory has proven to be a useful tool in the investigation of the normal human intra-aural muscle reflex. Some of the signal-response relationships of this reflex have been investigated and discussed. Evidence was presented which supports the thesis that both the stapedius and tensor tympany muscles in the human respond to sound stimuli. The suggestion is made that this technique lends itself to increasing the accuracy of preoperative diagnosis of some forms of conductive hearing loss.—*Journal abstract.*

7678. Wersäll, Jan, & Hawkins, Joseph E., Jr. (Karolinska Inst., Stockholm, Sweden) The vestibular sensory epithelia in the cat labyrinth and their reactions in chronic streptomycin intoxication. *Acta oto-laryngol., Stockholm*, 1962, 64(1), 1-23.—The effect of streptomycin on the sensory epithelia of labyrinth in cats was studied by means of electronystagmography, light microscopy, phase contrast microscopy, and electron microscopy. Severe damage was noted for all treated animals, but differential sensitivity for different types of hair cells was observed and attributed to differences in function and metabolic activity. It is suggested that streptomycin is secreted through the secretory cells in the cristae and has a local effect on the sensory epithelia. There is a good correlation between disturbance of the equilibration mechanism and damage in the epithelia of the peripheral sensory apparatus, suggesting that the effect of streptomycin in cats is mainly if not exclusively peripheral.—*M. Loeb.*

7679. Zwislocki, J., & Feldman, A. S. (Syracuse U.) Postmortem acoustic impedance of human ears. *J. Acoust. Soc. Amer.*, 1963, 35(1), 104-107.—By means of a portable acoustic bridge, it is possible to measure the acoustic impedance at the eardrum of fresh human cadavers. Comparison with the acoustic impedance determined by the same method and with the same instrumentation on live Ss shows that the impedance increases considerably after death. Consequently, results obtained on cadaver ears cannot be applied directly to the middle-ear function during life.—*A. M. Small, Jr.*

ENDOCRINE, BIOCHEMICAL, & CIRCULATORY EFFECTS

7680. Adams, Thomas. (U. Washington School Medicine, Seattle) Hypothalamic temperature in

the cat during feeding and sleep. *Science*, 1963, 139(Whole No. 3555), 609-610.—Anterior hypothalamic temperature is reported for the unanesthetized cat resting at an air temperature of 22° to 25° C. during the ingestion of cold or warm liquids, and during sleep. Drinking cold (5° C.) milk resulted in an immediate depression of hypothalamic temperature and a period of peripheral vasodilation in the ear and forepaw foot and toe pads, followed by a drop in rectal temperature. Drinking warm (body temperature) milk did not bring about these changes. Hypothalamic temperature during sleep is lower by approximately 0.5° C. and is characterized by widely varying, slow-frequency oscillations, compared to the higher, more precisely controlled temperature seen when the animal is awake.—*Journal abstract.*

7681. Ader, R., Kreutnew, A., & Jacobs, H. L. (U. Rochester School Medicine) Social environment, emotionality, and alloxan diabetes in the rat. *Psychosom. Med.*, 1963, 25(1), 60-68.—43 albino rats were raised individually and 45 were raised in groups. Then equal numbers of each group, matched for emotionality, were caged individually or in groups. It was found that: (a) Ss raised in groups were less emotional; (b) level of emotionality was not related to the degree of hyperglycemia in response to alloxan; and (c) irrespective of rearing, animals living in groups when given alloxan showed higher blood sugar. (21 ref.)—*W. G. Shipman.*

7682. Block, Jack. (U. California, Berkeley) Measurement dimensions in a palmar resistance situation. *Psychol. Rep.*, 1962, 11(2), 319-331.—"As an empirical means of establishing the primary measurement dimensions . . . 22 skin resistance measures taken during a complex psychological situation (a film) were factor analyzed. Seven orthogonal dimensions, which subsumed almost all the significant variance, were extracted. The seven factors were labelled, tentatively, as General Resistance Level, Reactivity To The Film, Involvement In The Film, Phlegmatism, Resistance Peak When Uninvolved, Spontaneous GSRs, and Lowest Resistance Reached At Any Time. . . . The factor dimensions found appear to have some general applicability and have already received some cross-validation. Accordingly, researchers employing the palmar resistance technique may find useful the measures here proposed as relatively pure factorial indices."—*B. J. House.*

7683. Carlton, Peter L. (Squibb Inst. Medical Research) Cholinergic mechanisms in the control of behavior by the brain. *Psychol. Rev.*, 1963, 70(1), 19-39.—Several experiments indicated that a cholinergic system in the brain antagonizes a 2nd system, which activates behavior. Neuropharmacological considerations suggested certain drugs with which the activity of these systems could be altered. These experiments indicated that the cholinergic system acts selectively by preferentially antagonizing the effects of activation on unrewarded behavior. That is, there appears to be a cholinergic involvement in the mediation of the effects of nonreward. Although such interpretations are necessarily very tentative, there are inferential grounds for supposing that a cholinergic system selectively antagonizes the effect of activation on certain behavior and that the basis of this selectivity is the extent to which that behavior is unrewarded. (65 ref.)—*Journal abstract.*

7684. Coleman, P., & Havlena, Joan. (Lafayette Clinic, Detroit, Mich.) **Maze learning and open field behavior of adrenalectomized rats.** *J. psychosom. Res.*, 1962, 6(3), 153-156.—5 adrenalectomized rats did not differ from 5 sham operated and 5 normal control rats in total body weight, water intake, or ambulation (25 days post-op) in an open field. In a 4 unit T maze, however, controls made more early learning errors. Later in maze learning the groups did an equal number of errors, but the controls ran quicker than the adrenalectomized animals.—*W. G. Shipman.*

7685. Docter, R. F., Kaswan, J. W., & Nakamura, C. Y. (U. California, Los Angeles) **The reliability and distribution of spontaneous heart rate changes in humans.** *J. psychosom. Res.*, 1962, 6(4), 217-221.—Reliability of heart rate measures was studied in 84 college men over successive days and months. 1 week retest correlations ranged from .14 to .72. The maximum 1 month retest correlation was .35. Basal heart rate was not related to any heart rate fluctuation score used.—*W. G. Shipman.*

7686. Doehring, D. G., Ferster, C. B. (Indiana U. Medical Cent.) **Psychophysiological responses in a human operant situation.** *Psychol. Rec.*, 1962, 12(3), 251-261.—Heart rate, GSR, and blink rate were measured under a mixed schedule of reinforcement: FR20 V14 and DRL. In 1 experiment ($N=2$) effects of work no work to obtain reinforcement stimuli were compared. In the 2nd experiment ($N=1$) all sessions were work. In addition, for some sessions electric shock was given on a fixed ratio schedule. "The reinforcing stimuli produced consistent decreases in blink rate throughout all operant sessions except those where electric shock was given. The pattern of change in heart rate varied among S's."—*R. J. Seidel.*

7687. Dykman, R. A., Ackerman, Peggy T., Galbrecht, C. R., & Reese, W. G. **Physiological reactivity to different stressors and methods of evaluation.** *Psychosom. Med.*, 1963, 25(1), 37-59.—20 medical students were subjected to 2 stresses (task) one year apart. Skin-resistance, heart-rate, respiratory-rate, and forearm muscle potential were recorded. Most important determinants of physiological reactivity were found to be: level of functioning at the time a stimulus is presented, severity of the stress, response consistency, and group consistency. A new method of scaling autonomic responses is outlined. (42 ref.)—*W. G. Shipman.*

7688. Essman, Walter B., & Sudak, Frederick N. (Albert Einstein Coll. Medicine) **Effect of hypothermia on the establishment of a conditioned avoidance response in mice.** *J. comp. physiol. Psychol.*, 1963, 56(2), 366-369.—In 2 experiments investigating effect of moderate hypothermia on establishment of conditioned avoidance responses, and upon response to electric shock, an average reduction of body temperature by 2.8° C. was capable of impairing acquisition. Escape from electric shock was unimpaired at a greater degree of hypothermia than was required for impairment of acquisition. It was concluded that: (a) responses reinforced with a single punishing shock were not conditioned in hypothermic mice, whereas normothermic mice demonstrated conditioning under identical training conditions; (b) an escape response to 3.8 ma. shock remains unaffected

at colonic temperatures reduced by as much as 9.3° C.; (c) minimal hypothermia (2.8° C.) may interfere with acquisition of a response rather than retention of a response presumably acquired under hypothermia.—*Journal abstract.*

7689. Forsander, O., & Salaspuro, M. (Research Lab. State Alcohol Monopoly (Alko), Helsinki, Finland) **Voluntary ethanol consumption as related to ketone bodies metabolism in rats.** *Life Sci.*, 1962, No. 9, 467-470.—The preference for ethanol in self-selection experiments and the degree of ketonuria after oral administration of n-butyrate has been studied in male and female laboratory rats. A negative correlation exists between the ethanol consumption of the rats and the degree of ketonuria produced by butyrate administration.—*Journal abstract.*

7690. Fox, R. H., & Wyatt, H. T. (National Inst. Medical Research, London, England) **Cold-induced vasodilation in various areas of the body surface of man.** *J. Physiol., London*, 1962, 162(2), 289-297.—The distribution of the vasodilation phenomenon was tested at 34 body-surface sites on 3 male Ss. Areas 3 cm in diameter were cooled for 30 min. Responses were elicited from all areas previously known to respond and from many other areas. The distribution of responses accords well with the classic theory that the phenomenon is found in areas of the body likely to be exposed to severe local cooling.—*D. R. Peryam.*

7691. Fox, R. H., Goldsmith, R., & Kidd, D. J. (National Inst. Medical Research, London, England) **Cutaneous vasomotor control in the human head, neck and upper chest.** *J. Physiol., London*, 1962, 161(2), 298-312.—Surface calorimeters were used to monitor responses to cutaneous nerve block and the effects of vasodilator stimuli. Responses to inhalation of amyl nitrite and gustatory stimuli were examined. It was concluded that dilation of the ear, lip, and nose is mainly the result of the release of vasoconstrictor tone; but some vasodilation occurs in the nose in response to thermal and gustatory stimuli. Vasoconstrictor tone is relatively unimportant in controlling skin circulation in the scalp, forehead, chin, sub-mandibular area, neck, and upper chest.—*D. R. Peryam.*

7692. Gladstone, Roy. (Oklahoma State U.) **The effect of temperature upon palmar sweat.** *J. gen. Psychol.*, 1962, 67(2), 183-197.—Graphs of the relation between finger temperature and palmar sweat are presented. The graphs were plotted from data secured by repeated measurement of the variables when ambient temperature was varied. 5 groups were used. The conditions under which the ambient temperature was varied were emotionally serene but otherwise somewhat different in each group. Nevertheless the curves were similar in shape. It is concluded that palmar sweat increases gradually from a finger temperature of 65° to 85° F., increases more rapidly to 93° F., and probably decreases rapidly at higher temperatures. The curves can be used to correct palmar sweat data for the effect of changes in temperature, when such changes introduce an error in experimental data.—*Author abstract.*

7693. Grossman, Sebastian P. (Yale U.) **Effects of adrenergic and cholinergic blocking agents on hypothalamic mechanisms.** *Amer. J. Physiol.*, 1962, 202(6), 1230-1236.—Placement of minute

amounts of norepinephrine into an area between the fornix and mammillothalamic tract produced eating in food-satiated rats, and placement of acetylcholine or carbachol in identical loci caused drinking in water-satiated rats. Evidence for the neurohumoral nature of these effects is reported. Results suggest the presence of 2 populations of neural elements which are differentially sensitive to the 2 kinds of drugs.—D. R. Peryam.

7694. Handlon, J. H., Wadson, R. W., Fishman, J. R., Sachar, E. J., Hamburg, D. A., & Mason, J. W. (National Inst. Mental Health, Bethesda, Md.) **Psychological factors lowering plasma 17-hydroxycorticosteroid concentration.** *Psychosom. Med.*, 1962, 24(6), 535-542.—Using 19 normal young adult male Ss viewing Disney nature-study films, it was discovered that the levels of plasma 17-AHCS were lowered to a significant degree in comparison to: a control period when no films were shown, and a showing of emotionally arousing films. They conclude "that the CNS regulation of adrenocortical function involves lowering as well as raising plasma 17-OHCS concentrations."—W. G. Shipman.

7695. Johnson, Laverne C., & Corah, Norman L. (USN Medical Neuropsychiatric Research Unit, San Diego, Calif.) **Racial differences in skin resistance.** *Science*, 1963, 139(Whole No. 3556), 766-767.—In 2 laboratories utilizing different age Ss and recording techniques, Negro Ss had higher skin resistance than a comparable white population. There was no difference in other autonomic variables or autonomic reactivity. Reasons for this racial difference may offer a better physiological explanation for galvanic skin resistance.—*Journal abstract.*

7696. Johnson, Laverne C. (USN Neuropsychiatric Research Unit, San Diego) **Some attributes of spontaneous autonomic activity.** *J. comp. physiol. Psychol.*, 1963, 56(2), 415-422.—65 Naval helicopter pilots were examined to determine the stability and correlates of spontaneous autonomic activity, the effect of stimulation on spontaneous responses and the possible use of spontaneous activity as a measure of general autonomic lability. Over a 48-hr. period spontaneous GSR was found to be moderately stable ($\rho = .69$) but spontaneous heart rate (HR) was less reliable ($\rho = .36$). Spontaneous HR and GSR were independent of each other and neither was consistently related to EEG measures, heart rate, basal conductance, skin temperature, respiration, or blood pressure. Spontaneous activity during a resting period was related to that found during stimulation. For spontaneous GSR there was an initial increase in activity to each stimulus but rapid adaptation occurred to repetitive presentations. Spontaneous HR showed no change during stimulation. Ss with a large number of spontaneous responses, especially GSR, showed more reactivity to initial stimuli and less adaptation to repetitive stimuli than Ss with few spontaneous responses.—*Journal abstract.*

7697. Kleber, Ronald J., Lhamon, William T., & Goldstone, Sanford. (Baylor U. Coll. Medicine) **Hyperthermia, hyperthyroidism, and time judgment.** *J. comp. physiol. Psychol.*, 1963, 56(2), 362-365.—Ss with hyperthyroidism and Ss with raised body temperature judged auditory inputs in relation to their concept of a clock second. Both organismic

states resulted in an overestimation of the auditory durations, providing shorter inputs for temporal conceptual equivalence. The findings were predicted with reference to a model of the organism as an event-producing and counting clock, and the results conformed to previous work on time judgment and drugs and temperature.—*Journal abstract.*

7698. Lazarus, R. S., Speisman, J. C., & Mordkoff, A. M. (U. California, Berkeley) **The relationship between autonomic indicators of psychological stress: Heart rate and skin conductance.** *Psychosom. Med.*, 1963, 25(1), 19-30.—Correlations between autonomic nervous system indices of arousal have been small. This has resulted from the error of correlating across Ss. When intraindividual approaches were used on heart rate and skin conductance data obtained during benign and stressor films, correlations up to .5 were obtained. "Thus there is evidence of a generalized autonomic reaction when the appropriate methods of correlation are used." (18 ref.)—W. G. Shipman.

7699. Mandell, Arnold J., Chapman, Loring F., Rand, Robert W., & Walter, Richard D. (U. California, Los Angeles) **Plasma corticosteroids: Changes in concentration after stimulation of hippocampus and amygdala.** *Science*, 1963, 139(Whole No. 3560), 1212-1213.—Plasma 17-OH corticosteroid levels were determined before stimulation and at various intervals after stimulation in these limbic sites in patients in whom implanted electrodes had been placed during evaluation for surgical treatment of psychomotor epilepsy. Stimulation of the amygdala was followed by an elevation of plasma 17-hydroxycorticosteroids. Hippocampal stimulation resulted in a decreased corticosteroid level, followed in 2 instances by a secondary elevation.—*Journal abstract.*

7700. Meier, Gilbert W. (Lab. Perinatal Physiology, San Juan, P. R.) **Suppression of activity following physiological saline injection: Still more variables.** *Psychol. Rep.*, 1962, 11(2), 333-334.—"The suppressive effects of injections of physiological saline solutions upon activity, reported by Schnitzer and Ross, has been confirmed in another mouse strain with a much-simplified apparatus. The ionic balance and the relative volume of the injection are implicated as key variables."—B. J. House.

7701. Pare, W. (Boston Coll.) **The effect of conflict and shock stress on stomach ulceration in the rat.** *J. psychosom. Res.*, 1962, 6(4), 223-225.—"Data on stomach condition and adrenal weight are presented which indicated that animals subjected to shock stress experienced a more stressful environment as compared to Ss subjected to an approach-avoidance (water-shock) conflict. Ulcers previously reported as having been developed by psychological stress may be attributed to a greater degree, to the physical stress of electrical shock."—W. G. Shipman.

7702. Pineda, Anselmo, & Snider, Ray S. (Northwestern U.) **Nonspecific depressant action of serotonin on brain stem and cerebellum.** *Neurology*, 1963, 13(2), 166-176.—Because of the role of 5-HT (5-hydroxytryptamine, serotonin) as a depressant transmitter in the CNS the authors investigated its action on evoked response at different levels of brain stem, cerebellum, and cerebrum of cats under chloralose and under flaxedil. On the basis of monopolar and bipolar recording, the authors found

"a depressant effect of serotonin on evoked potentials in cerebellum and cerebrum following peripheral nerve stimulation." The same effect was recorded from several thalamic nuclei. A prolonged delay of action or no effect was found in mesencephalic reticular formation with 10 $\mu\text{g}/\text{kg}$. Higher doses (20-40 $\mu\text{g}/\text{kg}$) resulted in death. Artificial respiration produced an initial diminution of amplitude, followed by a total reappearance of the evoked response. It is concluded that serotonin has a general nonspecific effect on the CNS.—*R. Gunter*.

7703. **Spehlmann, Rainer.** (U. Freiburg, Germany) **Acetylcholine and prostigmine electrophoresis at visual cortex neurons.** *J. Neurophysiol.*, 1963, 26(1), 127-139.—Extracellular recordings were obtained from neurons of the visual cortex in cats while acetylcholine, prostigmine, and dihydro- β -erythroidine were electrophoretically discharged from adjacent barrels of multi-barreled micropipettes. Acetylcholine increased spontaneous activity and the evoked discharges during the light-activated phase in on-neurons, during the dark-activated phase in off-neurons, and during both in on-off neurons. Prostigmine alone sometimes had an activating effect. It also enhanced the effect on Ach subsequently applied.—*G. Westheimer*.

7704. **Stern, J. A., & Word, T. J.** (Washington U. School Medicine, St. Louis) **Heart rate changes during avoidance conditioning in the male albino rat.** *J. psychosom. Res.*, 1962, 6(3), 167-175.—"Heart rate conditioning using heart rate increment following the avoidance of shock as the CR, was demonstrated in 19 animals. The conditioned anticipatory heart rate response appears early in training and is maintained throughout criterion trials. That heart rate increment following avoidance is smaller than that following escape trials casts some doubt on the hypothesis that anxiety (as measured by HR increases) is greatest during the anticipatory period."—*W. G. Shipman*.

7705. **Weiner, S., Dorman, D., Persky, H., Stach, T. W., Norton, J., & Levitt, E. E.** (Indiana U. Medical Cent., Indianapolis) **Effect on anxiety of increasing the plasma hydrocortisone level.** *Psychosom. Med.*, 1963, 25(1), 69-77.—"Hydrocortisone and a placebo were administered on separate occasions to a group of 32 normal men in a 2 \times 2, double-blind, cross-over design. The hydrocortisone did not increase the mean Affect Adjective Checklist scores but did raise the IPAT Anxiety scale scores and Sum C of the Rorschach. These findings were taken to indicate that anxiety-proneness rather than current anxiety were elevated by the administration of the hormone." (28 ref.)—*W. G. Shipman*.

7706. **Woolley, D. W., & van Der Hoeven, T.** (Rockefeller Inst., N. Y.) **Alteration in learning ability caused by changes in cerebral serotonin and catechol amines.** *Science*, 1963, 139(Whole No. 3555), 610-611.—Excess of cerebral serotonin decreased maze-learning ability of adult mice; deficiency of serotonin and catechol amines increased it slightly.—*Journal abstract*.

PSYCHOPHARMACOLOGY

7707. **Bindra, Dalbir.** (McGill U.) **Effects of several drugs on relevant and irrelevant behavior**

components in a lever-pressing situation. *Psychol. Rep.*, 1962, 11(2), 307-310.—The effects of depressants, stimulants, and hypnotics were studied in 27 male hooded rats. "All drugs produced a decrement in the frequency of lever-pressing. When the animals were equated for this decrement, different components of behavior were found to be differentially affected by the various drugs. The changes in behavior could be described along two main dimensions: motor capacity or muscular coordination and inertia or 'unwillingness' to initiate or change movements. Gallamine (Flaxedil) affected only motor capacity, methylphenidate affected (decreased) only inertia, other drugs (chlorpromazine, phenobarbital, etc.) affected both these dimensions of behavior."—*B. J. House*.

7708. **D'yuchenok, R. YU., & Nazarov, L. A.** (Inst. Experimental Biology & Medicine, Siberian Acad. Sciences, USSR) **Vzaimootnosheniye serotoninina s tsentral'nymi adreno- i kholenoreaktivnymi sistemami v mekhanizme aktivatsii elektrentsefalogram.** [Interaction of serotonin with central adrenal and cholinoreactive systems in the mechanism of EEG activation.] *Dokl. Akad. Nauk SSSR*, 1962, 146(5), 1237-1240.—Several phase changes in the EEGs of cats are observed when 200-750 μg . of serotonin creatine sulphate is injected into the lateral ventricle of the brain. At first most animals display a low amplitude high frequency wave (16-24 cps at 10-20 μv .) In 7-10 minutes the background EEG becomes intermittent. From 35-45 minutes there appears a more steady background with high frequency low amplitude waves. The "driving" response to flickering light of high frequency improves in this period. Injection of 1-1.5 mg. of serotonin into the ventricle results in a sharp decrease of amplitude without change of frequency. Gradually the amplitude suppression increases, the "driving" response deteriorates, and in 2-3 hours the EEG is suppressed. Aminazine injections seem to have little effect on the activation reaction to serotonin, but application of such central cholinolites as metamizol (0.5 mg/kg), amazil and benzoacetin (0.1 mg/kg), and atropin (w-4 mg/kg) block the activation effect of serotonin.—*H. Pick*.

7709. **Fang, H. S., Liu, H. M., & Wang, S. C.** (Columbia U.) **Liberation of antidiuretic hormone following hypothalamic stimulation in the dog.** *Amer. J. Physiol.*, 1962, 202(2), 212-216.—In 94 of 111 dogs, stimulation—not only in the supraoptic and paraventricular nuclei but also in a larger area—gave moderate to marked antidiuretic effects which lasted for 15-35 min. Atropine and d-hyoscyamine did not block the responses, but adequate amounts of n-ethyl-nortropin-benzhydrylether-hydrobromide and dibenzylidine did. Possible mechanisms are discussed.—*D. R. Peryam*.

7710. **Helper, Malcolm M., Wilcott, R. C., & Garfield, Sol L.** (Nebraska Psychiatric Inst.) **Effects of chlorpromazine on learning and related processes in emotionally disturbed children.** *J. consult. Psychol.*, 1963, 27(1), 1-9.—39 children in a psychiatric hospital were tested on 2 types of learning tasks and several performance tasks before, during, and after a 4-week period on chlorpromazine or placebo, the types of medication being assigned randomly in a double-blind design. Medication was controlled according to clinical criteria. Paired-associate

learning was less effective under chlorpromazine, especially on later learning trials and among initially slower learning Ss. Serial learning and tapping rate showed less consistent trends. Porteus Maze Mental Age scores declined under chlorpromazine, while Q scores on the same test tended to improve. No drug effect was noted on remote or immediate memory. The results were tentatively interpreted in terms of impairment of attention span by chlorpromazine.—*Journal abstract.*

7711. Kikuchi, Tetsuhiko; Kitamura, Seiro; Sato, Isao, & Oyama, Masahiro. Rorschach performance in alcoholic intoxication. Part II. *Tohoku psychol. Folia*, 1962-63, 21(1-2-3), 19-46.—Both alcoholic intoxication and the effects of retesting were measured in 2 administrations of the Rorschach. The results for intoxication were: increased M, subjective responses, new responses, W; decreased C combinations and F plus, H with non-M, F%. For repetition: increased F combinations with C, M; increased D and A; high frequency of repeated responses from preceding testing. For intoxication and repetition: increased R and decreased initial reaction time.—G. Rubin-Rabson.

7712. Meyer, Patricia M., Horel, James A., & Meyer, Donald R. (Ohio State U.) Effects of dl-amphetamine upon placing responses in neocorticate cats. *J. comp. physiol. Psychol.*, 1963, 56(2), 402-404.—6 cats with extensive lesions of the neocortex were tested for visual placing and left- and right-forepaw tactile placing responses before and after the administration of dl-amphetamine sulfate. 13 of 15 responses that had not returned after many months of postoperative recovery appeared and subsequently disappeared after drug injection.—*Journal abstract.*

7713. Nagatsuka, Yasuhiro, & Maruyama, Kinya. Effects of alcohol upon speed anticipation reaction test and discriminative reaction test of multiple performance type. *Tohoku psychol. Folia*, 1962-63, 21(1-2-3), 47-53.—The control function of consciousness was reduced and the reaction performance was retarded (delay and unevenness of reaction) by alcohol.—G. Rubin-Rabson.

7714. Nichols, John R., & Evans, Wayne O. The relationship between the analgetic effect of morphine and addiction liability in rats. *USA Med. Res. Lab. Rep.*, 1963, No. 559. ii, 8 p.—Rats, from specially developed strains of addiction-prone and addiction-resistant animals, were tested to determine their sensitivity to the analgesic effect of morphine. The "jump-flinch" analgesimetric method was used. Each animal was tested under 5 different dose levels of morphine, as well as with the vehicle as a placebo control. A difference in sensitivity to morphine was shown by both the dose-response slopes and the mean electric shock threshold values. The animals from the addiction-prone strain profited most from the morphine in terms of its analgetic activity.—*USA MRL.*

7715. Sato, Isao; Oyama, Masahiro; Kitamura, Seiro, & Kikuchi, Tetsuhiko. Rorschach performance under Ravona dosage. Part I. *Tohoku psychol. Folia*, 1962-63, 21(1-2-3), 1-17.—15 students were administered pentobarbital calcium and 7 of these a galvanometric test as well. Rorschach results under these conditions differed from normal results

as follows: level of excitement of the autonomic nervous system tends to decline; in poorly producing Ss, R increases and initial time reaction is reduced; C combinations decrease; C responses increase, as does R to the last 3 cards; and A responses decrease.—G. Rubin-Rabson.

7716. Savage, R. D. (U. New England, Australia) The effect of reserpine on conditioned fear responses. *Brit. J. Psychol.*, 1962, 53(4), 451-454.—The effect of various amounts of the drug reserpine, a derivative of rauwolfia, were investigated in relation to foreleg flexion and ambulation responses in goats subjected to electric shock stimulation. Measures revealed that as the drug dosage increased the flexion scores increased and the ambulation decreased. In the control group, without the drug, the number of flexions and ambulation scores was maximal. The findings are interpreted in terms of the possible sites of action of the drug.—*Journal abstract.*

7717. Wagner, Allan R. (Yale U.) Sodium amytal and partially reinforced runway performance. *J. exp. Psychol.*, 1963, 65(5), 474-477.—Acquisition performance of rats in a simple runway was investigated as a function of percentage reinforced trials (100% vs. 50%) and injection solution received prior to daily training (sodium amytal vs. isotonic saline) in a 2 x 2 factorial design. The results obtained from 4 groups of 12 Ss showed 50% reinforcement to lead to faster final speeds than 100% reinforcement with saline control injections; whereas this order was reversed under training with sodium amytal. The results were predicted from a frustration theory interpretation of random partial reinforcement and the assumption that anticipatory frustration is particularly susceptible to the depressant action of sodium amytal.—*Journal abstract.*

ENVIRONMENTAL EFFECTS

7718. Cohen, S. I., Silverman, A. J., & Shmavonian, B. M. (Duke U. Medical Cent., Durham, N. C.) Psychophysiological studies in altered sensory environments. *J. psychosom. Res.*, 1962, 6(4), 259-281.—By making the situation highly ambiguous, sensory deprivation of 2 hours has the same disruptive effect as longer sessions. 12 field-oriented (FO) college males, in contrast to 12 body-oriented (BO) ones, on the basis of rod-and-frame and draw-a-person tests, had more psychological and bodily discomfort, more imagery, and disorganization of thought. The arousal level (EEG) of the FOs rose more during the session, and afterwards their sensory discrimination was poorer. In a subsequent experiment, the effects of a sedative, stimulant, or placebo were studied. These tended to calm the FOs and to disturb the BOs. In another study where placebo and LSD were administered, the latter made the Ss behave like FOs. (40 ref.)—W. G. Shipman.

7719. Farrer, Donald N., & Bogo, Victor. Chimpanzee performance during a simulated three-day space flight. *USAF ARL tech. docum. Rep.*, 1962, No. 62-25. vii, 27 p.—Chimpanzee performance during a simulated 97-hr. space flight profile environment was evaluated with a pilot study and a crossover design. The response rate on the continuous avoidance task was significantly lower for 1 S in the 100% O₂ environment, and both Ss performed at lower rates during night work sessions on all tests. There was no

evidence of reaction time decrement for any S on the discrete avoidance task. Food and water consumption was poor during the simulated space flight, but a chimpanzee could withstand a 97-hr. flight profile environment of 100% O₂ at 14.7 psi for 15 hr. followed by 100% O₂ at 5 psi, for 82 hr. without serious performance changes.—*USAF ARL*.

7720. Rohles, Frederick H., Jr., & Reynolds, Herbert H. A proposed approach toward determining the psychophysiological effects of prolonged manned space flight. *USAF ARL tech. docum. Rep.*, 1962, No. 62-28. iii, 5 p.—Orbital space flights are proposed to study the psychophysiological effects of prolonged weightlessness and cosmic radiation. The program presented will use animal Ss and attempts to eliminate weightlessness and cosmic radiation as deterrents to manned space flights of higher altitudes and longer duration.—*USAF ARL*.

7721. Tapp, Jack T., Markowitz, Hal. (Vanderbilt U.) Infant handling: Effects on avoidance learning, brain weight, cholinesterase activity. *Science*, 1963, 140(Whole No. 3566), 486-487.—Infant rats were "handled" by removing them periodically from their home cages. "Non-handled" rats were left undisturbed. ½ of the animals were killed at weaning, and weights and cholinesterase activity were determined on 4 different sections of the brain. The remaining animals were conditioned to avoid an administered shock. Handling increased ventral-cortex and subcortical weights and decreased subcortical cholinesterase. No differences in avoidance conditioning were observed.—*Journal abstract*.

Radiation

7722. Carver, Michael C., & Close, Perry. The effect of prior X-irradiation on the survival of mice in explosive decompression. *USN Sch. Aviat. Med. res. Rep.*, 1962, Proj. MR005.13-1002, Subtask 17, Rep. No. 3. ii, 6 p.—Mice were exposed to varying doses of X-irradiation, then explosively decompressed shortly afterward. The survival proportion of irradiated animals is not significantly lower than nonirradiated, explosively decompressed animals, even with the radiation dose several times in excess of the LD₅₀-30 day dose.—*USN SAM*.

7723. Davis, Roger T., & McDonald, Arthur L. (U. South Dakota) Perception of oddity by monkeys as a function of aging and radiation. *Psychol. Rep.*, 1962, 11(2), 383-386.—After size oddity training, 14 rhesus monkeys were tested on a modification of the oddity problem similar to the method of bisection. The left and right stimuli served as standards of .75 and 3.50 in. high, respectively. The center stimulus (never correct) varied from .75 to 3.50 in. in steps of .25 in. in either ascending or descending series. 4 old irradiated Ss (11-12 yr.) shifted response when the variable object was approximately ½ the height of the tall standard object. 5 old nonirradiated monkeys shifted when the variable was more nearly ½ the distance between the tops of the short and tall standards. 5 younger monkeys (3.5-5.5 yr.) were inferior to the older groups. "The results are discussed as giving further evidence of the difference in scope of attention of irradiated and non-irradiated monkeys and not what would be predicted from the hypothesis that aging and radiation effects are identical."—*B. J. House*.

7724. Furchtgott, Ernest. (U. Tennessee) Behavioral effects of ionizing radiations: 1955-61. *Psychol. Bull.*, 1963, 60(2), 157-199.—A review of the rapidly increasing literature. The conclusions included: (a) Mammals irradiated pre- or neonatally show relatively permanent deficits in several behavioral domains, such as learning, motor functions, mating, etc. (b) Some investigators report that even small doses affect neural functions and consequently CR acquisition while other find no effects even with large doses. (c) Radiation, however, may be an UCS in avoidance conditioning. Also, several motivational variables are affected. (d) Except for vision where the results are equivocal the data on sensory functions are scant. (e) There is little evidence for long-term human changes. (f) It is emphasized that radiation may be a potentially useful tool in several areas. (195 ref.)—*Journal abstract*.

7725. Pizzarello, Donald J., Witcowski, Richard L., & Lyons, E. Ann. (Bowman Gray School Medicine, Winston-Salem, N. C.) Variations in survival time after whole-body radiation at 2 times of day. *Science*, 1963, 139(Whole No. 3552), 349.—Rats, anesthetized with sodium pentobarbital, given 900 roentgens of x-radiation over the entire body, survived more than 130 days when the radiation was given in the morning. The same dosage killed all the animals within 13 days when the radiation was given at night.—*Journal abstract*.

Stress

7726. Brady, J. P., Thornton, D. R., & de Fisher, D. (Indiana Medical Cent. Indianapolis) Deleterious effects of anxiety elicited by conditioned preaversive stimuli in the rat. *Psychosom. Med.*, 1962, 24(6), 590-595.—A comparison was made of the deleterious effects (mortality and morbidity) of a conditioned emotional response (anxiety) and of the aversive stimulus itself (electric shock). One group had the shocks preceded by a buzzer. The 2nd group had the same amount of shock without a preaversive stimulus. The 3rd group received neither shock nor buzzer. Mortality and morbidity were greatest for the 1st group. The experiment was done 4 times, varying parameters and conditions.—*W. G. Shipman*.

Nutrition

7727. Sanahuja, Juan C., & Harper, Alfred E. (U. Wisconsin) Effect of amino acid imbalance on food intake and preference. *Amer. J. Physiol.*, 1962, 202(1), 165-170.—Imbalance was created by adding 3.8% of an amino acid mixture lacking histidine to a diet containing 6% beef fibrin. Protein-depleted rats fed balanced or imbalanced diets ate equal amounts for 3 days; then growth rate and food intake of those on the imbalanced diet dropped. When offered protein-free diet and the imbalanced-diet, depleted rats at first refused the former but after 3 days preferred it. Animals fed the balanced diet or the imbalanced diet plus histidine refused the protein-diet.—*D. R. Peryam*.

GENETICS & BEHAVIOR

7728. Denenberg, Victor H., Ross, Sherman, & Blumenfeld, Michael. (Roscoe B. Jackson Memorial Lab.) Behavioral differences between mutant

and nonmutant mice. *J. comp. physiol. Psychol.*, 1963, 56(2), 290-293.—The purpose of this study was to determine whether behavioral differences could be related to mutant genes. 4 mutant strains of mice were tested on several behavioral measures. Within each strain there were 2 kinds of Ss, each highly inbred except for 1 mutant gene. In the Hairless strain it was found that the hairless mutant was significantly less active in an openfield test and was also unable to perform adequate in a swimming task. In the Pintail strain the mutant extinguished an escape response significantly faster than the normal. No behavioral correlates could be found for either the short-ear or pale-ear genes.—*Journal abstract.*

7729. Gottesman, Irving I. (Harvard U.) **Differential inheritance of the psychoneuroses.** *Eugen. Quart.*, 1962, 9(4), 223-227.—Holzinger's heritability index H, and F-ratios between fraternal and identical within pair variances, were calculated for scales from the MMPI and Cattell's High School Personality Questionnaire (HSPQ) in this study of 34 identical and 34 like-sexed fraternal twin pairs. Zygosity determinations were based on tests for 9 blood groups. The results differed somewhat between the 2 sexes. For the combined samples, significant results beyond the 10% level were found for the Depression and Social Introversion scales of the MMPI and for the Depressed versus Enthusiastic (F) and Confident versus Guilt Prone (O) scales of the HSPQ. The author concludes that neuroses with hypochondriacal and hysterical elements have at most a small hereditary component, while those with elements of anxiety, depression, obsession, and schizoid withdrawal have a substantial hereditary component under the environmental conditions obtaining for this particular adolescent sample.—*S. G. Vandenberg.*

7730. Levine, Seymour, & Broadhurst, P. L. (U. London, England) **Genetic and ontogenetic determinants of adult behavior in the rat.** *J. comp. physiol. Psychol.*, 1963, 56(2), 423-428.—80 rats from the Maudsley Reactive and Nonreactive Strains, selected for emotional defecation, were subjected to controlled infantile stimulation. When adult, they were tested for open-field emotionality and escape-avoidance conditioning in a factorial design, which included strain, treatment, sex, and test-order variables. Both heredity and environment had significant effects, and also display interaction. The scores from the open-field showed that infantile stimulation caused a significant decrease in emotionality indexes which is attributed to a change in the capacity to respond to stress. The reactive strain was significantly poorer in escape-avoidance conditioning. (17 ref.)—*Journal abstract.*

7731. Lundstrom, Anders. (Dental School, Stockholm, Sweden) **Tooth morphology as a basis for distinguished monozygotic and dizygotic twins.** *Amer. J. Hum. Genet.*, 1963, 15(1), 34-43.—A detailed examination of dental casts led to the same diagnosis of zygosity in 117 out of 124 pairs. The Author concludes that a fairly reliable judgment about zygosity is possible from dental casts provided the O has a good knowledge of the variation in tooth morphology.—*S. G. Vandenberg.*

7732. Mesnikoff, Alvin M., Rainer, John D., Kolb, Lawrence C., & Carr, Arthur C. **Intra-familial determinants of divergent sexual behavior**

in twins. *Amer. J. Psychiat.*, 1963, 119(8), 732-738.—4 sets of 1-egg twins and 1 2-egg male twin pair furnished data that revealed certain parental attitudes which alone, and in combination, and through a series of familial transactions determined the differential psychosexual role of the twins.—*N. H. Pronko.*

7733. Post, R. H. (U. Michigan) **Population differences in vision acuity: A review, with speculative notes on selection relaxation.** *Eugen. Quart.*, 1962, 9(4), 189-212.—In this review the author examines critically the question whether poor vision is more common under the conditions of modern civilization than it was in primitive cultures. First the genetic basis for refraction aberrations which form the most frequent defects of visual acuity is reviewed. Next, reports of different frequencies of refractive errors in various populations are summarized and found to agree to some extent on the existence of such differences. Finally the author raises the possibility of relaxation of earlier selection pressures against defective vision in prehistoric hunting and food gathering societies as an explanation for the higher frequencies of refractive errors among populations with long histories of agriculture and/or permanent settlement.—*S. G. Vandenberg.*

7734. Salagh, G., & Edgerton, R. B. (Pacific State Hosp., Pomona, Calif.) **Sterilized mental defective look at eugenic sterilization.** *Eugen. Quart.*, 1962, 9(4), 213-222.—50 former patients out a possible total of 110 were located and interviewed. 40 of these had been sterilized and expressed an opinion about the desirability of the operation. Over $\frac{3}{4}$ disapproved with more females and more married males disapproving than single males. A number of quotations are used to illustrate attitudes encountered.—*S. G. Vandenberg.*

7735. Willham, R. L., Cox, D. F., & Karas, G. G. (Iowa State U.) **Genetic variation in a measure of avoidance learning in swine.** *J. comp. physiol. Psychol.*, 1963, 56(2), 294-297.—Differences among individuals in response to avoidance learning situations are usually maximal when the average probability of avoidance is near $\frac{1}{2}$. This average was realized in the 3rd set of 10 trials given 572 young swine. The purpose of this work was to measure the relative amount of variance that is of genetic origin in number of avoidances made by Ss in the 3rd set of 10 trials. Genetic variance was separated from other sources by using the correlation between numbers of avoidances made by related individuals. Nearly 50% of the variance among pigs belonging to relatively homogeneous groups was attributable to additively genetic causes. Clearly, differences among individuals for this measure of learning ability in swine are influenced by the heredity of the individuals.—*Journal abstract.*

LATERAL DOMINANCE

7736. Chateau, J. **La latéralisation et ses effets.** [Lateralization and its effects.] *Enfance*, 1962, No. 3, 223-262.—Detailed summary of data from 3770 Ss from preschool to adult, relative to incidence of left handedness, ambidexterity, and right handedness in writing, cutting with a knife, and throwing a ball. Numerous tables and graphs summarize obtained relationships. A statistic J is developed to indicate degree of consistency between handedness on the above-men-

tioned 3 acts. The effect of handedness upon mode of drawing animals, utensils, and the face is shown. Data are held to support a general education factor and specific factors, but the existence of a constitutional factor is not denied.—*S. S. Marzolf.*

ANIMAL PSYCHOLOGY

7737. Candland, Douglas K., & Culbertson, Jack L. (Bucknell U.) **Age, type and duration of deprivation, and consummatory preference in the rat.** *J. comp. physiol. Psychol.*, 1963, 56(3), 565-568.—Rats of either 23 or 50 days of age ($N = 522$) were deprived of food, water, or both and water for 1, 12, 24, 48, or 72 hr. Preference for food or water during the 1st hr. following the deprivation experience, latency, the number of Ss which did not select either substance in the 1-hr. test period, and weight loss were recorded. Preference appears to be the most sensitive measure of motivation examined in this study in that it indicates differences as a function of age which other measures overlook.—*Journal abstract.*

7738. Duda, John J., & Bolles, Robert C. (U. Rochester) **Effects of prior deprivation, current deprivation, and weight loss on the activity of the hungry rat.** *J. comp. physiol. Psychol.*, 1963, 56(3), 569-571.—During a single 24-hr. period without food, following different immediately-prior deprivation conditions, 7 groups of naive rats were tested in activity wheels. The groups were under 0-, 24-, 48-, 72-, or 96-hr. immediately-prior continuous deprivation and some groups had, in addition, 10 days of experience with a cyclic 24-hr. feeding schedule just prior to the continuous deprivation. It was found that, apart from the effect that these different deprivation conditions had upon S's loss of body weight, they had no effect upon activity. Activity level was found to be predominantly a function of weight loss, and independent of how weight had been lost.—*Journal abstract.*

7739. Hayes, W. N., & Warren, J. M. (U. Rochester) **Failure to find spontaneous alternation in chicks.** *J. comp. physiol. Psychol.*, 1963, 56(3), 575-577.—A series of 3 experiments were conducted to determine whether White Rock chicks, 2-6 days old, exhibit spontaneous alternation behavior in situations where alternation behavior has been demonstrated in rats and various invertebrate forms. In none of the studies was there any evidence of significant alternation of successive responses by chicks. These results suggest that the phenomenon of spontaneous alternation may not be as ubiquitous as some current behavior theories imply.—*Journal abstract.*

7740. Heitman, Hubert, Jr., Hahn, LeRoy; Bond, T. E., & Kelly, S. F. (U. California) **The effects of modified summer environment on swine behaviour.** *Anim. Behav.*, 1962, 10(1-2), 15-19.—Groups of 9 pigs were penned alike except for such extra heat relief measures as open shade, wallows, and airconditioned houses. During the 50 days of observation experimental groups showed weight gains greater than controls who had no special relief measures, but these gains did not relate to total time spent utilizing the relief.—*W. J. Coppock.*

7741. Hutchinson, J. C. D., & Taylor, W. W. (Poultry Research Cent., Edinburgh, Scotland) **Motor co-ordination of pecking fowls.** *Anim. Behav.*,

1962, 10(1-2), 55-61.—Pecking skill on a rotating turntable and hard and soft floors was tested over a period of 5 weeks and, for 3 hens, retested a year later. Rate of pecking and grains per minute taken was disrupted for a number of days following cautious trimming of the beak. "There was an inverse correlation between area of the comb and both rate and accuracy of pecking. Rate of pecking and accuracy were positively correlated. It is concluded that when a group of fowls is given a limited amount of grain, varying skill as well as the social hierarchy will make an important contribution to differences in consumption between individual birds."—*W. J. Coppock.*

7742. Hutchinson, J. C. D., & Taylor, W. W. (Poultry Research Cent., Edinburgh, Scotland) **Effect of exposure to heat on the motor co-ordination of pecking fowls.** *Anim. Behav.*, 1962, 10(1-2), 62-66.—The motor coordination of cocks and hens was examined when they were pecking grain from a turntable apparatus in hot atmospheres. Performance was studied at the following ambient temperatures: 90°, 95°, 98°, 101°, and 103° F., with a humidity of 11 mm. Hg vapor pressure and an air movement of 20 ft/min. The birds were able to inhibit their thermal polypnoea to perform the test. At rectal temperatures somewhere between 110° and 112° F., the birds refused to cooperate. In contrast with various similar experiments which have been performed on man, accuracy was as good or better in the heat than in a control environment of 65° F. The rate of work decreased significantly at ambient temperatures above 95° F. The number of grains taken per minute decreased slightly in the heat.—*W. J. Coppock.*

7743. Marler, P., Kreith, M., & Willis, E. (U. California) **An analysis of testosterone-induced crowing in young domestic cockerels.** *Anim. Behav.*, 1962, 10(1-2), 48-54.—Tape-recordings, made from about 1 week to 12 weeks of age, of crowing induced in young domestic cockerels by testosterone implants have been analyzed on the sound spectrograph. At any one time each individual uses the same basic pattern, with variations. Striking and consistent differences occur between the patterns of individual chicks. A comparison of juvenile crowing in 3 highly inbred lines of white leghorns of different parentage did not reveal any consistent differences, nor did a similar comparison of crowing in 3 hybrid strains. The latter had more variable crows than the inbred lines. While genetic factors seem to control such characteristics as the duration of crowing and the period of frequency oscillation (which is similar in young and old birds), different degrees of inbreeding for egg and meat production, etc., have had little consistent effect on the crowing pattern.—*W. J. Coppock.*

7744. Sakagami, Shōichi F., & Hayashida, Kazuo. (Hokkaido U., Japan) **Work efficiency in hetero-specific ant groups composed of hosts and their labour parasites.** *Anim. Behav.*, 1962, 10(1-2), 96-104.—Workers of 3 species were placed in a test formicary consisting of tubes 40 cm. long half-filled with sand. The amount of sand excavated during 24 hours by groups consisting of the host species, *Formica fusca*, in various combinations with the labor parasitic species, *F. sanguinea* and *Polyergus samurai*, was measured. Results showed no work nor effect on performance of *fusca* by *samura*, less efficient work by

sanguinea, and a decrease in individual efficiency as group size increased.—*W. J. Coppock.*

7745. **Stride, George O., & Warwick, Esme P.** (Cunningham Lab., Brisbane, Australia) **Ovipositional girdling in a North American cerambycid beetle, *Mecas saturnina*.** *Anim. Behav.*, 1962, 10 (1-2), 112-117.—Examples of cerambycid behavior are reviewed, and the girdling behavior of *Mecas saturnina* is described. The effects of girdling on the water relationships of the stem, in the absence of a transpiration stream, have been investigated and seem insufficient to explain the girdling behavior. A hypothesis is advanced whereby the double-girdling behavior of *M. saturnina* may be regarded as a device originally evolved to permit the use of succulent green shoots of otherwise woody plants as food for cerambycid larvae. It had been retained in *M. saturnina* since it promotes advantageous changes, possibly increased pithiness, in the herbaceous host plant attacked.—*W. J. Coppock.*

7746. **Wallis, D. I.** (Cambridge U., England) **Behaviour patterns of the ant, *Formica fusca*.** *Anim. Behav.*, 1962, 10(1-2), 105-111.—A description and classification of responses of workers: behavior not involving another individual (running, etc.), behavior involving another (aggressive behavior, etc.), and behavior associated with brood (feeding, etc.).—*W. J. Coppock.*

NATURAL OBSERVATION

7747. **Morton, J. E.** (U. Auckland, New Zealand) **Habit and orientati in the small commensal bivalve mollusc, *Montacuta ferruginosa*.** *Anim. Behav.*, 1962, 10(1-2), 126-133.—The pedal mucous trails made during orienting responses to light, gravity, and chemostimulation were studied with reference to orientation in natural conditions. A comparison with the noncommensal *Lasaea rubra* under similar stimulation is made.—*W. J. Coppock.*

7748. **Stein, Robert Carrington.** **Isolating mechanisms between populations of Traill's Flycatchers.** *Proc. Amer. Phil. Soc.*, 1963, 107, 21-50.—2 types of Traill's Flycatchers, which sometimes inhabit the same territory, closely resemble each other in appearance and are principally distinguished by their songs. Careful examination shows slight differences in morphology and in nesting habits, which like the songs remain distinct for the 2 types. Mutual recognition in the mating season is entirely by song and not visual. Response to tape-recorded songs is specific. Presumably these types are distinct species. The names *Empidonax traillii* (Audubon), Traill's Flycatcher, and Alder Flycatcher might be retained for the species with the "Fee-bee-o" song, the names *Empidonax brewsteri* (Oberholser) or Willow Flycatcher for the species with the "Fitz-bew" song.—*E. G. Boring.*

7749. **Wilson, Edward O.** (Harvard U.) **Chemical communication among workers of the fire ant, *Solenopsis saevissima* (Fr Smith): I. The organization of mass-foraging.** *Anim. Behav.*, 1962, 10 (1-2), 134-147.—Colonies were housed in circular artificial nests placed on glass platforms which served as foraging fields. Studies of exploration of new territory, behavior at a food find, trail-laying, recruitment of new workers, specificity of the trail sub-

stance, and artificial induction of mass-foraging, suggest that recruitment in foraging is organized by the use of a trail substance secreted by Dufour's gland.—*W. J. Coppock.*

EARLY EXPERIENCE (INCLUDING IMPRINTING)

7750. **Berkson, Gershon, & Fitz-Gerald, Frances L.** (Yerkes Lab. Primate Biology, Orange Park, Fla.) **Eye fixation aspect of attention to visual stimuli in infant chimpanzees.** *Science*, 1963, 139 (Whole No. 3555), 586-587.—Infant chimpanzees look at a visual stimulus for a regularly decreasing proportion of the time after presentation of the stimulus. Individual differences and presentation of a novel object affect the general level of fixation but do not significantly influence the slope of the curve showing the decline of fixation with time.—*Journal abstract.*

7751. **Denenberg, Victor H., & Smith, S. A.** (Purdue U.) **Effects of infantile stimulation and age upon behavior.** *J. comp. physiol. Psychol.*, 1963, 56(2), 307-312.—One group of rats was given 3 min. of shock on Days 11-20 of life, another group experienced handling, and a control group was not disturbed. Ss were weaned and weighed at 25 days. At 50, 100, 150, or 200 days independent groups ($N = 144-162$) received open-field testing, avoidance learning, and extinction. Ss were sacrificed and body, adrenal, and thymus weights obtained. Within age range studied, effects of infantile stimulation upon behavior were invariant. Nonhandled controls had highest defecation rate and were least active. Ss shocked in infancy took longest to respond in learning situation. Ease of avoidance learning and resistance to extinction increased with age. Open-field behavior was constant over age before introduction of avoidance learning but increased with age subsequently.—*Journal abstract.*

7752. **Greenbaum, Marvin, & Gunberg, D. L.** (U. Oregon) **The effect of neonatal hyperoxia on sexual arousal and emotionality in the male rat.** *Anim. Behav.*, 1962, 10(1-2), 28-33.—Neonatal hyperoxia was studied as a method of provoking behavioral disturbances in animals because of its possible connection with adaptive deficiencies observed in premature human infants who had been exposed to excessive O_2 at birth. The sexual responsiveness and emotionality of adult rats was measured after they had been subjected to hyperoxia for 10 days after birth. These Ss were found to be less sexually responsive (longer mount latencies and smaller percentage of mounters) and more emotional (more defecation in the open field apparatus, larger adrenals, and smaller body weights) than untreated controls. 2 other control groups of blinded and blinded plus O_2 treated Ss yielded comparable patterns to the O_2 group. These findings were interpreted to indicate that neonatal hyperoxia could be a potent influence on some aspects of adaptive behavior and that at least one of its consequences was to establish long term stress factors which were apparently also introduced by the other treatments.—*W. J. Coppock.*

7753. **Kovach, Joseph K., & Hess, Eckhard H.** (U. Chicago) **Imprinting: Effects of painful stimulation upon the following response.** *J. comp. physiol. Psychol.*, 1963, 56(2), 461-464.—3 conditions of electric shocks of different intensities and frequencies

administered during the imprinting experience were tested for their effects on chicks at 14, 18, 32, or 48 hr. after hatching. Experimental Ss followed significantly more than controls at 14 and 18 hr. if the shocks were either strong but infrequent, or relatively weak but much more frequent. Older chicks, however, followed significantly less under these 2 shock conditions. Strong and frequent shocks did not affect the amount of following in Ss at 14 hr., but seriously interfered with it at all later ages. The data, in light of the maturational state of the Ss, indicate that the performance of following is approximately an inverted U shaped function of the intensity of the neural activity associated with the administration of painful stimulation.—*Journal abstract.*

7754. Lindzey, Gardner; Winston, Harvey D., & Manosevitz, Martin. (U. Minnesota) Early experience, genotype, and temperament in *Mus musculus*. *J. comp. physiol. Psychol.*, 1963, 56(3), 622-629.—Each of 4 strains of inbred mice was divided into an experimental group, exposed to noxious, infantile stimulation, and a control group. Effects of treatment were assessed at 30 days by an open-field measure of emotionality and motility, at 70 days by a stovepipe measure of timidity, and at 100 days by the open-field measure. Significant strain differences were observed in all measures; experimental Ss were more emotional and less motile at 30 days and more timid at 70 days than control Ss. 3 of 5 tests for interaction between genetic (strain) and ontogenetic (infantile treatment) factors were significant. These results are unambiguous concerning the importance of genotype and infantile trauma as determinants of mouse temperament. (25 ref.)—*Journal abstract.*

7755. Lockard, Robert B. (U. Wisconsin) Self-regulated exposure to light by albino rats as a function of rearing luminance and test luminance. *J. comp. physiol. Psychol.*, 1963, 56(3), 558-564.—Male albino rats were reared from weaning in 1 of 7 different lighting conditions, then tested with a 2-bar procedure that allowed on and off control of test-chamber lights of several intensities. The test session was for 12 consecutive days. After 6 days away from their rearing environment, the differently-reared rats continued to perform differently in the same test situation. Thus being reared in different illuminations not only significantly affected performance, but had a very persistent effect.—*Journal abstract.*

7756. Moltz, Howard. (Brooklyn Coll.) Imprinting: An epigenetic approach. *Psychol. Rev.*, 1963, 70(2), 123-138.—The analysis presented takes an epigenetic approach as a point of departure in specifying the manner in which intrinsic and extrinsic factors participate in the development and organization of the imprinting response in precocial birds. It suggests that during the early neonatal "critical period," the response functions to modulate the gross sensory input provided by the imprinting object so as to make it fall within the range necessary to evoke a parasympathetically-governed organic set and that, thereafter, attachment to the object is maintained by a process of selective learning, with fear reduction functioning as the reinforcing agent. Several experiments suggested by the present analysis were discussed. (40 ref.)—*Journal abstract.*

7757. Ottinger, Donald R., Denenberg, Victor H., & Stephens, Mark W. (Purdue U.) Maternal

emotionality, multiple mothering, and emotionality in maturity. *J. comp. physiol. Psychol.*, 1963, 56(2), 313-317.—3 experiments were conducted to test the hypotheses that offspring emotionality is positively associated with mother's level of emotionality (rated from pre-pregnancy open-field behavior) and that offspring experiencing multiple mothering (mother rotated between her own litter and one foster litter every 24 hr.) are more emotional in adulthood than offspring reared by a single mother. Ss were 269 Purdue-Wistar rats from 36 litters. Experiment 1 employed a 3×2 factorial design. Offspring were weighed at 21, 50, and 62 days and tested in the open field daily on Days 50-53. Open-field emotionality data confirmed both hypotheses. Experiments 2 and 3 established that offspring emotionality is independently related to both prenatal and postnatal emotionality of mother.—*Journal abstract.*

7758. Sackett, Gene P. (Claremont U. Coll.) A neural mechanism underlying unlearned, critical period, and developmental aspects of visually controlled behavior. *Psychol. Rev.*, 1963, 70(1), 40-50.—It is proposed that innate visual perceptual and preferential choice behavior, forming the basis for release of fixed action patterns in many species including humans, is organized and integrated neurally by the retinal ganglion cells. A neural mechanism based on the differential sensitivity of these cells to specific aspects of stimulation, with cells exhibiting a differential rate of maturation paralleling the maturation of certain behavior, is developed. It is hypothesized that this mechanism is responsible for onset of the imprinting critical period, inborn preferential choice responses, innate object recognition, and the stimulus-specific releasing function involved in fixed action patterns. Evidence supporting the neural model is presented, and specific examples of relevant behavior are explained in terms of the model.—*Journal abstract.*

7759. Shinkman, Paul G. (U. Michigan) Visual depth discrimination in day-old chicks. *J. comp. physiol. Psychol.*, 1963, 56(2), 410-414.—Dark-reared day-old Leghorn chicks were tested individually for side preference in a visual cliff. 107 Ss received various treatments immediately prior to testing, including 2 hr. of pre-exposure to a stimulus field resembling the deep side of a visual cliff, reduction to monocular vision, or topical application of d-tubocurarine chloride on the cornea. Principal conclusions were: (a) Day-old chicks exhibit unlearned visual depth discrimination. (b) Cues provided by focusing are critical for this discrimination; binocular and motion parallax cues are not. (c) Pre-exposure to the stimulus field does not contravene avoidance of the deep side, even when Ss are allowed no other visual experience whatever.—*Journal abstract.*

7760. Soskin, Robert A. (Washington U.) The effect of early experience upon the formation of environmental preferences in rats. *J. comp. physiol. Psychol.*, 1963, 56(2), 303-306.—To determine whether a period of constant exposure to a vibratory environment would result in a preference for vibration in the rat, separate groups of Ss were raised from 1-21, 22-43, or 44-65 days of age, in cages with floors which transmitted constant, mild vibration. No group preferred vibration over a stable environment. However, Ss raised in a vibrating environment from 1-21

days of age showed significantly less tendency to avoid vibration than controls, whether tested 10 days after exposure to vibration or at 80 days of age. The results were consistent with a critical age period hypothesis.—*Journal abstract.*

7761. Winston, Harvey D. (U. Minnesota) **Influence of genotype and infantile trauma on adult learning in the mouse.** *J. comp. physiol. Psychol.*, 1963, 56(3), 630-635.—This investigation was concerned with effects of infantile trauma and hereditary factors upon adult learning in 3 inbred mouse strains. $\frac{1}{2}$ the infant Ss in each strain received traumatic auditory stimulation, and $\frac{1}{2}$ were reared under standard conditions. Adult learning ability was examined by means of repeated trials in a 4-unit alley maze and in a water escape test. Significant strain differences in maze and water escape learning were observed, and Ss traumatized during infancy were significantly poorer in maze performance than control Ss. There was also a significant interaction between strain and infantile experience in their effect upon maze learning. There was no evidence for treatment effects or a strain-treatment interaction in the water escape test. (20 ref.)—*Journal abstract.*

REFLEXES & INSTINCTIVE BEHAVIOR

7762. Hinde, R. A., & Steel, E. A. (Cambridge U., England) **Selection of nest material by female canaries.** *Anim. Behav.*, 1962, 10(1-2), 67-75.—5 studies are reported on birds caged individually or in pairs. 2 sizes of nest cups and 2 types of cages were used. Nesting material was provided during the 12-minute watches which were made 2-4 times weekly. Birds not actively building showed no preference between grass and feathers. Females treated with estrogen, building in large cups, select mostly grass. Addition of progesterone does not effect this preference. In normal building, the female uses a larger proportion of feathers as the egg-lying date approaches. There is no regular correlation between time spent sitting on the nest and proportion of feathers carried.—*W. J. Coppock.*

7763. Maier, Richard A. (Kansas State U.) **Maternal behavior in the domestic hen: The role of pretest restriction of movement.** *J. comp. physiol. Psychol.*, 1963, 56(2), 350-356.—3 experiments demonstrated that pretest restriction of movement of broody hens significantly affects direction and duration, but not intensity, of broody responses. Restriction of hens while chicks were unrestricted resulted in indiscriminate brooding when hens were released, and indiscriminate clucking to recorded chick sounds. Failure to differentiate familiar chicks is attributed to the hen's limited opportunity to organize her brood under restrictive conditions. Restriction of both hens and chicks, so that hens could not escape from chicks when broodiness began to dissipate, resulted in longer periods of broodiness. A 4th experiment demonstrated that when hens are presented with increasing complexities of cues from familiar chicks, intensity (clucking rate) increases linearly with number of cues, regardless of pretest restriction conditions. (22 ref.)—*Journal abstract.*

7764. Maier, Richard A. (Kansas State U.) **Maternal behavior in the domestic hen: The role of physical contact.** *J. comp. physiol. Psychol.*, 1963, 56(2), 357-361.—In 3 experiments the development

of broodiness was studied in relation to restriction of physical contact between hen and chicks. Compared to control Ss, significantly fewer experimental Ss developed broodiness when isolated from physical contact with chicks by confinement in cages adjacent to chicks or above chicks (presumably normal position for brooding) and when contactual ventral surface of Ss was anesthetized to eliminate contact cues. In 3 parallel experiments on the maintenance of broodiness, it was found that Ss do not remain broody as long as control Ss when contact with chicks is eliminated by isolating chicks adjacent to or below Ss or by anesthetizing Ss contactual ventral surface.—*Journal abstract.*

7765. Schreiber, Bruno; Gualtierotti, Torquato, & Mainardi, Danilo. (U. Parma, Italy) **Some problems of cerebellar physiology in migratory and sedentary birds.** *Anim. Behav.*, 1962, 10(1-2), 42-47.—Cerebellar electrical responses in several hundred chronic pigeons and doves were studied to test a Coriolis force interpretation of homing. Both migratory and sedentary birds showed an increase in amplitude of discharge at the start of and during constant rotation. Amplitude was proportional to acceleration during rotation. Simultaneous EMG recording showed "the response was not influenced by simultaneous muscular activity." After rotation stopped, rhythmic spindle-shaped afterdischarges continued for several seconds in homing pigeons and homing doves; no such afterdischarges were evident in nonhoming varieties. The sensitivities demonstrated were in the order of 1000 times that calculated as minimal for a Coriolis interpretation of homing.—*W. J. Coppock.*

MOTIVATION & EMOTION

7766. Bolles, Robert C. (Hollins Coll.) **Effect of food deprivation upon the rat's behavior in its home cage.** *J. comp. physiol. Psychol.*, 1963, 56(2), 456-460.—15 rats were observed in their home cages by sampling their behavior across time to determine how activity varies with deprivation and as a function of the time of day. A hungry group was maintained for 12 days on a 24-hr. feeding cycle; the control group was maintained on ad lib. food and water. The activity of the hungry group was only found to differ from its own ad lib. baseline activity or from the activity of the control group on the last 4 deprivation days. At that time hungry Ss were significantly more active than control Ss, but the changed pattern of activity is attributed to conditioning rather than to a direct activating effect of deprivation.—*Journal abstract.*

7767. Hagamen, Wilbur D., Zitzmann, Eric K., & Reeves, Alexander G. (Cornell U. Medical Coll.) **Sexual mounting of diverse objects in a group of randomly selected, unoperated male cats.** *J. comp. physiol. Psychol.*, 1963, 56(2), 298-302.—60 unoperated male cats were tested for sexual mounting behavior. 30 mounted rabbits, and 11 of these mounted inanimate objects; however, these 30 cats appeared in the last 39 tested. 2 modifications of testing procedure responsible for this change were: (a) Ss were left alone in the experimental room for a longer time each day before testing, and (b) Ss were tested more intensively with rabbits and inanimate objects before exposure to an estrous female in the experimental

room. Ss' activity was as vigorous and persistent as that exhibited by any operated cats we have seen and, once established, occurred under the same variety of experimental conditions. It was not necessary to reinforce this behavior by presentation of an estrous female and repeated experience with female cats actually decreased the aberrant tendencies.—*Journal abstract.*

7768. Kissel, John W. (Mead Johnson Research Cent., Evansville, Ind.) **Nutating annular cage for measuring motor activity.** *Science*, 1963, 139 (Whole No. 3560), 1224-1225.—The construction of an activity-measuring device that utilizes a nutating annular animal enclosure is described. The instrument converts motor activity to numerical scores. With mice, the logarithms of these scores assume a normal distribution. A 2nd test occurring 1 day, week, or month after the 1st fails to exhibit any habituation of the animals.—*Journal abstract.*

7769. McReynolds, Paul. (Palo Alto VA Hosp., Calif.) **Exploratory behavior: A theoretical interpretation.** *Psychol. Rep.*, 1962, 11(2), 311-318.—A perceptual-cognitive interpretation is presented which considers 3 different motivational functions which exploration may serve: "(1) novelty-adjustive exploration; (2) novelty-seeking exploration; and (3) goal-oriented novelty-seeking exploration. The theoretical model conceptualizes novelty-adjustive exploration as reflecting an animal's attempt to assimilate novel perceptions. Novelty-seeking exploration is considered as serving to maintain an optimum rate of cognitive restructuring. The effects of previous experience on exploratory behavior were considered."—B. J. House.

7770. Nachman, Marvin. (U. California, Riverside) **Learned aversion to the taste of lithium chloride and generalization to other salts.** *J. comp. physiol. Psychol.*, 1963, 56(2), 343-349.—Rats given 1 10-min. trial of drinking LiCl learned to avoid drinking that substance again. The learned aversion to drinking LiCl was found to generalize most to the drinking of NaCl, and in lesser degrees, to the drinking of NH_4Cl , KCl, and H_2O . By repeated tests with NaCl, NH_4Cl , KCl, or H_2O , the learned drinking aversion was extinguished, and the extinction, particularly with NaCl, was found to generalize so that Ss would again drink LiCl. In 2-bottle preference tests, Ss were found to readily discriminate between LiCl and either NH_4Cl or KCl but to have difficulty in discriminating between LiCl and NaCl. These data were related to the electrophysiological responses of the chorda tympani to these salts.—*Journal abstract.*

7771. Prokasy, William F. (Pennsylvania State U.) **Berlyne's conflict theory and the acquisition of observing responses.** *Psychol. Rep.*, 1962, 11(2), 341-342.—Discussion of Berlyne's (see 37: 4664) interpretation of a study by Wehling and Prokasy (see 37: 2796).—B. J. House.

7772. Singer, Jerome E. (Pennsylvania State U.) **Sympathetic activation, drugs, and fear.** *J. comp. physiol. Psychol.*, 1963, 56(3), 612-615.—In a test of the hypothesis that the amount of emotional behavior displayed is a direct function of the degree of sympathetic activity, 72 naive albino rats were divided into 3 groups, each group being subjected to sympathetic activation via a drug injection:adrenalin

produced the highest activation, chlorpromazine the least, and placebo in between. Ss were exposed to 1 of 2 situations, fearful or nonfearful. In the fearful situation the adrenalin injected Ss were most frightened, the chlorpromazine least. In the nonfearful situation, the drug groups manifested no differential fright. (15 ref.)—*Journal abstract.*

7773. Spear, Norman E., & Hill, Winfred F. (Northwestern U.) **Methodological note: Excessive weight loss in rats living in activity wheels.** *Psychol. Rep.*, 1962, 11(2), 437-438.—Of 2 groups, of 15 rats each, placed on a 24-hr. feeding schedule, the group living in activity wheels lost significantly more weight than the group in regular living cages. This differential weight loss "has confounded any conclusion regarding the effects of combining activity drive with hunger drive and thus serves as a warning for future experiments in this area."—B. J. House.

7774. Wendt, Richard H., Lindsley, David F., Adey, W. Ross, & Fox, Stephen S. (U. California, Los Angeles) **Self-maintained visual stimulation in monkeys after long-term visual deprivation.** *Science*, 1963, 139 (Whole No. 3552), 336-338.—New-born monkeys reared in darkness for 16 mo., except for daily 1-hr. periods of exposure to unpatterned light, were allowed to press a lever to obtain unpatterned light. The animals showed apparently insatiable responding, at rates that were extremely high as compared with rates for normally reared control animals.—*Journal abstract.*

SENSORY PROCESSES

7775. Carr, W. J., & Caul, W. F. (Bucknell U.) **The effect of castration in rat upon the discrimination of sex odors.** *Anim. Behav.*, 1962, 10(1-2), 20-27.—A 2-choice discrimination apparatus presented odors from receptive or nonreceptive females adjacent to a functioning or nonfunctioning water bottle. Estrous was induced in the discriminanda by injections of estradiol, and tested for by placing them with vigorous males. 4 normal and 6 prepuberally castrated males came to discriminate between the odors 80% of the time and returned to a chance level when the discriminanda received no injections. Similarly, normal and ovariectomized females discriminated between odor of normal vs. castrated male. "Under the present conditions of measurement, both the rate at which the olfactory discrimination was established and the accuracy of the discrimination were independent of the gonadal state of both male and female rat."—W. J. Coppock.

7776. Falk, John L., & Titlebaum, Libby F. (Harvard School Public Health) **Saline solution preference in the rat: Further demonstrations.** *J. comp. physiol. Psychol.*, 1963, 56(2), 337-342.—A proposal of Deutsch and Jonest, explaining the rat's preference for hypotonic and isotonic NaCl solutions as an artifact proceeding from the reduced electrophysiological "water signal" generated by these solutions, was tested. The results of the brief-exposure preference test under water-deprivation and nondeprivation conditions, consecutive-fluids, and simultaneous-fluids acceptance tests failed to confirm their hypothesis. The preference for saline over water was demonstrated in 10 out of 11 nondeprived Ss. In the consecutive- and simultaneous-fluids acceptance tests,

the acceptability of saline over water was shown to increase progressively over testing sessions under water-deprivation conditions. (18 ref.)—*Journal abstract*.

7777. Hack, Martin H. (New York U. School Medicine) **Signal detection in the rat.** *Science*, 1963, 139(Whole No. 3556), 758-760.—An auditory detection experiment was performed with rats as Ss, and the data were analyzed with a signal detection model. Rats were run at fixed sound pressure levels, and their responses were partitioned so that operating characteristics could be constructed. Measures of detectability, $(d_e)^{\frac{1}{2}}$, were calculated from the operating characteristics, and show that $(d_e)^{\frac{1}{2}}$ is a function of sound pressure levels, rising as these levels rise.—*Journal abstract*.

7778. Hoshishima, Keiichiro; Yokoyama, Sada-suke, & Seto, Katsuo. (Fukushima Medical Coll., Japan) **Taste sensitivity in various strains of mice.** *Amer. J. Physiol.*, 1962, 202(6), 1200-1204.—Taste sensitivity for NaCl, saccharine, acetic acid, and phenylthiocarbamide was measured in 3 white and 3 black strains of mice and in mice with glandular malfunction. A white strain showed lowest thresholds for all substances, and a black strain showed the highest. White strains had generally lower thresholds except in the case of saccharine. Cauterization of the suprarenal body raised the threshold for acetic acid, but the other thresholds were unchanged. Reduction of thyroid and hepatic functions raised thresholds for all substances but NaCl.—*D. R. Peryam*.

7779. Jacobs, Gerald, H. (Indiana U.) **Spectral sensitivity and color vision of the squirrel monkey.** *J. comp. physiol. Psychol.*, 1963, 56(3), 616-621.—Psychophysical measures of visual function were obtained from 5 squirrel monkeys. Measurements of luminosity functions, Purkinje shift, neutral points, and Rayleigh match points were obtained in a 4-choice discrimination set-up. For this species, it was found that: (a) a Purkinje shift is easily demonstrated; (b) the photopic luminosity function has a peak within the range of the normal O but shows a relative sensitivity depression in the red and a sensitivity enhancement in the blue; (c) there is no true spectral neutral point, although there are discrimination losses at 480-495 μ , and (d) more red is required for a Rayleigh match than the normal O requires. It was concluded that protanomaly is characteristic of color vision in this species. (15 ref.)—*Journal abstract*.

7780. Kay, L. (U. Birmingham) **A plausible explanation of the bat's echo-location acuity.** *Anim. Behav.*, 1962, 10(1-2), 34-41.—A pulsed frequency modulation system is discussed as a possible basis of echo-location. The system creates difference frequencies in the bat's ears which are a function of bearing. These beats are generated when the reflected FM signals received by the ears are compared with a postulated low level repeat sweep generated by the bat whenever an echo he attends to is received. Such a system avoids the problems of extreme bandwidth required in time difference systems and is compatible with the performance of bats in the presence of masking noise.—*W. J. Coppock*.

7781. Martin, Paul; Romba, John J., & Gates, Hugh W. **A method for the study of hearing loss and recovery in rhesus monkeys.** *USA ordn. Hum.*

Engng. Lab. tech. Memo., 1962, No. 11-62. v, 31 p.—A method is described for the rapid and reliable measurement of the Rhesus monkey's auditory acuity. This method proved suitable for determining the animal's hearing loss and subsequent recovery. 2 important factors of the method were: (a) the controlled presentation of the pure tone stimulus through earphones which are affixed to the animal by means of a newly developed phone holding device, and (b) the provision for obtaining a clearly defined indicator response. The method was evaluated in terms of the exposure of a monkey to 1 gun-generated noise impulse. Post-exposure audiograms were obtained rapidly and without difficulty.—*USA OHEL*.

7782. Parriss, J. R. (University Coll., London, England) **Visual discrimination in the toad.** *Quart. J. exp. Psychol.*, 1963, 15(1), 13-21.—Using a method of successive discrimination, 10 toads (*Bufo bufo*), were trained to discriminate between horizontal and vertical rectangles each 5.0 \times 7.5 cm. After training, one optic nerve was severed in certain animals and the stumps pushed well apart to delay regeneration. The nonoperated animals retained their learning over the rest-period of 10 weeks at a level similar to training. The animals with 1 eye showed considerably less retention than the nonoperated animals.—*Journal abstract*.

7783. Rushforth, Norman B., Burnett, Allison L., & Maynard, Richard. (Western Reserve U., Cleveland, O.) **Behavior in Hydra: Contraction responses of Hydra pirardi to mechanical and light stimuli.** *Science*, 1963, 139(Whole No. 3556), 760-761.—Hydra pirardi contracts in response to light and mechanical agitation. The animals show a reduction in the number of contractions in response to mechanical agitation on repeated testing but continue to contract in response to a light stimulus. Excision of all the tentacles of the animal completely inhibits contraction in response to mechanical agitation but does not affect contraction in response to light. The results of these experiments suggest that Hydra pirardi has different receptors for light and for mechanical agitation and that the control mechanisms for the contraction responses to these 2 stimuli are independent.—*Journal abstract*.

7784. Shinkman, Paul G. (U. Michigan) **Visual depth discrimination in animals.** *Psychol. Bull.*, 1962, 59(6), 489-501.—"The capacity to react discriminatively to the distance of visual stimulus appears to characterize a great many species, ranging from insects to primates. Especially in the case of insects, birds, and rats, it is evident that displacement of the images on the retinal mosaic is a very important factor in depth discrimination."—*W. J. Meyer*.

7785. Tigner, James R., & Besser, Jerome S. (Wildlife Research Cent., Denver, Colo.) **A quantitative method for evaluating chemicals as rodent repellants on packaging materials.** *J. agr. food Chem.*, 1962, 10(6), 484-486.—An index of repellancy (R_{50}) is defined as the amount (mg. per square in.) of chemical applied to burlap bags that will deter 50% of hungry test animals (house mice) from penetrating to reach food for a period of 16-18 hours. All test animals were prequalified by penetrating untreated burlap in 2 consecutive exposures. Bags representing a log series of concentrations were prepared and each level was exposed to 10 animals. Using an adaptation

of the Litchfield-Wilcoxon method for determining dose-effect measurements, 3-7 concentrations required statistically to determine the R_{50} and its 95% confidence limits.—D. R. Peryam.

7786. Warren, Roslyn P. (Shimer Coll.) **Preference aversion in mice to bitter substance.** *Science*, 1963, 140 (Whole No. 3568), 808-809.—Preference-aversion functions demonstrable for sweet and salty stimuli have been found for a "bitter" substance, sucrose octaacetate, at individually specific concentrations for mice. The data support Schneirla's views correlating stimulus magnitudes and approach-withdrawal. The positive reinforcing value of this bitter substance as a weak stimulus is diminished with continuous exposure and no secondary reinforcement. Avoidance is related to intensity of stimulation rather than modality or postingestion effects.—*Journal abstract*.

7787. Young, Paul Thomas, & Schulte, Richard H. (U. Illinois) **Isohedonic contours and tongue activity in three gustatory areas of the rat.** *J. comp. physiol. Psychol.*, 1963, 56(3), 465-475.—Preferences were determined by recording tongue contacts with test fluids using subthreshold electrical currents. The up-and-down psychophysical method was used to determine hedonic equality between standard and comparison solutions. Preferences were observed and isohedonic contours plotted in 3 stimulus areas—sour-sweet, salt-sweet, bitter-sweet—for a group of 30 nondeprived rats. Low concentrations of the non-sweet solute may facilitate tongue activity relative to sucrose standard. With high concentrations in all 3 stimulus-areas activity was inhibited. The study shows that points along an isohedon are not equal in activating potential but that standard and comparison solutions are equally activating at a particular point within a stimulus area. The characteristics of isohedons are considered.—*Journal abstract*.

LEARNING

7788. Coppock, H. W., Meeks, W. A., & Huard, D. V. **Drug and strain effects of performance and reversal of a head-position habit.** (Arizona State U.) *J. comp. physiol. Psychol.*, 1963, 56(3), 551-557.—Drug effects on conditioning and extinction may be secondary consequences of effects on probability of errorless response (p) and probability of the pattern of error-plus-correction. A factorial design employed 112 rats to test effects of 7 Drugs, 2 Strains, 2 Dosages, and 2 Delays of reinforcement upon shock escape conditioning in a 2-choice situation. Mean rate of reversal learning (θ) was lowest under the drugs yielding the highest p during prereversal trials ($r = -.61$) and during the intertrial periods ($r = -.75$). Morphine increased p , presumably reducing stimulus variability by inhibiting peristaltic movements and minimizing error-plus-correlation prereversal trials. Hence reversal learning started with a weaker pattern, which during reversal was, by definition, a pattern of correct (plus-intertrial-response-toward-opposite-side). The effect of delay on drug groups is consistent with this hypothesis of a pattern of alternation. (16 ref.)—*Journal abstract*.

7789. Cotton, John W., & Jensen, Glen D. (U. California, Santa Barbara) **Successive acquisitions and extinctions in a T maze.** *J. exp. Psychol.*, 1963, 65(6), 546-551.—80 male albino rats received 20

trials of noncorrection training in a single unit T maze. Then randomly assigned groups of 20 Ss received 2 sessions of training including from zero to 2 acquisition sessions and the remainder of extinction sessions (in all 4 possible orders) after which all groups received an additional acquisition session and then a session of extinction. No evidence was found of inferior performance on Days 4 and 5 for groups receiving previous extinction trials. When groups were compared on trials for which previous numbers of reward were equated, there was some indication of superiority for groups having extinction trials on Days 2 and/or 3.—*Journal abstract*.

7790. Hill, Winfred F., & Spear, Norman E. (Northwestern U.) **A replication of overlearning and reversal in a T maze.** *J. exp. Psychol.*, 1963, 65(3), 317.—Rats were trained to criterion in a T maze and then given reversal training either with or without 140 trials of overtraining (16 Ss per group). The overtrained group required significantly more trials to reach the reversal criterion.—*Journal abstract*.

7791. Hiss, Richard H., & Thomas, David R. (Kent State U.) **Stimulus generalization as a function of testing procedure and response measure.** *J. exp. Psychol.*, 1963, 65(6), 587-592.—36 homing pigeons received 10 days of VI training with a CS of 550 $m\mu$ and then were tested for generalization in extinction. Group 1, Group 2, and Group 3 ($n = 9$ each) were run to a criterion of extinction at 550, 530, and 510 $m\mu$, respectively. Group 4 ($n = 9$) received a random presentation of the 3 stimuli for 1 hr. For all Ss during both training and testing 30-sec. stimulus-on periods were alternated with blackout periods of 10 sec., thus creating discrete trials. The measures employed were: number of responses on the 1st test trial, total responses to extinction (or during the test), latency of the 1st response during the 1st 5 trials to which responding occurred, and rate of responding during the 1st 5 trials to which responding occurred. For each measure a gradient was obtained from Group 4 and from the combination of Groups 1, 2, 3, each of which contributed 1 point to the curve. It was found that the comparison of stimuli during testing is neither essential for the creation of a reliable gradient nor is it effective in altering the resulting gradient in any consistent way.—*Journal abstract*.

7792. Kirk, Kathleen L., & Bitterman, M. E. (Bryn Mawr Coll.) **Habit reversal in the turtle.** *Quart. J. exp. Psychol.*, 1963, 15(1), 52-57.—2 groups of mature "painted" turtles were trained in a T maze. 1 group had 5 trials per day, with correct and incorrect turns reversed for each animal whenever it reached the criterion of 5 errorless trials on a given day. The 2nd group had 10 trials per day, with correct and incorrect turns reversed daily, irrespective of the performance of the animals. Only in the data for the 2nd group did there appear some indication of progressive improvement in habit reversal. The results are considered in relation to those obtained in analogous experiments with other species.—*Journal abstract*.

7793. Lockard, Joan S. (U. Wisconsin) **Choice of a warning signal or no warning signal in an unavoidable shock situation.** *J. comp. physiol.*

Psychol., 1963, 56(3), 526-530.—To test whether a warning signal followed by unavoidable shock becomes aversive, rats were tested individually in a 2-compartment grid shuttle box. Ss could run freely through interconnecting doors, but could not escape shock since the grid floors of both compartments were electrified simultaneously on every acquisition trial. A stimulus light came on in 1 chamber 5 sec. prior to shock for experimental Ss and at random times between shocks for control Ss. After acquisition, both groups were given extinction with only light and no shock. Control Ss spent about 50% of the trials in each compartment under both conditions. Experimental Ss eventually spent 90% of the trials during acquisition in the compartment with the warning light but only 50% late in extinction.—*Journal abstract.*

7794. McAllister, Wallace R., & McAllister, Dorothy E. (Syracuse U.) Increase over time in the stimulus generalization of acquired fear. *J. exp. Psychol.*, 1963, 65(6), 576-582.—Following classical fear conditioning, Ss were trained to jump a hurdle to escape the fear-eliciting stimuli. 2 groups were conditioned in the start box of the hurdle apparatus (Same CB) and 2 in a separate, but similar, conditioning box (Diff CB). Under each condition, 1 group had hurdle training after a 3-min., and the other, after a 24-hr., postconditioning delay. For the 2 Diff CB groups, hurdle training involved a generalized stimulus situation. All groups, except Group 3 min.-Diff CB, learned to jump the hurdle in 25 trials. The significant improvement in performance with an increase in postconditioning delay under the Diff CB, but not under the Same CB, condition was attributed to an increase in the strength of the fear response over time to generalized, but not to the original, stimuli.—*Journal abstract.*

7795. McDowell, A. A., & Brown, W. Lynn. (U. Texas) The learning mechanism in response shift learning set. *J. comp. physiol. Psychol.*, 1963, 56(3), 572-574.—12 male and 6 female rhesus monkeys were trained for 44 days on response shift learning set. For the next 8 days under Procedure A the object responded to on the initial trial was aired with a novel stimulus object and response to the novel stimulus object was rewarded, while under Procedure B the object not responded to on the initial trial was paired with a novel stimulus object and response to the object not responded to on the initial trial was rewarded. Analysis of results during the last 8 days of testing showed beyond the .001 significance level that the prepotent mechanism of learning in response shift learning set is behavioral inhibition of response to previously rewarded cues.—*Journal abstract.*

7796. Pieper, W. A., Garwood, Carolyn; Lewis, Donna, & Marx, Melvin H. (U. Missouri) Differential acquisition of an instrumental response in albino and hooded rats. *Psychol. Rep.*, 1962, 11(2), 425-426.—"Two groups of hooded and two groups of albino rats [N = 24] were harpress-trained, using 32% and 8% sucrose as reinforcer. While there was no statistically reliable interaction of Concentration by Strain, the effects of Strain, Trials, and Strain by Trials were reliable at the .01 level. These differences were interpreted as supporting the need for more thorough comparative investigations when dealing with complex interacting variables."—B. J. House.

7797. Putnam, C. D. (Cambridge U., England) The non-random behaviour of *Alleochara bilineata* Gyll. (Coleoptera: Staphylinidea) in a Y-maze with neither reward nor punishment in either arm. *Anim. Behav.*, 1962, 10(1-2), 118-125.—Over ½ of 72 adults showed a significant preference for a given side when given 20 consecutive choices in an initially washed and dried maze. The group showed equal left and right preferences. If alternation appeared on the 1st 2 trials, no preference for either side was shown on the 3rd. Possible explanations are considered and examples of similar behavior in other animals discussed.—W. J. Coppock.

7798. Schusterman, Ronald J., & Bernstein, Irwin S. (Yerkes Lab. Primate Biology) Response tendencies of gibbons in single and double alternation tasks. *Psychol. Rep.*, 1962, 11(2), 521-522.—Gibbons (N = 9) trained with either single alternation (SA) or double alternation (DA) of correct position remained at chance performance. Response tendencies of the SA animals shifted from position preference to response alternation while the DA animals persisted in position preference responses. Introduction of an object discrimination problem on alternate trials for 3 SA trained animals had no effect on alternation performance.—B. J. House.

7799. Smith, Jerome. (U. Connecticut) Tests of a transfer theory of alternation behavior. *Psychol. Rep.*, 1962, 11(2), 583-599.—In 5 experiments, alternation of rats (N = 87) on a T maze was measured after a variety of rearing procedures as a test of the hypothesis that alternation is related to the negative correlation in the environment between places recently visited and presence of food. Positive evidence was found in 1 experiment which showed more alternation in rats reared with scattered food than those reared with food always in 1 place, but a 2nd experiment failed to replicate these results. As negative evidence, no difference was found between rats running for food reward and those running for water although food was scattered and water always in the same place in the living cages. Other negative evidence was a failure to find less alternation among rats reared with a correlation between exploration within the living cage and shock. From these and other findings, the conclusion is drawn that "the evidence does not warrant . . . the substitution of transfer of training for any of the process explanations of alternation."—B. J. House.

7800. Thompson, Merrell E. (New Mexico State U.) Stimulus alternation, response repetition, and response alternation in a multiple-choice situation. *Psychol. Rep.*, 1962, 11(2), 523-527.—"Two groups of rats (one reinforced and one not reinforced) [N = 54] were given two daily trials for 12 days in a new type maze designed to separate response alternation and response repetition from stimulus alternation. Neither group alternated stimuli above chance. While the behavior of the nonreinforced Ss showed little change over the 12 days, reinforced Ss showed an increasing and significant response repetition and a decreasing tendency to alternate responses. The results indicate that perhaps a more appropriate explanation of Ss' behavior in the Cross T-maze may be in terms of response repetition rather than stimulus alternation."—B. J. House.

Conditioning

7801. Brimer, Charles J., & Kamin, Leon J. (McMaster U.) **Disinhibition, habituation, sensitization, and the conditioned emotional response.** *J. comp. physiol. Psychol.*, 1963, 56(3), 508-516.—The effect of prior unsignaled shock (preshock) on subsequent acquisition of an Estes-Skinner conditioned emotional response (CER) was explored in 80 rats. Preshock retarded acquisition of CER, but this was not attributable to habituation to the US; rather, preshock produced a tendency for S to accelerate responding in the presence of the CS. This tendency was related to the intensity of preshock, but varying preshock intensities affected baseline rates of operant behavior. Preshock did not influence CER acquisition when S was allowed to recover to its baseline rate of operant responding prior to CER training. Data were interpreted in terms of Pavlovian disinhibition. There was some evidence for a sensitizing effect of preshock.—*Journal abstract.*

7802. Griffard, C. D. (U. Pittsburgh) **Classical conditioning of the planarian *Phagocata gracilis* to water flow.** *J. comp. physiol. Psychol.*, 1963, 56(3), 597-600.—In an attempt to determine whether or not planaria can be conditioned, 40 planaria, *P. gracilis*, were studied. The experimental group received 250 pairings of water flow (CS) and shock (US). A shock control group received 250 exposures to the US and a flow control group received 250 exposures to the CS. A 3rd control group received no training but was tested in the same manner as the other groups. All Ss of a specific group were given 25 test exposures to the CS from 10-15 hr. after training. The difference in the performance of the experimental group as compared with all other groups was significant at the .005 level. Additional evidence indicated that some sensitization may have occurred in the shock control group. The extent to which sensitization influenced the results for the experimental group is uncertain and therefore an interpretation in favor of classical conditioning is considered equivocal.—*Journal abstract.*

7803. Jarrard, Leonard E. (Washington & Lee U.) **Effects of X irradiation operant behavior in the rat.** *J. comp. physiol. Psychol.*, 1963, 56(3), 608-611.—2 groups of 24 rats each were trained to press a bar, one for food and one to avoid shock. After considerable training, each group was divided into 4 equated subgroups that were exposed to 0, 100, 300, and 500 r., respectively. Performance of Ss in the shock avoidance situation did not change after irradiation but performance of Ss working for food was affected. In a food consumption study using the same X irradiation levels as the operant behavior study, significant changes in food consumption were obtained at lower radiation levels than those needed to cause significant changes in bar pressing for food. At the higher radiation levels significant changes in food consumption persisted longer than changes in operant behavior.—*Journal abstract.*

7804. Kamin, Leon J., & Schaub, Ronald E. (McMaster U.) **Effects of conditioned stimulus intensity on the conditioned emotional response.** *J. comp. physiol. Psychol.*, 1963, 56(3), 502-507.—Effects of CS intensity on conditioned emotional response (CER) were explored with 38 rats. CS was white noise. The 1st study, with a delayed condition-

ing procedure, produced a positive monotonic function relating conditioning to CS intensity. When extinction was explored with a factorial design (to separate learning from performance), the only effect was a generalization decrement; changing CS intensity accelerated extinction. The 2nd study, with a trace conditioning procedure, resulted in complete suppression to the trace of an intense CS. There was no conditioning to the trace of the same weak CS which produced a CER under delayed conditioning. Trace conditioning seems to depend on the magnitude of a decaying neural trace, itself a positive function of CS intensity.—*Journal abstract.*

7805. Kamin, Leon J. (McMaster U.) **Backward conditioning and the conditioned emotional response.** *J. comp. physiol. Psychol.*, 1963, 56(3), 517-519.—Previous research (Singh, 1959) had indicated very successful backward conditioning of a conditioned emotional response (CER). This result cast grave doubt on the use of the CER for the analysis of Pavlovian conditioning. 2 studies are reported which find no evidence for a backward CER. Re-examination of the earlier data indicated a fundamental procedural variation which separates Singh's work from other CER studies. The CER proper still serves for the analysis of Pavlovian conditioning.—*Journal abstract.*

7806. Klinman, Cynthia S., & Bitterman, M. E. (Bryn Mawr Coll.) **Classical conditioning in the fish: The CS-US interval.** *J. comp. physiol. Psychol.*, 1963, 56(3), 578-583.—Prompted by discrepant earlier findings, 3 experiments were conducted on the role of the CS-US interval (0.5, 2.0, or 4.0 sec.) in the classical conditioning of fish—1 with 54 *Mollies* given massed training (1.5 min. between trials), a 2nd with 54 *Mollies* given more spaced training (4 min. between trials), and a 3rd with goldfish given massed training. Probability and magnitude of response to the CS declined from a maximum at 0.5 sec. in the 1st experiment, but were not significantly related to the CS-US interval in the other 2. Latency of response was least at the 0.5-sec. interval in each case. The results are consistent with the Pavlovian interpretation of delayed conditioning.—*Journal abstract.*

7807. Reynolds, Herbert H. (Baylor U.) **Effect of rearing and habitation in social isolation on performance of an escape task.** *J. comp. physiol. Psychol.*, 1963, 56(3), 520-525.—20 rats were raised in isolation and 20 in a state of companionship (matched litter mates). During performance of an escape task immediately following learning, the 2 groups of Ss differed at the .01 level. When 10 Ss from each group were changed to the opposite social state, performance of Ss reared as companions did not change significantly, while performance of Ss reared as isolates improved to a statistically significant extent. Upon return to the state of rearing, Ss reared as companions showed no change in performance; conversely, those Ss reared in isolation showed a significant decrement. Weight differences of the 2 groups were reversed during experimentation, indicating the toll of continued stress in the case of experimental isolates.—*Journal abstract.*

7808. Segal, Evalyn F., & Holloway, Stephen M. (San Diego State Coll.) **Timing behavior in rats with water drinking as a mediator.** *Science*, 1963,

140 (Whole No. 3569), 888-889.—Rats, reinforced for spacing their responses 20 sec. apart, used water-drinking as a means of "pacing" their response rate. "Timing" may be based on mediating response sequences such as drinking.—*Journal abstract.*

7809. Shafer, James N., & Corman, Charles D. (West Virginia U.) **Response of planaria to shock.** *J. comp. physiol. Psychol.*, 1963, 56(3), 601-603.—The study investigated the relationship between CRs of planaria as described in previous conditioning experiments and orienting response of planaria in an electrical field. 2 groups of 10 Ss were subjected to either a 12 ma. or a 28 ma. shock. The response of the planaria, either cephalic turning or longitudinal contraction, was found to be a function of the head orientation in regard to the polarity of the electrodes, although the responses were more difficult to discriminate in the high intensity group. The differential use of the 2 responses as URs was suggested, as well as the need for a clearer understanding of the mechanisms underlying the responses.—*Journal abstract.*

7810. van Sommers, Peter. (Harvard U.) **Air-motivated behavior in the turtle.** *J. comp. physiol. Psychol.*, 1963, 56(3), 590-596.—Immature turtles were trained to depress a lever to secure air while submerged in water. Rate of responding was inversely related to duration of exposure to air following each response. Periodic extinction produced a decline in rate during extinction and compensatory increases during continuous reinforcement. Ss responded less for air containing 10% carbon dioxide. Rate of responding increased when Ss' diets were augmented with uncooked meat, and there was an increase by a factor of approximately 2 in the rate of lever pressing with a 10° C. rise in temperature. This latter phenomenon may be mediated by direct effects of temperature on external respiration, but is probably not related to change in uptake of oxygen from water immersing Ss.—*Journal abstract.*

Discrimination

7811. Bradley, Jack I., & George, Ronald J. (Long Beach State Coll.) **Conditions influencing latent learning.** *Psychol. Rep.*, 1962, 11(2), 499-505.—51 rats were trained on a T maze under water deprivation with water on both sides and food on one side. After 24 or 48 trials under water deprivation, Ss were given discrimination training under food deprivation. $\frac{1}{2}$ the rats had drive discrimination training in a Skinner box prior to the water deprivation trials. A control group of 14 rats received only discrimination training under hunger drive. "When 24 and 48 trial groups were compared in terms of proportions of correct responses on the first critical trial significant differences were found, demonstrating learning by the 24-trial group only. When the effect of drive discrimination training was considered, the differences were significant for the 24-trial groups. It was also found that the pretrained 24-trial group learned in significantly fewer trials than the other groups."—B. J. House.

7812. Cross, Henry A., & Rankin, Richard J. (Oklahoma State U.) **Tactile generalization in the rat.** *Psychol. Rep.*, 1962, 11(2), 343-346.—"Sixty rats were given training under 22-hr. water deprivation in a straight alley covered with 100-grit emery

cloth. Subsequently, 20 Ss each were extinguished in alleys covered with 60-grit, 100-grit, and 150-grit emery cloth, respectively. Although the predicted generalization was observed, it was transitory in its effect, reaching its maximum level on extinction Trial 4."—B. J. House.

7813. Ganz, Leo. (U. Chicago) **Effect of an anchor stimulus on the stimulus generalization gradient.** *J. exp. Psychol.*, 1963, 65(3), 270-279.—Rhesus macaques were trained to press a key differentially to 2 monochromatic hues 150 m μ apart in wave length. The stimuli were presented through contact lens diffusers. S^a was presented under a 15-sec. variable interval schedule of positive reinforcement (5% sucrose solution) and S^a was presented under a 15-sec. delay-of-reinforcement schedule. Generalization was measured to the intervening hues, covered in 20-m μ steps. The generalization testing was preceded by 1 hr. of stimulus exposure and a 10-min. period of dark adaptation. During stimulus exposure, Ss sat in the primate chair, head restrained, wearing the contact lens diffusers, and exposed to a repeating cycle of hues. It was found that when stimulus exposure consisted of colors within 20 m μ above and below S^a, response rate during generalization testing was consistently enhanced at S^a.—*Journal abstract.*

7814. Hoffman, Howard S., & Fleshler, Morton. (Pennsylvania State U.) **Discrimination and stimulus generalization of approach, of avoidance, and of approach and avoidance during conflict.** *J. exp. Psychol.*, 1963, 65(3), 280-291.—1 group of rats was trained on approach (plate press to obtain food), a 2nd group was trained on avoidance (bar press to prevent shock), and a 3rd group was trained on both responses. For all 3 groups the discriminative stimulus was a 3500-cps tone. During subsequent tests for stimulus generalization, it was found that approach generalized more broadly than avoidance, but Ss learned to discriminate more rapidly for approach than for avoidance. In the tests during approach-avoidance conflict (Group 3), displacement was observed despite the fact that the gradient of approach was higher everywhere than the gradient of avoidance. While the results conform to certain features of Miller's theory of displacement, they also indicate the need for revisions. In particular, they suggest that conditioned suppression plays an important role in determining behavior during conflict.—*Journal abstract.*

7815. Kalish, Harry I., & Haber, Audrey. (State U. New York, Long Island Cent.) **Generalization: I. Generalization gradients from single and multiple stimulus points. II. Generalization of inhibition.** *J. exp. Psychol.*, 1963, 65(2), 176-181.—35 pigeons were trained to peck at a monochromatic stimulus of 550 m μ . Ss were then assigned to a group and extinguished to one of the following stimuli: 550, 540, 530, 520, 510, and 490 m μ . on each of 2 successive days. Gradients of generalization (single stimulus) from the mean total number of responses during extinction, were contrasted with a comparable gradient from Guttman and Kalish (1956) in which Ss sampled over the entire range of stimuli (multiple stimulus). The gradients showed marked differences which were discussed. Postextinction gradients were obtained for the 2nd part of the study by permitting

Ss to sample over the range of stimuli from 510 to 550 in 10-m μ . steps (including 490 m μ). The obtained gradients were compared with gradients generated from a "mirror-image" hypothesis of generalized inhibition. Certain marked discrepancies were observed between the predicted and obtained gradients which were supported by other studies of generalization inhibition.—*Journal abstract.*

7816. Kehoe, Jacsue. (Brown U.) Effects of prior and interpolated learning on retention in pigeons. *J. exp. Psychol.*, 1963, 65(6), 537-545.—A discrimination situation was developed for pigeons which would permit the investigation of retention problems in the animal laboratory. Changes in Retroactive and Proactive Inhibition (RI and PI) were studied as a function of the length of the retention interval (1, 10, or 30 days). A 5-key discrete-trial situation was employed in which a task was defined by the key color that was associated with reinforcement. Comparison of the number of correct responses made by the various groups on Day 1 of relearning permits the following conclusions: (a) Retroactive Inhibition was very prominent at all retention intervals. (b) The RI Ss relearning after a 30-day interval performed better than those relearning after a 1- or 10-day interval. (c) Ss learning an additional task prior to the task to be recalled made as many correct responses during the retention test as did control Ss. That is, no Proactive Inhibition was evident. (d) Both PI and control Ss relearning after a 30-day interval performed more poorly at recall than did those Ss relearning after a 1- or 10-day interval—a trend opposite to that shown by the Ss in the RI condition. A supplementary experiment showed that even when the number of prior tasks was increased from 1 to 2, no PI was evident after a 30-day interval—the only interval tested under this special interference condition.—*Journal abstract.*

7817. Michels, K. M., Pittman, G. G., Hitchcock, L., Jr., & Brown, D. R. (Purdue U.) Visual discrimination: Tree squirrels and quantified stimulus dimensions. *Percept. mot. Skills*, 1962, 15(2), 443-450.—This study was concerned with the perceptual learning ability of the tree squirrel and the relative discrimination difficulty for planar figures as a function of their physical dimensions. A modification of the Wisconsin General Test Apparatus and 12 animals representing 2 species of tree squirrels were used. Patterns with 4 sides proved most difficult, those with 5 sides were of medium difficulty, and those with 6 and 7 sides were easier. A correlation analysis indicated that areal symmetry and axial rotation were also important figure dimensions for discrimination.—*W. H. Guertin.*

7818. Pavlik, William B., & Born, David G. (Rutgers U.) Partial reinforcement effects in selective learning. *Psychol. Rep.*, 1962, 11(2), 575-580.—"Four groups of albino rats [$N=40$] were given 180 training trials in a brightness discrimination task [in a Y-maze] under four different schedules of reinforcement of the two responses: 100:0, 100:50, 50:0, and 67:33. Free and forced trials were employed such that each S made an equal number of positive and negative responses. Following training, 60 free extinction trials were given. Analyses of choice data from free trials indicate that the 100:0 group made significantly more positive responses than any

of the partial reinforcement groups during both training and extinction. When extinction performance was corrected for differences in training level, no group differences and no significant decrements in choice performance occurred during the extinction period. Possible effects of training differences in relative frequencies of negative responses upon subsequent extinction performance were suggested."—*B. J. House.*

7819. Thompson, Merrell E. (New Mexico State U.) Stimulus generalization of an instrumental response learned under distributed practice. *Psychol. Rep.*, 1962, 11(2), 471-476.—"One group of 80 white rats was trained to open a door in the center of a white circle, 20 sq. cm. in area. Subgroups of 20 were then given 40 extinction trials on circles of 20, 32, 50, and 79 sq. cm. Another group of 80 rats were trained on the 79-sq. cm. circle and subgroups were tested on circles of 79, 50, 32, and 20 sq. cm. Three measures of stimulus generalization were applied. None of the measures yielded gradients showing decreasing amount of generalization as a function of difference in size of test stimulus from training stimulus." Results are contrasted with those from a similar study by Grice and Saltz showing generalization gradients following massed trials.—*B. J. House.*

Avoidance

7820. Brush, F. Robert; Myer, James S., & Palmer, Michael E. (U. Pennsylvania) Effects of kind of prior training and intersession interval upon subsequent avoidance learning. *J. comp. physiol. Psychol.*, 1963, 56(3), 539-545.—4 experiments, which used shuttle box avoidance training of rats, were conducted to isolate the antecedent conditions that produce the U shaped relation between relearning of an incompletely learned avoidance response and intersession interval. In Experiment 1 the relation was confirmed. Experiment 2 showed that the shock stress of original avoidance training is insufficient to produce the U shaped relation. Experiment 3 demonstrated that instrumental avoidance responding is not a necessary condition for the occurrence of the U shaped relation, and suggested that fear conditioned to the CS is the principal controlling factor. Experiment 4 showed that pseudoconditioning is not sufficient to account for these results. An interpretation postulating a "parasympathetic overreaction" following fear conditioning was offered.—*Journal abstract.*

7821. Busch, R. D., Rholes, F. H., Jr., Reynolds, H. H., & Koestler, F. G. The relationship between skin temperature and performance in the Java monkey. *Holloman USAF ARL tech. Docum. Rep.*, 1962, No. 62-21. vi, 13 p.—4 male Java monkeys (macaque iris), trained to perform a continuous avoidance task, were used in an exploratory study of diurnal skin temperature changes and their relationship to avoidance behavior. Significant diurnal skin temperature changes were detected, and a relationship with performance was shown to exist.—*USAF ARL.*

7822. Halas, Edward S., Mulry, Ray C., & DeBoer, Margaret. (U. North Dakota) Some problems involved in conditioning planaria: Electrical polarity. *Psychol. Rep.*, 1962, 11(2), 395-398.—"Twenty planaria were randomly divided into two

groups and then trained in a narrow trough to approach a non-preferred light. Electrodes were mounted at each end of the trough. For Group I, the electrode at the right end was always negative whereas, for Group II, the electrode at the right end was always positive. Planaria were found to be more sensitive to an electrical current when they were approaching the anode as compared to when they were approaching the cathode. Sensitivity was measured by the number of electrical shocks and time required to induce the planaria to reverse their direction of travel. The findings suggest that one or more variables are not properly controlled in studies attempting to condition planaria."—B. J. House.

7823. Kamin, L. J., Brimer, C. J., & Black, A. H. (McMaster U.) Conditioned suppression as a monitor of fear of the CS in the course of avoidance training. *J. comp. physiol. Psychol.*, 1963, 56 (3), 497-501.—2 studies monitored with an independent measure fear of the CS during acquisition and extinction of a shuttle-box avoidance response by rats. Rats were first trained to bar press in a Skinner box, then subgroups were trained to various criteria of acquisition and extinction of avoidance; finally the suppressant effect of CS presentation in the Skinner box was observed. The technique yielded a monotonic function relating fear of the CS to number of CS-US pairings. Prolonged extinction training of the avoidance response was associated with decreased fear of the CS, but Ss trained to a moderate extinction criterion were very fearful of the CS. The function relating fear to avoidance acquisition criterion was U shaped.—*Journal abstract*.

7824. Pearl, Jack, & Edwards, Robert E. (Sterling-Winthrop Research Inst.) Delayed avoidance conditioning: Warning stimulus (CS) duration. *Psychol. Rep.*, 1962, 11(2), 375-380.—"The hypothesis that long stimulus durations would facilitate the acquisition of discriminated avoidance behavior was tested, using 5 groups of 10 rats each in Skinner boxes. Experimental groups trained on a 20- or 60-sec. CS avoided significantly more frequently than did a 5-sec. group. But when the experimental groups were abruptly changed to a 5-sec. CS, their superiority disappeared. An additional group, gradually shifted from 60 to 5 sec., retained its superiority over a 5-sec. control group. These results, which are opposed to those obtained in shuttlebox avoidance experiments, are explained as attributable to an antagonism between shock-preparatory and lever-pressing responses which provide similar proprioceptive feedback."—B. J. House.

7825. van Sommers, Peter. (Harvard U.) Carbon dioxide escape and avoidance behavior in the brown rat. *J. comp. physiol. Psychol.*, 1963, 56(3), 584-589.—Rats were restrained in a small chamber through which various gas mixtures could be pumped. 3 rats were exposed to concentrations of carbon dioxide of 8%, 10%, and 15%. They successfully learned to escape regularly for 30-sec. periods by touching a metal tube. They were subsequently trained to avoid the onset of air containing similar carbon dioxide concentrations by pressing a panel. The functions relating response measures to concentrations were monotonic but curvilinear. The threshold for escape behavior appeared to be slightly below 8%.—*Journal abstract*.

7826. Wodinsky, Jerome; Behrend, Erika R., & Bitterman, M. E. (Lerner Marine Lab., Bimini, Bahamas) Avoidance-conditioning in two species of fish. *Anim. Behav.*, 1962, 10(1-2), 76-78.—Groups of goldfish and Beau Gregories were trained in a shuttle-box to avoid a shock when a light appeared in the compartment occupied by the fish. CS-US intervals ranged between 1.25 and 40 sec. Mean days to criterion of 9 avoidances increased progressively in both species as CS-US interval decreased, with the Beau Gregories but not the goldfish performing successfully at an interval of 1.25 sec. "It is noteworthy that at every CS-US interval, the species which learned more rapidly showed a higher latency of response on the criterion day."—W. J. Coppock.

Reinforcement

7827. Birch, David; Allison, James K., & House, Robert F. (U. Michigan) Extinction performance following discrimination training. *J. exp. Psychol.*, 1963, 65(2), 148-155.—The resistance to extinction of the positive stimulus in discrimination learning was evaluated in 2 experiments using rat and single stimulus presentation on an elevated runway. In Experiment I, discrimination groups received reinforcement to white and nonreinforcement to gray (WG) or black (WB). Reference groups received all trials to white under 100% (W+ and w+ which differ in number of trials) or 50% (W±) reinforcement. Both mean log speed of approach and parameter estimates from the extinction curves showed (Tukey tests) the extinction performance of the discrimination groups as more similar to W+ and w+ than to W±. Experiment II yielded comparable results for WG and WB for both the approach and an additional goal platform measure.—*Journal abstract*.

7828. Capaldi, E. J., & Stanley, Larry R. (U. Texas) Temporal properties of reinforcement aftereffects. *J. exp. Psychol.*, 1963, 65(2), 169-175.—Pattern running performance as a function of intertrial interval was investigated in 3 separate experiments which employed rats trained in a straight alley under alternating partial reinforcement. In the initial experiment speed of running on the nonreinforced trials late in training was equivalent for the 15-sec. and 20-min. intertrial interval groups, as it was for the 2-min. and 10-min. groups; however, the former groups, as it was for the 2-min. and 10-min. groups; however, the former groups ran more slowly on these trials than did the latter ones. Substantially similar results were obtained in the subsequent experiments. On the basis of these results the tenability of the Hull-Sheffield temporal assumptions was questioned and new temporal assumptions were advanced.—*Journal abstract*.

7829. Capaldi, E. J., & Wargo, Patricia. (U. Texas) Effect of transitions from nonreinforced to reinforced trials under spaced-trial conditions. *J. exp. Psychol.*, 1963, 65(3), 318-319.—2 groups of 11 rats each were trained to traverse a straight alley under partial reinforcement, the intertrial interval being 20 min. in acquisition and extinction. For Group SA (single alternation) the number of transitions from nonreinforced to reinforced trials was greater than for Group R (random training). Group SA was considerably more resistant to extinction than Group R. Since these results are consistent with

deductions available from the Hull-Sheffield hypothesis, it was concluded that they offer a basis for assuming that aftereffects remain functional for at least 20 min.—*Journal abstract.*

7830. Church, Russell M. (Brown U.) **Effect of relative skill on the amount of competitive facilitation.** *Psychol. Rep.*, 1962, 11(2), 603-614.—A study of "the effect of a competitive schedule of reinforcement on the response rate of rats in adjacent lever boxes. On the average of every 30 sec. a reinforcement became available, and the first of 2 experimental Ss to make a response in a lever box received the food pellet. Each of the experimental Ss was matched with a control S that received the same number and temporal order of reinforcements, following a response. . . . Ss in the competitive situation showed an increase in response rate considerably greater than the matched control Ss. Within broad limits, the amount of competitive facilitation was negatively related to the relative skill of the S. . . . As the length of the contest was increased [by requiring 1, 3, or 9 responses] the probability was increased that one S would receive all the reinforcements and that the other S would extinguish. The results of the experiments were considered to be similar to those of previous work on variable interval schedules of reinforcement with 'limited hold.'"—B. J. House.

7831. Fowler, Harry. (U. Pittsburgh) **Facilitation and inhibition of performance by punishment: The effects of shock intensity and distribution of trials.** *J. comp. physiol. Psychol.*, 1963, 56(3), 531-538.—To assess the possible dynamogenic effect of punishment on performance, 10 groups of 10 hungry rats each were run in an alley to food and 1 of 5 different strengths of shock at the goal (0-110 v.) on each of 80 massed or distributed training trials. By the end of training, distribution of speeds for each shock condition was bimodal: approximately $\frac{1}{2}$ of the Ss of each group were slowed down by shock and $\frac{1}{2}$ were speeded up, with these effects being generally greater the greater the shock intensity. The facilitation and inhibition of speeds were highly related to compatible and incompatible responses elicited by shock at the goal, a fact which fits well with S-R reinforcement theory.—*Journal abstract.*

7832. Hill, Winfred F., Cotton, John W., & Clayton, Keith N. (Northwestern U.) **Effect of rewarded and nonrewarded incorrect trials on T maze learning.** *J. comp. physiol. Psychol.*, 1963, 56(3), 489-496.—6 groups of 16 rats received either 0 or 8 rewarded trials and either 0, 8, or 16 nonrewarded trials on incorrect side of T maze; all received 16 rewarded trials on the correct side. Reward on the incorrect side affected differential speeds but not choices. Nonrewards on incorrect side increased frequency of correct choices, but amount made no difference. 100% reward on both sides produced no preference for the more frequently rewarded side. Experiment 2 replicated this finding and showed a significant preference for the less frequent side. In Experiment 3, no preference was found between the 2 sides, one experienced 16 times and the other 8, either with 50% reward on both sides or with 100% reward on the more frequent and 75% on the less frequent side. (16 ref.)—*Journal abstract.*

7833. Hill, Winfred F., & Spear, Norman E. (Northwestern U.) **Extinction in a runway as a**

function of acquisition level and reinforcement percentage. *J. exp. Psychol.*, 1963, 65(5), 495-500.—Level of acquisition training (8, 16, 32, 64, and 128 trials) and percentage of food reinforcement (100% and 50% random) were combined factorially for 100 rats in a straight alley. Acquisition was by massed training and was followed by 28 trials of massed extinction on one day and 12 on the next. Running speed in late acquisition was an increasing function of training level, with no significant effect of percentage. Running speed early in extinction was also an increasing function of training. This effect disappeared as extinction progressed for the 100% but not for the 50% groups. These results do not support the hypothesis, suggested by previous studies, that resistance to extinction is and inverted U function of degree of training. (16 ref.)—*Journal abstract.*

7834. Jensen, Glen D. (De Paul U.) **Preference for bar pressing over "freeloading" as a function of number of rewarded presses.** *J. exp. Psychol.*, 1963, 65(5), 451-454.—200 rats were given a choice between eating pellets from a dish attached to the floor of a Skinner box or pressing a bar to earn pellets after 40, 80, 160, 320, 640, or 1280 rewarded presses. All but 1 of the rats left the food dish and resumed pressing the bar at some point during a 40-min. choice period. The mean percentage of all pellets eaten during the choice period that were earned by bar pressing was shown to be an increasing function of the number of rewarded presses made prior to the choice period.—*Journal abstract.*

7835. Marx, Melvin H., & Brownstein, Aaron J. (U. Missouri) **Effects of incentive magnitude on running speeds without competing responses in acquisition and extinction.** *J. exp. Psychol.*, 1963, 65(2), 182-189.—32 albino rats were given 1 trial daily in a 14-ft. runway for a total of 73 acquisition and 72 extinction trials. Trials with competing responses (stopping and/or reversing and retracing) were scored separately. Except for the slow running of the 8% sucrose group, running speed with gross competing responses thus eliminated did not consistently vary with percentage of sucrose reinforcement. However, it increased regularly during acquisition and decreased regularly during extinction. The data also indicate the role of competing responses to be markedly greater, in slowing performance, during extinction. It is concluded that changes in running can be directly produced by affecting the vigor of responding, and are not merely effected indirectly, by changes in the amount of interfering behavior.—*Journal abstract.*

7836. Marx, Melvin H., & Knarr, Frederick A. (U. Missouri) **Long-term development of reinforcing properties of a stimulus as a function of temporal relationship to food reinforcement.** *J. comp. physiol. Psychol.*, 1963, 56(3), 546-550.—24 rats were born and lived from 3 to 4 weeks in darkness. Different lightfeeding relationships were then initiated and continued for 22 weeks followed by 20 light-contingent bar pressing sessions, 1 per week. Results revealed that the group with light preceding food reinforcement responded more frequently than the other groups. However, the bar press output of this group declined over experimental sessions while the group with light interpolated between feeding sessions showed an increment over weeks; neither the

group with light concurrent with food reinforcement nor the control (no light) group varied appreciably from their original operant level. (16 ref.)—*Journal abstract.*

7837. McCain, Garvin; Love, Nancey, & Gruer, William. (Arlington State Coll.) Extinction as a function of a small number of partially reinforced trials. *Psychol. Rep.*, 1962, 11(2), 451-454.—"After preliminary exploration [of a straight-alley maze] 23 naive rats were divided into two groups. One group received a reinforced, a nonreinforced, then another reinforced trial. The second group received three reinforced trials. During extinction the partial reinforcement group ran faster. This was discussed in relation to Spence's and Amsel's analyses of partial reinforcement."—*B. J. House.*

7838. McHose, James H. (State U. Iowa) Effect of continued nonreinforcement on the frustration effect. *J. exp. Psychol.*, 1963, 65(5), 444-450.—A total of 72 preshift and 144 postshift trials in the double alley runway was given to 48 female hooded rats randomly assigned to the following 3 groups: Groups 100-50, 100-0, and 0-0, designated according to preshift and postshift percentage reinforcement in the 1st goal box (G_1). Following the introduction of nonreinforcement, 2nd alley starting speeds for both Group 100-0 and Group 100-50 on G_1 nonreinforced trials were enhanced. The facilitative effects of nonreinforcement dissipated for Group 100-0, but persisted for Group 100-50. Group 10-50 1st alley starting speeds increased while Group 100-0 speeds decreased following the introduction of nonreinforcement. The results were interpreted as supportive of the frustration theory assumption that the parameters of frustration are dependent upon the strength of reward expectancy in the 1st alley.—*Journal abstract.*

7839. Pieper, W. A., & Marx, Melvin H. (U. Missouri) Effects of within-session incentive contrast on instrumental acquisition and performance. *J. exp. Psychol.*, 1963, 65(6), 568-571.—3 groups of 10 rats each were magazine trained and bar press trained daily over 28 days. 10 min. of 1-min. fixed interval magazine presentations were followed by 10 min. of 1-min. fixed interval bar pressing. The group whose incentive was shifted up from magazine to bar press (4-11.3% sucrose) showed an initial depression of acquisition bar press rate but an eventual asymptotic facilitation, compared with the 11.3/11.3% controls. The group whose incentive was shifted down (32/11.3%) showed an initial (but unreliable) facilitation and an asymptotic depression. Interpretation of these results is suggested in terms of the development of discrimination between magazine and bar press incentives.—*Journal abstract.*

7840. Poshel, B. P. H. (Parke, Davis & Co., Ann Arbor, Mich.) Is centrally-elicited positive reinforcement associated with onset or termination of stimulation? *J. comp. physiol. Psychol.*, 1963, 56(3), 604-607.—Permanent electrodes were implanted in rewarding areas of the forebrain or hypothalamus of rats. 2 distinct patterns of electrical stimulation were then tested for rewarding effects by means of a self-stimulation technique. Patterns of stimulating current were identical in energy and duration, but were direct opposites in shape. Stimulus A increased gradually in intensity and then terminated suddenly from

peak stimulation; the onset of Stimulus B was sudden, and it terminated gradually from peak stimulation. Stimulus B sustained rates of self-stimulation consistently higher than did Stimulus A. On this basis, B must be judged more effective in eliciting reward than A. This finding attests that electrically elicited reward is associated with the onset of central stimulation rather than with its termination.—*Journal abstract.*

7841. Wischner, George J., Fowler, Harry, & Kushnick, Stephen A. (U. Pittsburgh) Effect of strength of punishment for "correct" or "incorrect" responses on visual discrimination performance. *J. exp. Psychol.*, 1963, 65(2), 131-138.—The purpose was to investigate the effect of variation in shock intensity on the acquisition of a black-white discrimination by 56 white rats in a situation involving shock for the correct or incorrect response, a non-correction procedure, and 2 different training methods (free-vs. forced-choice). Differences in outcome between training methods were negligible. Shock intensity functions showed that errors increased with increasing intensities for shock-right groups, decreased with increasing intensities for shock-wrong groups. All shock-right groups were inferior to no-shock controls, a finding in opposition to the generalization that shock for the correct response facilitates performance.—*Journal abstract.*

Motivation & Learning

7842. Babb, Harold. (Hobart & William Smith Coll.) Transfer between habits based on shock and thirst. *J. comp. physiol. Psychol.*, 1963, 56(2), 318-323.—6 groups of 12 hooded rats, $\frac{1}{2}$ male and $\frac{1}{2}$ female, were run in a straightalley on thirst motivation, or on successive combinations of these conditions, and were then extinguished, $\frac{1}{2}$ on thirst drive and $\frac{1}{2}$ not on thirst drive. Extinction data tended to indicate incomplete summation in transferring from shock to thirst or from thirst to shock. Transfer data did not differentiate between groups trained on or transferred to shock but did differentiate between those trained on or transferred to thirst. Ss transferred from shock to thirst training evidenced a general inhibition of running speed which was maintained throughout transfer trials.—*Journal abstract.*

7843. Goodrich, Kenneth P., Zaretsky, Herbert. (U. Pennsylvania) Running speed as a function of concentration of sucrose incentive during pre-training. *Psychol. Rep.*, 1962, 11(2), 463-468.—"Ss in each of three groups of rats [$N = 91$] were pre-trained to drink one of three sucrose solutions, 3%, 11%, or 32%. Subsequently all Ss received 60 acquisition trials in a runway apparatus to an 11% sucrose incentive. Runway data showed no evidence for either the 'elation' or 'depression' contrast effects reported by Collier and Marx (1959) in a bar-pressing situation. The most conservative conclusion would be that the three different pretraining conditions produced no differential effect on subsequent runway performance. There was suggestive evidence that the 32% condition produces faster running than either 3% or 11%."—*B. J. House.*

7844. Goodrich, Kenneth P. (U. Pennsylvania) Supplementary report: Running speed as a function of sucrose concentration in a prior free-drink-

ing period. *Psychol. Rep.*, 1962, 11(2), 528-530.—"Rats in two groups of 14 Ss each were given 7 days of drinking experience prior to runway training. On each day 20 cc. of either 32% or 11% sucrose solution were ingested in S's home cage. On the next day all Ss were rewarded with 11% solution in a runway. The results showed no contrast effect."—B. J. House.

7845. Martin, James G., Loewe, Eveline M., Hinkle, Allan E., & Fitzgerald, Marilyn L. (Chico State Coll.) Net approach gradient in approach-avoidance conflict. *J. exp. Psychol.*, 1963, 65(5), 520-521.—This experiment tested the implication from conflict theory that net approach tendencies decrease nearer the goal in approach-avoidance. 16 albino rats, trained previously to run to food in an alley while 45 hr. food deprived, were shocked near the goal box. 2 days later Ss were tested for approach tendencies at points far (F) and near (N) the goal by measuring strength of pull. Each S pulled for 4 trials, half in FNNF order, half in NFFN order. Mean pull in grams at the near point was significantly less than at the far point ($p < .01$), as predicted.—*Journal abstract*.

7846. Pavlik, William B., & Reynolds, William F. (Rutgers U.) Effects of deprivation schedule and reward magnitude on acquisition and extinction performance. *J. comp. physiol. Psychol.*, 1963, 56(2), 452-455.—80 female rats were given 80 training trials in a runway under 2 conditions of food deprivation combined factorially with 2 levels of reward magnitude, followed by 50 extinction trials during which half of the Ss in each group were tested under each deprivation condition. Analyses of running speeds at training asymptote and during various portions of extinction yield consistent results to the effect that both deprivation period and reward magnitude have significant effects upon running speed and that these effects are statistically independent. The results are interpreted as supporting Spence's suggestion that drive and incentive magnitude combine additively in determining reaction potential.—*Journal abstract*.

7847. Yarczower, Matthew; Freygold, Kap, & Blum, Norman. (U. Maryland) Effects of amount, percentage of reinforcement and deprivation condition on runway time. *Psychol. Rep.*, 1962, 11(2), 406.—In a $3 \times 2 \times 2$ factorial design with 60 rats, all 3 factors had significant effects on asymptotic running times. Interactions among the factors predicted by Amsel's frustration mechanism were not found.—B. J. House.

Complex Processes

7848. Behar, Isaac. (USA Medical Research Lab., Fort Knox, Ky.) Evaluation of cues in learning set formation in mangabeys. *Psychol. Rep.*, 1962, 11(2), 479-485.—"Six naive sooty mangabeys were given 300 object-discrimination problems. Six problems were presented daily of which two each lasted 4, 7, and 10 trials. Following the discrimination trials on each problem, a 'critical trial' was given in which either the positive or the negative stimulus was paired with a neutral stimulus. . . . Responses on the critical trials indicated the development of both approach and avoidance tendencies, although the former largely

exceeded the latter. This difference was interpreted in terms of the disparate frequency of response to the positive and negative stimuli during the discrimination trials." Results were similar to those from experiments with macaques.—B. J. House.

7849. Bowman, Robert E. (U. Wisconsin) Discrimination learning-set performance under intermittent and secondary reinforcement. *J. comp. physiol. Psychol.*, 1963, 56(2), 429-434.—The performance of experienced rhesus monkeys was measured in terms of latencies and percentage of correct responses at reward percentages of 100:0, 75:0, 50:0, and 25:0 on discrimination learning-set problems, both in the presence and absence of secondary reinforcing stimuli. Latencies increased significantly at the 2 lower reward percentages. Between-problem learning occurred except under conditions of 50:0 and 25:0 in the absence of secondary reinforcement, and percentage of correct responses with respect to the maximum possible declined with decline in reward percentage below 75:0. Within-problem learning occurred under all conditions. Some interpretation of the data with regard to response strategies was made.—*Journal abstract*.

7850. Brown, W. Lynn, & McDowell, A. A. (U. Texas) Response shift learning set in rhesus monkeys. *J. comp. physiol. Psychol.*, 1963, 56(2), 335-336.—15 adult male rhesus monkeys, survivors of a previous comprehensive study of whole-body irradiation effects, were tested on 24 object-quality discrimination problems each day for 40 days. 2 trials were given on each problem. Response to either object was rewarded on the initial trial of each problem. Response to the object not responded to on the initial trial was rewarded on the 2nd trial. While none of the effects involving radiation variables approached significance, improvement with practice was beyond the .001 significance level. These results demonstrate that rhesus monkeys can acquire a "response shift learning set."—*Journal abstract*.

7851. Butler, Robert A., & Woolpy, Jerome H. (U. Chicago) Visual attention in the rhesus monkey. *J. comp. physiol. Psychol.*, 1963, 56(2), 324-328.—Monkeys' viewing behavior to various 2-dimensional displays provided by slides and motion pictures was studied by a paired-comparison testing technique. The number of times and the total duration of time that S viewed each display in a 2-window cubicle were recorded automatically. Monkeys spent more time ($p < .01$) viewing motion pictures that were: (a) in focus, (b) brightly illuminated, (c) moving at normal rather than slower rates, (d) in color, and (e) spatially oriented in the proper manner. They watched automatically changing slides more than stationary slides ($p < .01$). The duration of individual viewing responses contributed more to total viewing time than did the number of viewing responses.—*Journal abstract*.

7852. Gleitman, Henry; Wilson, W. A., Jr., Herman, Magdalena M., & Rescorla, Robert A. (Swarthmore Coll.) Massing and within-delay position as factors in delayed-response performance. *J. comp. physiol. Psychol.*, 1963, 56(2), 445-451.—9 rhesus monkeys were tested on delayed response under 2 conditions of spacing of trials. Massing of trials led to poorer performance than that

obtained with widely spaced trials. Performance deteriorated more after a series of long-delay trials than after a series made up of an equal number of short-delay trials, leading to the conclusion that the deleterious effect of massing is at least partially a result of frustration or extinction. Spatial position in the testing cage acted as an error factor in determining response and was not generally used to "bridge the delay gap." (15 ref.)—*Journal abstract*.

7853. Lilly, John C. (Communication Research Inst., Miami, Fla.) **Distress call of the bottlenose dolphin: Stimuli and evoked behavioral responses.** *Science*, 1963, 139(Whole No. 3550), 116-118.—Analysis of the many different vocal productions of pairs of bottlenose dolphins (*Tursiops truncatus* Montagu) and the related behavior patterns shows that 1 pair of specific short (0.2-/0.6 sec.) whistles was consistently stimulated by physical distress. This call stimulated nearby animals to push the head of the distressed animal to the surface to breathe. After the animal breathed, a vocal exchange preceded other forms of aid.—*Journal abstract*.

7854. Poulter, Thomas C. (Stanford Research Inst., Menlo Park, Calif.) **Sonar signals of the sea lion.** *Science*, 1963, 139(Whole No. 3556), 753-755.—Tape recordings were made of the underwater noises of captive sea lions swimming in a concrete pool at night. When approaching pieces of fish that were thrown into the water, the sea lions emitted trains of sound signals like those of the bat and the porpoise. A detailed analysis of these noises shows that they meet the criteria of a pulse-modulated sonar system and, in fact, reveal an amazing sophistication so far as echo ranging is concerned.—*Journal abstract*.

7855. Rumbaugh, Duane M., & McQueeney, John A. (San Diego State Coll.) **Learning-set formation and discrimination reversal: Learning problems to criterion in the squirrel monkey.** *J. comp. physiol. Psychol.*, 1963, 56(2), 435-439.—The development of learning set (LS) by criterional training procedures and the development of discrimination reversal (DR) by traditional methods were studied in 4 squirrel monkeys. Each LS problem was learned to an intraproblem criterion of 20 correct responses in 25 trials. Training continued to an interproblem criterion. In subsequent DR training each S was trained to the criterion of 10 errorless and consecutive responses on reversal Trial 2. On the last 5 LS problems Trial 2 performance was 80% correct and Trial 2-6 performance was 89% correct. It is suggested that with the smooth-brained primate, such as the squirrel monkey, and subprimate mammals, LS might accrue more efficiently by criterional training methods than by administering a small and fixed number of trials per problem.—*Journal abstract*.

7856. Wenner, Adrian M. (U. Michigan) **Sound production during the waggle dance of the honey bee.** *Anim. Behav.*, 1962, 10(1-2), 79-95.—When bees that were marked while feeding after flights of up to 1230 meters, dance sounds were recorded and subsequently analyzed spectrographically. The pulsed sound of approximately 200 cps produced during the straight run of the dance is described and shown not to be an incidental result of vibration of the abdomen. The straight-run time and the number of sound pulses emitted correlated more with distance to food than

other components of the dance. The effect of wind showed that bees signal flight time to food, not return time.—*W. J. Copps*.

SOCIAL BEHAVIOR

7857. Bartholomew, George A., & Collias, Nicholas E. (U. California, Los Angeles) **The role of vocalization in the social behaviour of the northern elephant seal.** *Anim. Behav.*, 1962, 10(1-2), 7-10.—Observations and tape recordings were gathered on a herd of some 116 seals during the breeding season on a California island rookery. 2 groups of sounds with distinct structural characteristics appeared in adults. "Attraction sounds (mother to pup) are unpulsed, of high and variable pitch, and show clear harmonic structure. Threat sounds (both male and female) have an opposite type of structure; they are highly pulsed, of low and steady pitch, are harsh and lack clearcut harmonics." These findings are discussed in connection with ontogeny and evolution of vocalization in this seal.—*W. J. Copps*.

7858. Michael, Richard P., & Herbert, J. (Maudsley Hosp., London, England) **Menstrual cycle influences grooming behavior and sexual activity in the rhesus monkey.** *Science*, 1963, 140(Whole No. 3566), 500-501.—The time spent by the female rhesus monkey in grooming the male fluctuates rhythmically and reaches a minimum at mid-cycle. At this time the male's grooming activity reaches a maximum. The rhythmic changes in male mounting behavior, together with the males' and females' grooming cycles, are abolished by ovariectomy and have a hormonal basis.—*Journal abstract*.

7859. Wilson, James R., Kuehn, Robert E., & Beach, Frank A. (U. California) **Modification in the sexual behavior of male rats produced by changing the stimulus female.** *J. comp. physiol. Psychol.*, 1963, 56(3), 636-644.—25 male rats copulated with 25 estrous females until they reached an arbitrary criterion of sexual exhaustion. At this point replacement of the original female by a new estrous partner sometimes resulted in the resumption of mating activity and the achievement of 1 or more additional ejaculations. Removing and returning the original female had only a slight stimulating effect. Substitution of a female that had recently mated with another male was more likely to evoke renewal of sexual activity. The most effective procedure involved replacement of the original partner by an unmated estrous female. (20 ref.)—*Journal abstract*.

7860. Bernstein, Irwin S. (Yerkes Lab., Orange Park, Fla.) **Response to nesting materials of wild-born and captive-born chimpanzees.** *Anim. Behav.*, 1962, 10(1-2), 1-6.—Raters judged quality of nests constructed daily from supplied materials by individually caged adults. All 7 wild-born but only 8 of 17 captive-born animals built nests. 18 of the 21 built by wild-born animals were rated good; only 5 of the 54 built by captive-born were rated good. The 2 types of Ss showed equal freedom and ability to transport and manipulate the materials required in nest construction. Neither sex nor age differences appeared. The authors conclude that "nesting is not independent of experience in the chimpanzee."—*W. J. Copps*.

ABNORMAL BEHAVIOR

DEVELOPMENTAL PSYCHOLOGY

INFANCY

7861. **Franus, Edward.** *Jeszcze o reakcjach strachu niemowląt na widok i głos osoby nieznannej i zamaskowanej.* [More on infants' fear reactions at the sight and sound of an unknown and masked person.] *Psychol. wych.*, 1962, 5(4), 392-401.—Charlotte Buehler's experiments on fear in children were replicated with contradictory findings. A classification scheme of negative responses, which was more comprehensive than the original and based on Pavlovian theory, was responsible for the different results. Fear reaction to a masked person reached its peak between 6-7 mo., and reaction to an unknown person between 12-15 mo.—*H. Kaczkowski.*

7862. **Provence, Sally, & Lipton, Rose C.** (Yale U.) *Infants in institutions.* New York: International Univ. Press, 1962, xv, 191 p. \$5.00.—The learning experiences and developmental progress of 75 institutionalized infants in the 1st year of life were compared repeatedly with 75 babies reared in families. Procedures adopted included the Gessel Developmental Examination and the Hetzer-Wolf Baby Test, physical and neurological examinations and measurements, behavioral observations, the taking of case histories, and interviews with those responsible for the infant's care. Certain behavior patterns were found to be deviant in all institutionalized babies, other patterns of development were common to the 2 groups. It is concluded that severe deprivation of maternal care has an adverse effect upon the development of infants. Implications for both institutional and foster home mothering are offered.—*C. M. Franks.*

CHILDHOOD

7863. **Dennis, Wayne.** (Ed.) (Brooklyn Coll.) *Readings in child psychology.* (2nd ed.) Englewood Cliffs, N. J.: Prentice-Hall, 1963, xi, 532 p.—\$8.00 (paper).—A revision of the 1951 book containing parts which were not in the earlier edition. $\frac{1}{2}$ of the selections were published after 1951. The 54 selections are divided into 10 sections as follows: "Prenatal and Neonatal Behavior," "Perceptual-Motor Development," "Emotional Development," "Language Development," "Intellectual Development," "Personality Development," "Duration of the Effects of Early Experiences," "Biological Influences Upon Development," "Cultural Influences Upon Behavior," and "The Development of Stability in Behavior." Each selection is prefaced by a short explanatory paragraph by the editor.—*G. Deskin.*

7864. **Jakubowski, M.** *Zagadnienie samowychowawczej aktywności dziecka w ujęciu Janusza Korczaka.* [Janusz Korczak's ideas on the self-educating activity of the child.] *Psychol. wych.*, 1962, 5(4), 375-391.—The article reviews the life work of Janusz Korczak, a Polish pediatrician, who developed various methods and procedures to assist the self-development in orphans. His key premise was that self-rule in the orphanage enhanced self-development.—*H. Kaczkowski.*

7865. **Sethi, Janak.** *Children's fantasies.* *Res. Stud.*, U. Allahabad, 1962, 13, 18-24.—Fantasies of 40 boys, ages 5+ and 10+, were studied with the help of the Children's Apperception Test and free draw-

ings. The stories and the drawings were analyzed for content, level of fantasy, and organization of thought. The results show that children's fantasies at 5+ mainly revolve around the family; those at 10+ are in the area of the home. Fantasies at 5+ are marked by fear and peer group references; children of 10+ showed interest in outdoor life, novel situations, and reality orientation. Children at 10+ are more confident about themselves.—*U. Pareek.*

Learning

7866. **Anderson, C. C.** (U. Alberta) *The relationship between inhibition of motor response and cognitive performance.* *Brit. J. educ. Psychol.*, 1962, 32(3), 234-240.—A sample of Grade 8 pupils was given tests of motor inhibition, cognition, socioeconomic status, psychological control, and dogmatism. The hypothesis that capacity for motor inhibition is correlated with cognitive performance was supported, but not the hypothesis that this is related to child-rearing practices. (30 ref.)—*B. T. Jensen.*

7867. **Myers, Jerome L., & Myers, Nancy A.** (U. Massachusetts) *Secondary reinforcement in children as a function of conditioning associations, extinction percentages, and stimulus types.* *J. exp. Psychol.*, 1963, 65(5), 455-459.—96 preschool children were conditioned and extinguished in a free-operant situation. Extinction responses resulted in the presentation of either a light or a buzzer on either 20% or 100% of the trials. The extinction stimulus was 1 of 3 types: it was paired either with reward only during conditioning (PAS), or with reward and nonreward (MAS), or with nonreward (NAS) only. The PAS resulted in most extinction responses followed by the MAS and then the NAS. More responses resulted from 100% presentation of the PAS than under the other conditions. The light was more effective than the buzzer.—*Journal abstract.*

7868. **Reese, Hayne W.** (U. Buffalo) *Verbal mediation as a function of age level.* *Psychol. Bull.*, 1962, 59(6), 502-509.—A variety of experimental paradigms (reversal-nonreversal learning, transposition learning, etc.) indicate that young children evidence less mediational behavior than older children. Many variables have been shown to influence mediation, but it is not yet clear whether the emergence of mediational behavior is a voluntary or involuntary process, i.e., modifiable or unmodifiable.—*W. J. Meyer.*

7869. **Sugimura, T.** (Osaka Classification Office for Juvenile Delinquents, Japan) [Effect of degree of original learning and time interval between two tasks on response shift.] *Jap. J. Psychol.*, 1962, 33(3), 133-140.—Boys were trained on a simple 2-choice size of color discrimination, and $\frac{1}{2}$ were then shifted to the discrimination task alternate to the one on which trained. The remaining $\frac{1}{2}$ were shifted following a 30-min. rest. Findings suggest that response shift was easier in the 30-min. rest group but was somewhat dependent upon the criterion of original learning. This finding is discussed in terms of differential effects on associative connections of the rest period.—*A. Barclay.*

7870. **Zinchenko, V. P., & Ruzskaia, A. G.** (RSFSR Acad. Pedagogical Sciences) *Sravnitel'nyi analiz osiazaniia i zreniia: Soobshchenie XI.*

Uchit li ruka glaz? [Comparative analysis of touch and vision: Communication XI. Does hand teach eyes?] *Dokl. Akad. Pedagog. Nauk RSFSR*, 1962, No. 3, 87-90.—It was always believed that in perceiving forms of objects touch was more effective than vision. In a series of experiments with preschool children the opposite conclusion was reached. It is not the hand which teaches the eyes to observe but the eyes teach the hand how to touch.—*A. Cuk.*

Abilities

7871. Klauer, Karl-Josef. (Heilpädagogisches Inst., Köln, Germany) **Sehschwäche und Intelligenz.** [Defective vision and intelligence.] *Z. exp. angew. Psychol.*, 1962, 9(4), 570-593.—The IQ mean of 67 pupils of a school for visually handicapped children was with 101.8 not significantly different from a normal population. However, children with severe visual handicaps showed a considerably higher verbal IQ and a lower performance IQ. The results are discussed with respect to their theoretical, diagnostic and pedagogic implications.—*W. J. Koppitz.*

7872. Piaget, Jean. **The origins of intelligence in children.** New York: Norton, 1963. 419 p. \$1.95 (paper).—A paper edition of a book originally published in 1952.

7873. Rivoire, J. L. (Tucson, Ariz.) **Development of reference systems in children.** *Percept. mot. Skills*, 1962, 15(2), 554.—144 well-adjusted, middle-class children of average ability were given a Form Development Test devised by the author which consists of 7 items in each of 4 types of space—topological, affine, projective, and Euclidean. Results show that children in this experiment developed topological concepts somewhat later than the Piaget and Inhelder sample. Projective concepts developed somewhat earlier, while affine relationships were well established by 6 years. Reference system development occurred for the most part later in this sample than in the sample reported by Piaget and Inhelder.—*W. H. Guertin.*

7874. Sokhina, V. P. (Moscow U., USSR) **O vydelenii figury iz fona doshkol'nikami: Soobshchenie III. Vydelenie formy v protsesse konstruirovaniia.** [Figure and ground discrimination by preschool children: Communication III. Differentiation of form in the constructing process.] *Dokl. Akad. Pedagog. Nauk RSFSR*, 1962, No. 3, 91-95.—The purpose of a series of experiments was to study the ability of Ss to analyze familiar figures into elements and to rebuild them with different kinds of material and using different methods. In this study Ss were given cardboard inserts to use as building materials under 2 conditions, by pointing out where each piece should go, and by actually putting the pieces together. The 1st solution was more difficult than the 2nd for all Ss.—*A. Cuk.*

7875. Thompson, Jack M., & Finley, Carmen J. (Sonoma County Schools, Calif.) **The relationship between the Goodenough Draw-a-Man Test and the Stanford-Binet Form L-M in children referred for school guidance services.** *Calif. J. educ. Res.*, 1963, 14(1), 19-22.—164 referred children (81 boys, 83 girls; kindergarten through grade 3; CA 5-9) were administered the 2 tests (order not specified). The IQs correlated .67 and had comparable ranges.

S-B IQs averaged 4.15 points higher than the Goodenough D-A-M IQs. "The mean discrepancy in IQ points between the two tests was 14.54. . . . It was concluded that the Goodenough Draw-a-Man Test has serious limitations as a test of intelligence for this population."—*T. E. Newland.*

7876. Wallach, Michael A. (Duke U.) **Perceptual recognition of approximations to English in relation to spelling achievement.** *J. educ. Psychol.*, 1963, 54(1), 57-62.—In an experiment with 55 5th-grade children, ease of perceptual recognition was determined for nonsense words which resemble English and for nonsense words which do not. With all children being equated in recognition accuracy for the latter words, good spellers were found to recognize the former words much more readily than poor spellers. These and further results permitted the conclusion that good spellers show much greater transfer of training than poor spellers—whether the basis for this transfer rests on the learning of the sequential probability structure of letters, on phonetic generalization, or on both.—*Journal abstract.*

7877. Wallon, Henri, & Sauterey, Rachel. **Pluralité et nombre chez les enfants de 4 ans ½ à 7 ans.** [Plurality and number in children 4½ to 7 years old.] *Enfance*, 1962, No. 3, 201-221.—3 groups of 50 children in successive grade levels were called upon to tell which of 2 piles of objects (Cuisenaire blocks) was larger or smaller, why this was so, how the piles could be equalized, and to draw the piles of objects. The kinds of verbal responses at each age reveal thresholds of development. Drawings show modes of abstraction and the development of schema necessary to abstraction.—*S. S. Marzolf.*

Personality

7878. Boulanger-Balleyguier, G. **Le C.A.T. et le Rorschach comme moyens de différenciation caractérielle entre les enfants.** [The CAT and the Rorschach as means for personality differentiation of children.] *Bull. Soc. Franc. Rorschach Meth. Proj.*, 1962, No. 13-14, 47-51.—3 groups of 6- and 7-year-old boys and girls—namely, well-adjusted, aggressive, and anxious (*n*'s = 15, 15, and 14, respectively)—established on the basis of teachers' responses to a questionnaire were given the Rorschach. Statistically significant differences were found, but the differences are suggestive rather than practically useful. The relation between the Rorschach and the CAT was studied using 155 other Ss, ages 3.0-8.3. Effects of mental age and chronological age obscured personality differences. H% did not correlate with the number of humans entering into the CAT responses. In general, the significance of responses on such tests varies with age and with the test.—*S. S. Marzolf.*

7879. Brachman, H. M., & Costello, C. G. (Regina General Hosp.) **Cultural and sex differences in extraversion and neuroticism reflected in responses to a children's personality inventory.** *Brit. J. educ. Psychol.*, 1962, 32(3), 254-257.—The Junior Maudsley Personality Inventory was administered to 261 male and 248 female Canadian high school students and 304 male and 230 female English students. Ages in both groups were between 14 and 16. In terms of mean scores the only differences was that females obtained higher neuroticism scores. Item analysis suggested that "acquiescence" is greater

among English children than among the Canadians.—*B. T. Jensen.*

7880. Brock, Timothy C. (Iowa State U.) Effects of prior dishonesty on postdecision dissonance. *J. abnorm. soc. Psychol.*, 1963, 66(4), 325-331.—145 children (aged 3-12) indicated liking for 3 toys and 3 crackers. After being exposed to a temptation to be dishonest and given a choice of 1 of the objects, they gave liking ratings of their chosen and unchosen alternatives. Postdecisions dissonance reduction (increased liking for the chosen, and decreased liking for the unchosen alternative) was greatest when choice from among dissimilar objects (toy and cracker) followed dishonesty; it was among dissimilar objects (toy and cracker) followed dishonesty; it was least when honesty preceded choosing from among similar objects (2 toys or 2 crackers). Results were consistent with formulations by Hull, on drive summation, and Lewin, on tension spread: irrelevant tension combines with relevant tension to produce greater response to the latter. (18 ref.)—*Journal abstract.*

7881. Brown, Daniel G. (USAF Hosp., Forbes AFB, Kan.) Sex-role preference in children: Methodological problems. *Psychol. Rep.*, 1962, 11(2), 477-478.—Inferences about sex-role preference from the It Scale for Children are complicated by the tendency of children of both sexes to perceive the "It" figure as masculine. "Explanation is discussed along with possible changes in the 'It' figure."—*B. J. House.*

7882. Dasgupta, S. K. (Meerut Coll., Merrut, India) An examination of the data on fear. *Agra U. J. Res.*, 1962, 10(2), 35-43.—A review of studies on fear, with special reference to subjective and environmental factors increasing susceptibility to fear, types of fears experienced at different age levels, relationship between fear and anxiety, degree of persistence of the fears of childhood into adolescence and adulthood, consequences of fear as a deterrent device, methods of prevention of fears, and techniques used to overcome fears. (37-item bibliogr.)—*U. Pareek.*

7883. Evoy, John J., & Christoph, Van F. (Gonzaga U.) Personality development in the religious life. New York: Sheed & Ward, 1963. viii, 247 p. \$3.95.—The book represents the edited transcript of an institute given by 2 priests, one a psychologist and the other a sociologist, to religious women in the summer of 1960. In dialogue form, it stresses the application of psychological studies to the life of nuns. The book comprises 14 chapters encompassing such areas as theories of infant behavior, socialization, anxiety, problems of adolescence, and overprotection, among others.—*H. Feifel.*

7884. Gordon, Jesse E., & Cohn, Faye. (U. Michign) Effect of fantasy arousal of affiliation drive on doll play aggression. *J. abnorm. soc. Psychol.*, 1963, 66(4), 301-307.—Amount of aggression shown by 2 groups of nursery school children was measured in doll interviews before and after a story was read to them. In one group the story was designed to arouse affiliation drive; the story told the other group was neutral. While the controls increased in aggression on the 2nd doll play session, the experimental group remained about the same. Initially high and low aggressive Ss were equally affected by the affiliation arousal, as were boys and girls. The results indicate that the arousal in fantasy of affiliation

drive significantly lowers the expression of aggression.—*Journal abstract.*

7885. Rudi, David. *Psikhologia hitpathutit: Yaldut umaavkey haneurim*. [Developmental psychology: Childhood and struggles of youth.] Tel Aviv, Israel: Izreel Publishing House, 1962. 208 p.—A textbook of lectures in psychology given to students of the Training College for Teachers of Biology and Agriculture. "I tried to treat the theories on development of personality recognized to-day." The recommended psychology is education oriented and psychoanalytically minded. The main topics are: influence or pregnancy and birth, the 1st year of life, the anal period, the phallic period, the latency period, and adolescence.—*H. Ormian.*

7886. Schwidder, Werner. (Ed.) Die Bedeutung der frühen Kindheit für die Persönlichkeitsentwicklung. [The importance of early childhood for the development of personality.] *Beih. Prax. Kinderpsychol. Kinderpsychiat.*, 1962, No. 5. 83 p.—The Association of German Psychagogues chose the theme of the influence of early childhood at its 1961 meeting. Schwidder discussed 12 examples of "harmful love-attitudes"; Tobias Brocher, the influence of early experience perceptions; Rudolph Adam, psychoanalytic insights as a basis for interviewing parents in child guidance clinics; M. Mausshardt, the life of the infant and young child in institutions; and Ursula Neumann, a case of compulsion reactions.—*E. Katz.*

7887. Selg, Herbert. (Ebertstr., 96, Oberhausen, Germany) Verlaufsformen und Erlebnisweisen bei einem Entstehungsexperiment. [Courses of events and modes of experience in a destruction experiment.] *Z. exp. angew. Psychol.*, 1962, 9(4), 523-569.—Children from 3 to 14 yr. were asked to use a rubber stamp to overstamp pictures. While the younger children were so fascinated with the activity that they paid no attention to the picture, older children were frequently reluctant to destroy the picture. By stamping patterns around favorite objects parts of the pictures were preserved. This tendency to restriction and to creative restructuring of a destructive process was lacking in a group of aggressive-destructive children tested for comparison.—*W. J. Koppitz.*

7888. Starkweather, Elizabeth K. (Oklahoma State U.) A comparison of two techniques for measuring sociometric status among nursery school children. *Proc. Okla. Acad. Sci.*, 1962, 42, 199-205.—3 different methods of scoring a 3-choice picture sociometric test were studied in order to determine which method provided the most accurate measure of social status for children in a nursery school group. A paired-comparisons picture sociometric test was used as the criterion of validity. The design of both tests was based on the assumption that an individual wants to benefit a person he likes. All 3 methods of scoring gave results which correlated significantly with the results of the paired-comparisons test; and a 2-1-1 weighting of raw scores gave the most accurate measure of social status for the children.—*Author abstract.*

Parent-Child Relations

7889. Couch, C. J. (Central Michigan U.) Family role specialization and self-attitudes in children. *Sociol. Quart.*, 1962, 3(2), 115-121.—60 college undergraduates reported on the degree to

which various family members performed certain everyday tasks, such as shopping, earning money, caring for children, etc., and they also responded to the question, "Who am I?" by writing 20 descriptive statements. The hypothesis that families with a high degree of role specialization would be more likely to produce children who defined themselves in terms of sex status was supported only for males. For females the trend was reversed: those girls who failed to identify themselves as females or daughters came from families with a high degree of role specialization.—*K. E. Davis.*

7890. Mahler, Margaret S., & Furer, Manuel. (Masters Children's Cent., NYC) **Certain aspects of the separation-individuation phase.** *Psychoanal. Quart.*, 1963, 32(1), 1-14.—Systematic study of mother-child inter-reactions of psychoanalytically trained workers was made for a group of normal infants ranging in age from 6 to 10 mo. to 3 yr. Certain conclusions are reached regarding separation-individuation in normal children and individual cases are discussed.—*J. Z. Elias.*

7891. Robbins, Lillian Cukier. (New York U.) **The accuracy of parental recall of aspects of child development and of child rearing practices.** *J. abnorm. soc. Psychol.*, 1963, 66(3), 261-270.—Retrospective accounts of child rearing obtained from parents of 3-year-olds were compared with reports they previously gave in the course of a longitudinal study begun with the birth of the child. The parents were quite inaccurate in their memory of details about child rearing practices and early development progress, in spite of the frequent rehearsal of these data due to their participation in the longitudinal study, and in spite of the relatively young age of the children. Inaccuracies were greatest for items dealing with the age of weaning and toilet training, the occurrence of thumbsucking, and demand feeding. Inaccuracies tended to be in the direction of the recommendations of experts in child rearing, especially on the part of the mothers. In general, mothers recalled more correctly than fathers. (20 ref.)—*Journal abstract.*

7892. Tolor, Alexander, & Rafferty, William. **The attitudes of mothers of hospitalized patients.** *J. nerv. ment. Dis.*, 1963, 136(1), 76-81.—50 mothers of a group of hospitalized psychiatric patients were compared with a control group of 50 mothers of high school students who had no apparent psychiatric disturbances. 4 scales on the Parental Attitude Research Instrument discriminated significantly between the 2 groups of mothers.—*N. H. Pronko.*

ADOLESCENCE

7893. Adler, Haim. **Tenuat hanoar bahevra hayisre'elit.** [The youth movement in Israel society.] Jerusalem, Israel: Ministry Education Culture & Szold Institute Child Youth Welfare, 1962. 84 p.—Intended for youth leaders, this is a sociological analysis of youth in Israel, especially of the youth movement (YM). The history of YM in Israel in the pre-state and state period and a forecast of its future are given. The author's analysis is followed by 3 "reactions" on behalf of 3 YMs.—*H. Ormian.*

7894. Lapiere, Jean-William, & Noizet, Georges. **Une recherche sur le civisme des jeunes à la fin de la quatrième république.** [Research on the civic

sense of youth at the end of the fourth republic.] Aix-en-Provence, France: Faculté Lettres & Sciences Humaines, 1961. (Ann. Fac. Lett. Aix-en-Provence No. 29) 174 p. NF 17.—This is a study of civic attitudes and citizenship practices of French youth toward the end of the 4th republic. Correlations between these attitudes and practices and numerous sets of psychometric and sociological data are offered. There was only a slight differential correlation between religious belief and the lack thereof and differences in civic sense. Either a firm religious or atheistic position was correlated with civic interest and responsibility, while indifference to such issues was correlated with a lesser degree of civic concern.—*R. F. Creegan.*

7895. McBride, Billie E. (U. Alberta, Canada) **The parental identification of adolescents.** *Alberta J. educ. Res.*, 1962, 8(4), 204-210.—Investigates "the sex-role and parental identifications of junior and senior high school students by comparing their self-perceptions with their perceptions of parent." Differences between Grade 7 and Grade 10 levels and between boys and girls are indicated.—*R. F. Allen.*

7896. Rottenberg, Matityahu, & Naor, Mordekhay. **Tenuot noar beyisrael uvaamim.** [Youth movements in Israel and abroad.] Tel Aviv, Israel: Amihay, 1962. 183 p.—"The development of this country during the last 20 years before establishing the State of Israel cannot be understood without the activity of Youth Movements [YM]." Nowadays they influence youth organizations even in developing countries in Asia and Africa. The psychological and sociological background of YM in general is analyzed, and modern YM as well as international youth organizations are described. The Jewish YM in Israel and all over the world is historically described, and its achievements and problems are critically analyzed.—*H. Ormian.*

7897. Rousselet, J. **Quelques aspects des ambitions sociales des adolescents.** [Some aspects of the social ambitions of adolescents.] *Enfance*, 1962, No. 3, 291-301.—A sample consisting of 100 boys and 100 girls seeking employment was interviewed to learn why they had quit school. Though recognizing the possibly superficial character of the responses, evidence is consistent with the hypothesis that desire for immediate financial gain, stimulated by overcrowded homes, is the major causal factor. The sample does not differ in intellectual level nor physical qualities from adolescents in general. "The absence in this population of dynamism, need for accomplishment, revolt, social aggressiveness, classically characteristic of adolescence, it appears, comes to be underlined in the same manner as its powerlessness to project itself even in dreams beyond the narrow limits in which it accepts confinement."—*S. E. Marsolf.*

7898. Zazzo, Bianka. **La représentation de la réussite chez les adolescents.** [Representation of success among adolescents.] *Enfance*, 1962, No. 3, 275-289.—Interviews with 600 adolescents were conducted to answer the question, "When you say, I would like my life to be a success, what exactly does that mean to you?" The factors considered important for achieving success were also investigated. Data were analyzed with respect to sex and socioeconomic status. Social success, i.e., material and professional or occupational, was dominant. Sentimental success

(to be loved, have friends, etc.) was more commonly mentioned for girls than for boys. Self-realization was also frequently noted. The factors leading to success were chiefly personal rather than external or adventitious. Socioeconomic and sex differences were frequent.—*S. S. Marzolf.*

MATURITY & OLD AGE

7899. **Butler, Robert N.** (National Inst. Mental Health, Bethesda, Md.) **The facade of chronological age: An interpretative summary.** *Amer. J. Psychiat.*, 1963, 119(8), 721-728.—A multidisciplinary pilot study of 47 male volunteers with a mean age of 71 and range of 65 to 91 suggests that "many manifestations heretofore associated with aging per se reflect instead medical illness, personality variables, and social-cultural effects."—*N. H. Pronko.*

7900. **Repond, A.** (Monthey, Switzerland) **L'hygiène mentale de la sénescence et de la vieillesse.** [Mental hygiene in senescence and old age.] *Vita hum.*, 1962, 5(3), 142-160.—The process of aging, both psychological and physical, is still not well-known in spite of the large number of studies devoted to the problem. It appears, however, that the problems accompanying aging are preventable or amenable to therapeutic procedures by the use of mental hygiene measures. Securing for the elderly person adequate economic income has been shown to help him maintain a respectable standard of living and a sense of independence. It is similarly feasible to give the individual feelings of personal dignity in later years by encouraging the development of interests and meaningful activities. Rehabilitative measures, reeducation, and occupational counseling have successfully been employed and could be expanded to help elderly people continue to manage themselves.—*J. L. Yager.*

7901. **Swenson, Wendell M.** (Mayo Clinic, Rochester, Minn.) **The many faces of aging.** *Geriatrics*, 1962, 17(10), 659-663.—Denigration of the aged, complexity of modern life, increasing longevity, and too little knowledge of gerontic abilities are considered with indications for how such problems should be approached.—*D. T. Herman.*

SOCIAL PSYCHOLOGY

7902. **Borgatta, E. F.** (U. Wisconsin) **Some comments on methodological developments in the last quarter-century.** *Sociol. Quart.*, 1962, 3(4), 296-315.—Recent methodological developments in social psychology and sociology were reviewed with an emphasis on 4 problems: mathematical models, survey procedures, experimental design, and measurement assumptions and the use of nonparametric statistics. The discussion of experimental design drew heavily on the work of Donald Campbell. The author criticized the shift from parametric to nonparametric statistics and the inappropriate use of variable levels of significance in the testing of hypotheses.—*K. E. Davis.*

7903. **Burnstein, Eugene; Moulton, R., & Liberty, P., Jr.** (Michigan State U.) **Prestige vs. excellence as determinants of role attractiveness.** *Amer. sociol. Rev.*, 1963, 28(2), 212-219.—116 undergraduate males responded to 4 TAT cards and a month later completed a questionnaire in which they

evaluated various occupations. The TAT protocols were scored for achievement motivation, while the occupations were rated for their prestige, the competence they required, and their attractiveness. Achievement values also were measured. "The excellence [i.e., competence] demanded by an occupational role and the prestige that it confers are positively related to its attractiveness. However, when relevant aspects of the motivational structure of role system members are examined, it is found that individuals high in achievement motivation and in achievement values prefer occupational roles which demand high excellence relative to the prestige they confer, while individuals low in achievement motivation and in achievement values prefer those which confer high prestige relative to the excellence demanded."—*L. Berkowitz.*

7904. **Kleiner, Robert J., & Parker, S.** (Temple U.) **Goal-striving social status, and mental disorder: A research review.** *Amer. sociol. Rev.*, 1963, 28(2), 189-203.—"The relationship of psychopathology and such social and psychological factors as social status, social mobility, and mobility orientation is examined. . . . There are conflicting data. The research on mobility orientation, however, shows that psychopathological groups usually have larger discrepancies between achievement and aspiration than 'normal' control groups. The findings on mobility orientation introduce the possibility of using social-psychological variables to account for (1) correlations between sociological variables and mental illness, and (2) apparently contradictory results."—*L. Berkowitz.*

7905. **Kosa, John.** **Two generations of Soviet man: A study in the psychology of Communism.** Chapel Hill, N. C.: North Carolina Univ. Press, 1962. viii, 214 p. \$5.00.—In order to assess the success of the Soviet in altering beliefs to "make" Communist men in 7 non-Russian European countries, the author, a native Hungarian who lived there until 1949, examines Communist writings and evaluates material gathered from Hungarian refugees. These latter data from 31 males of the well-educated classes of Hungary who left their native country after the revolution of 1956 include: (a) their fictional stories which seemed to characterize the Communist systems best, (b) answers to question about their life and career under Communism, and (c) checking of answers to (b) against "objective" information about the respondent. The change from Czarism to Communism is seen as requiring no personal adjustment to a monopolistic super-ego, only transfer of loyalty. "Making men" in countries without such prior political and value systems is more difficult but the Russians have evolved successful manipulative techniques and the indications are that unless the present trend is halted a 2nd generation of Soviet men may be produced.—*R. Schaeff.*

7906. **Russell, R. W.** (Indiana U.) **Roles for psychologists in the formulation and evaluation of policy.** *J. soc. Issues*, 1961, 17(3), 79-84.—A discussion of the contributions which psychologists can make toward analyzing national policies. In attempting to establish the underlying psychological and behavioral components of national policies a more sharply defined and effective program of action might ensue.—*A. Barclay.*

7907. **Stagner, Ross.** (Wayne State U.) **Personality dynamics and social conflict.** *J. soc. Is-*

sues, 1961, 17(3), 28-44.—Social conflict is viewed as a dynamic homeostatic process in which group identifications are strongly held and, as a consequence, perceptual distortions of the social environment are brought into play in order to maintain group integrity and values relatively constant. The importance of the perceptual process and its distortions in social conflicts, with resultant influence on group dynamics, is stressed.—*A. Barclay*.

CULTURE & CULTURAL RELATIONS

7908. Hoagland, Hudson, & Burhoe, Ralph W. (Eds.) *Evolution and man's progress. Daedalus*, 1961, 90(3), 411-610.—A group of 6 papers by biologists, social anthropologists, and psychologists, with comments from other participants. 2 of the papers—James F. Crow's "Mechanism and Trends in Human Evolution" and Julian H. Steward and Demetri B. Shimkrin's "Some Mechanisms of Sociocultural Evolution"—describe the current state of knowledge in the authors' respective fields. The other 4 papers raise questions concerning where we are going as a species and as a culture and where we should try to go. These papers are: Hermann J. Muller, "Should we Weaken or Strengthen our Genetic Heritage?"; Walter A. Rosenblith, "On Some Social Consequences of Scientific and Technological Change"; B. F. Skinner, "The Design of Cultures"; and Henry A. Murray, "Unprecedented Evolutions."—*K. E. Davis*.

7909. Kardiner, A., & Preble, E. *They studied man*. New York: New American Library (Mentor), 1963. 255 p. \$7.50 (paper).—A paperback edition of the book originally published in 1960.

7910. Powdermaker, Hortense. (Queens Coll.) *Copper Town: Changing Africa*. New York: Harper, 1962. xxiii, 391 p. \$7.95.—A report of a 1-year study in Northern Rhodesia where European mining interests are absorbing tribal peoples into a new pattern of industrial organization. With the help of a small, specially trained native team of assistants, the investigator recorded the talk of people in households, beer halls, public washing stands, and on the road. Native reactions to European and American mass media, and opinions on various matters are described and analyzed in relation to the mixture of European and tribal cultures.—*C. T. Morgan*.

7911. Rosenberg, Jerry M. (Brooklyn Coll.) *Ethnodrama as a research method in anthropology. Group Psychother.*, 1962, 15(3), 236-243.—Ethnodrama, the extension of psychodrama to the study of culture, presents a "valuable dimension for discovering the relations among the various groups in a community, the roles played by members of the groups, and the delineation of the groups in society." The author reviews some of the literature regarding the use of ethnodramatic methods in anthropology.—*I. W. Kidorf*.

7912. Stone, Doris. (San Jose, Costa Rica) *The Talamancan tribes of Costa Rica. Pap. Peabody Museum Archaeol. Ethnol., Harv. U.*, 1962, 43(2), 108 p.—Indians living in the east and west sloping highland valleys speak Bribrí or Cabécares. Otherwise both groups are similar. They plant tubers, fish, and hunt for food; and they manufacture barkcloth and vegetable fibre nets, hammocks, etc. Membership in a matrilineal clan determines residence, social rank,

and partners in marriage. Medicine men care ritually for the sick and the dead. Selections of folklore myth, songs, and linguistic texts are included.—*L. M. Hanks, Jr.*

7913. Wunderlich, Richard A., Youniss, James, & DeSoto, Clinton B. (Catholic U. America) *Schemas and kinship. Psychol. Rep.*, 1962, 11(2), 495-498.—"It is noted that the functional explanations usually given kinship systems . . . seem inadequate to account for the widespread practice of unilinear descent. It is proposed that the practice may be understood in part as a manifestation of the ordering and grouping schemas which have been found to dominate human thinking in various other situations. To provide evidence for this proposal, an experiment was performed, based on transformations of an old puzzle, in which American Ss were shown to have a tendency to think of descent as unilinear even though their society practices bilateral descent."—*B. J. House*.

SOCIAL STATUS & STRUCTURE

7914. Hernandez, David E. (Briarcliff High School, Atlanta, Ga.) *Is the concept of social class being misused in education? J. educ. Sociol.*, 1963, 36(7), 322-324.—Individual behavior cannot be predicted from socioeconomic status. The assumption that education is middle class oriented is matched against the author's unpublished dissertation in education which found that better communications exist between high school teachers and lower-class parents than between the teachers and any other group.—*H. K. Moore*.

7915. Litt, E. (Boston Coll.) *Civic education, community norms, and political indoctrination. Amer. sociol. Rev.*, 1963, 28(1), 69-75.—"A content analysis of civic education texts, interviews with community leaders, and questionnaires administered to civic education classes and control groups were conducted in three communities having different socioeconomic characteristics. In each community differences were found among political themes in civic education texts, attitudes of community leaders, and effects of courses on student political attitudes. In the upper middle-class community students were oriented toward a 'realistic' and active [view] of the political process, stressing political conflict; in the working-class community students were oriented toward a more 'idealistic' and passive view, stressing political harmony."—*L. Berkowitz*.

7916. Weiner, Max, & Murray, Walter. (Brooklyn Coll.) *Another look at the culturally deprived and their levels of aspiration. J. educ. Sociol.*, 1963, 36(7), 319-321.—Lower socioeconomic parents also want their children to go to college but, with them, it is only a wish; with the middle-class parent, it is an expectation.—*H. K. Moore*.

ATTITUDES & OPINIONS

7917. Adams, R. S. (U. Otago, Dunedin, New Zealand) *A further approach to attitude scaling. Brit. J. educ. Psychol.*, 1962, 32(3), 201-208.—245 student teachers rated classes in terms of numbers. The correlation between the scale and Likert scale scores was indicated by a coefficient of .76. Courses actually taken by students confirmed the ratings of

liking. Test-retest reliability coefficient for 190 students was .83 after about 8 mo.—*B. T. Jensen.*

7918. Aronson, Elliot; Carlsmith, J. Merrill, & Darley, John M. (U. Minnesota) The effects of expectancy on volunteering for an unpleasant experience. *J. abnorm. soc. Psychol.*, 1963, 66(3), 220-224.—In a laboratory experiment, Ss performed 2 tasks, one unpleasant, the other neutral. They were then led to expect that they would have to perform one of the tasks again. When subsequently presented with a choice, there was an increase in the probability of their choosing the expected task, even when it was objectively less pleasant. The results were interpreted in terms of an extension of the theory of cognitive dissonance.—*Journal abstract.*

7919. Bronfenbrenner, Urie. (Cornell U.) The mirror-image in Soviet-American relations. *J. soc. Issues*, 1961, 17(3), 45-56.—The author reports, as observations from personal experience, that Soviet-American views of one another's society are curiously similar. These views reflect similar attitudes but with the positive and negative values reversed depending upon the culture in which the observational vantage point exists. The findings are related to current psychological studies, notably the assimilation phenomena in which conflictual information is distorted in such a way as to be consonant with previously held attitudes.—*A. Barclay.*

7920. Chombart de Lauwe, P., Chombart de Lauwe, M. J., Kloskowska, Antonina; Piotrowski, J., Forget, Nelly; Nouacer, Khadidja; Rocher, Guy; Clignet, R., N'Sougan Agblemagnon, F. N., Rosenmayr, Leopold, & Burić, Olivera. Images of women in society. *Int. soc. Sci. J.*, 1962, 14(1), 1-176.—A series of 11 articles surveying changing attitudes toward women in France, Poland, Morocco, Canada, Ivory Coast, Togo, Austria, and Yugoslavia. In general, women are being more accepted into industrial employment (although a hierarchy of acceptance exists: single women must work, married women without children or with grown children may work, married women with small children must not work) and, as a consequence, are gaining more equality with men in society. However, certain apprehensions remain, rooted in the specific cultures surveyed and manifest in various concerns (such as promiscuity), which make complete acceptance of feminine equality difficult. Discussions of these factors for the various cultures are presented.—*A. Barclay.*

7921. Crane, Edgar. Immunization: With and without use of counter-arguments. *Journalism Quart.*, 1962, 39(4), 445-450.—An experimental study of the effects of a 2-sided message suggests that it may reduce the cognitive effects of subsequent counter-propaganda but be inferior to a 1-sided message in effects upon emotional responses.—*D. E. Meister.*

7922. Deutsch, Morton. (Murray Hill, N. J.) Some considerations relevant to national policy. *J. soc. Issues*, 1961, 17(3), 57-68.—Proceeding from the assumption that peace is now maintained by a "balance of terror," the author explores the possibility of maintaining peace by a "balance of mutual trust" and discusses some of the social psychological techniques that might be employed in bringing about such a state of affairs. Certain implications are drawn for

changes in national policies, both military and civilian.—*A. Barclay.*

7923. Foegen, J. H. (Winona State Coll., Minn.) Why attitude surveys fail to measure attitudes. *Personnel*, 1963, 40(2), 69-75.—Attitude surveys are described as more likely to yield answers that are either meaningless or misleading than to furnish management with insight into how employees feel about their jobs and their company. The author offers several reasons for the failure of attitude surveys to measure attitudes: (a) "Because of inherent defects in polls and questionnaires, (b) Because answers to questions can be either thoughtless, or conversely, carefully tailored to please the questioner. (c) Because unrealistic answers can easily be given unintentionally. (d) Because it is quite possible that employees do not know themselves what their attitudes are."—*V. S. Sexton.*

7924. Ford, A. B., Liske, R. E., & Ort, R. S. Reactions of physicians and medical students to chronic illness. *J. chron. Dis.*, 1962, 15, 785-794.—30 clinical faculty members and 27 senior medical students of Western Reserve University Medical School answered a sentence completion form, based on chronic illness and general medical subject matter. The initial hypothesis of negative reactions to chronic illness was not borne out by their responses. Overall reaction of faculty members and students was relatively neutral. Favorable feelings were expressed about situations involving diagnosis and treatment and respondents exhibited breadth and depth of thought in situations where they saw themselves professionally active. Interpersonal relationship of doctor and patient seemed to be of primary importance. Certain aspects of chronic illness did elicit negative feelings. Demanding, hostile, hopelessly ill, or disabled patients were viewed unfavorably. The sentence completion form proved to be a valuable tool for exploration of attitudes and thought processes. Responses could be analyzed easily according to both a reliable orientation index and a reliable index of comprehensiveness of thought in regard to chronic illness. Both indices are presented and the 30-item completion form is appended.—*V. Laties.*

7925. Frank, J. D. (Johns Hopkins U.) Emotional and motivational aspects of the disarmament problem. *J. soc. Issues*, 1961, 17(3), 20-27.—By analogy with the behavior of the individual psychiatric patient, the author explores possible parallels in the behavior of nations in resolving their disarmament conflicts.—*A. Barclay.*

7926. Katz, Daniel. (U. Michigan) Current and needed psychological research in international relations. *J. soc. Issues*, 1961, 17(3), 69-78.—6 areas of research are presented and discussed. The areas are (a) group conflicts and their resolution; (b) the basis for aggression and violence in the individual personality; (c) national imagery; (d) the role of public opinion; (e) the psychological basis of national sovereignty; and (f) social and psychological conditions conducive to developing international structures such as the United Nations.—*A. Barclay.*

7927. Kothurkar, V. K., & Pendse, V. V. A. study of social prejudice in three Indian villages: The problem of Nav-Buddhas. *J. U. Poona*, 1962, 15, 123-129.—The study reports preliminary results from 3 villages with populations of 1500, 1667, and

3500, respectively. In these villages people belonging to the lower castes have been converted to Buddhism. The villages with leadership of younger persons showed less prejudices than those with older leadership.—*U. Pareek.*

7928. Kuhn, M. H. (State U. Iowa) **Self-attitudes by age, and professional training.** *Sociol. Quart.*, 1960, 1(1), 39-55.—A test requiring the respondent to answer the question "Who am I?" by writing 20 different statements was administered to 1185 individuals ranging in age from 7 to 24. The older respondents were more likely to define themselves in terms of social group membership and categories such as age, sex, or educational attainment. Females identified themselves more often in terms of sex and kinship than did males and less often by race. As professional training increased, the likelihood of mentioning professional identification early in the list of statements increased. Different professional trainees were found to have marked differences in the extent to which their self-definitions contained ideological elements, statements of personal goals, and self-evaluations.—*K. E. Davis.*

7929. Meltzer, L. (Cornell U.) **Comparing relationships of individual and average variables to individual response.** *Amer. sociol. Rev.*, 1963, 28(1), 117-123.—A sample of 539 persons in 79 groups was drawn from a population of some 3000 committees throughout the United States which were voluntary or semivoluntary in nature and which dealt primarily with public-relations activities. Questionnaire responses were analyzed. "Tentatively, we have suggested that the relative magnitudes of the relation between individual response and individual or average variables will depend upon the instrumentality—to the individual or to his group—of the attachments which develop between individuals and their groups. . . . [It also is suggested] that at least for variables such as those included in this study . . . it appears that John Doe's behavior and attitudes are often more highly related to average responses of members in his group than to Doe's own answers to the same questions."—*L. Berkovits.*

7930. Meyers, William J., & Hohle, Raymond H. (Fels Research Inst.) **Questionnaire-anxiety and social conformity.** *Psychol. Rep.*, 1962, 11(2), 436.—A small but significant positive correlation was found between anxiety and conformity scores in a group of 40 undergraduates.—*B. J. House.*

7931. Milburn, T. W. (China Lake, Calif.) **The concept of deterrence: Some logical and psychological considerations.** *J. soc. Issues*, 1961, 17(3), 3-11.—A discussion of the implications of attaining an optimum level of deterrent power, a level which will achieve our political and military objectives without provoking aggressive reactions from others. The author points out that deterrence is not an end in itself but simply a means for lessening the probability of war, and that adequate deterrent power could lead to a reduction of military establishments in terms of their sheer size.—*A. Barclay.*

7932. Obenhaus, Victor, & Schroeder, W. Widick. (Chicago Theological Seminary) **Church affiliation and attitudes toward selected public questions in a typical midwest county.** *Rural Sociol.*, 1963, 28(1), 34-37.—1200 interviews with laymen in communities varying in size from farm

communities to county seat town, revealed an "almost complete failure to think theologically about social issues." The people believe that the minister may be no better informed than others, religious and social issues should be kept separate, and the present equilibrium should not be disturbed by introducing extraneous elements, i.e., social-ethical issues, in church.—*H. K. Moore.*

7933. Osgood, C. E. (U. Illinois) **An analysis of the cold war mentality.** *J. soc. Issues*, 1961, 17(3), 12-19.—A cogent analysis of the tendency to perceive our adversaries as all bad and to perceive ourselves as all good, pointing out that such perceptual distortions tends to make the possibility of attributing good motives to our adversaries highly unlikely. As a corollary, it then becomes difficult to envision alternative modes of structuring our relations and leads to a feeling of inevitability in regard to conflicts arising out of such mutual tensions. The possibility of unilateral graduated reductions of such tensions is explored from the point of view of producing reciprocal tension reductions in our adversaries.—*A. Barclay.*

7934. Paul, B. D., Green, A. L., Simmel, Arnold; Kirscht, J. P., Knutson, A. L., Raulet, H. M., Sanders, I. T., Gamson, W. A., Irons, P. H., & Kegeles, S. S. **Trigger for community conflict: The case of fluoridation.** *J. soc. Issues*, 1961, 17(4).—This was previously abstracted (see 37: 4872), but the issue number was given incorrectly.—*Editor.*

7935. Rickard, Thomas E., Triandis, H. C., & Patterson, C. H. (U. Illinois) **Indices of employer prejudice toward disabled applicants.** *J. appl. Psychol.*, 1963, 47(1), 52-55.—A scale to measure prejudice toward disabled applicants for employment, based upon the multifactor stimuli method of Triandis, was developed. The scale was used with 2 samples, a group of 18 personnel directors and a group of 87 school administrators, who rated applicants for the position of accountant and 3rd grade school teacher. 6 types of disability, as well as absence of disability were included in the scale. All disabled groups were subject to expressed prejudice. The disabilities could be ranked in terms of the amount of prejudice expressed toward them. Competence and sociability were also influential in ratings, the former being more significant and complementary with disability. The method can be used to measure prejudice of various groups toward disabilities in various settings.—*Journal abstract.*

7936. Siegman, Aron Wolfe. (U. Maryland School Medicine) **A cross-cultural investigation of the relationship between religiosity, ethnic prejudice and authoritarianism.** *Psychol. Rep.*, 1962, 11(2), 419-424.—43 Protestant students from a University in the southern United States and 41 Israeli students were given a number of personality and attitude scales. A correlation between religious belief and ethnic prejudice was found for the United States sample, but not for the Israeli sample. In the United States sample, religiosity was not correlated with authoritarian personality characteristics. In the Israeli sample, authoritarian personality syndrome was related to certain religious beliefs, but not to religious observance. Differences between the 2 groups are discussed in relation to religious and social differences.—*B. J. House.*

7937. Snider, James G. (U. Alberta, Canada) **Profiles of some stereotypes held by ninth-grade pupils.** *Alberta J. educ. Res.*, 1962, 8(3), 147-156.—"Purpose . . . is to provide information about the stereotypes of Canadian, French Canadian, Englishman, American Indian and Russian as they are perceived by ninth-grade Alberta pupils."—R. F. Allen.
7938. Waisanen, F. B. (Michigan State U.) **Self-attitudes and performance expectations.** *Sociol. Quart.*, 1962, 3(3), 208-219.—This study is a replication and extension of Chapman and Volkmann's 1939 study, "A Social Determinant of the Level of Aspiration" (see 13: 4234). The original finding—that the lower the prestige of the reference group whose fictitious norms were reported to the Ss, the higher the Ss' levels of expectation—was confirmed. In addition, the author found that a favorable general self-evaluation was positively related to performance expectations when the reference group was of an equal or higher prestige group, but not when it was a negative reference group; and that ethnocentric Ss tended to expect higher performance vis-a-vis the negative reference group than did nonethnocentric Ss. 239 Ss were employed in the study.—K. E. Davis.
7939. Wrench, David. (U. Oregon) **A note on "Student Acceptance or Rejection of War."** *Amer. sociol. Rev.*, 1963, 28(2), 277-278.—(See 37: 5618) 96 male and female Oregon college students filled out a questionnaire in which they rated their attitude toward international relations and how dangerous they thought the world situation was. Analyses of the data indicated: "First, the curvilinear relationship of strength of feeling to attitude scale position cannot be safely assumed in all cases but must be tested empirically. Second . . . those students who believe the international situation most dangerous are likely to be the most active in attempting to influence policy making." The students who perceived the world situation as most dangerous generally rated themselves as favoring a strongly aggressive stand in international relations.—L. Berkowitz.
7940. Wrightsman, Lawrence S., Jr. (George Peabody Coll. Teachers) **Dimensionalization of attitudes toward the Negro.** *Psychol. Rep.*, 1962, 11(2), 439-448.—100 southern white students were given a number of paper-and-pencil tests of attitudes toward Negroes. High correlations (.75-.80) were found between affective (liking for Negroes) and conative (degree of social contact desired) components of attitude, and moderately high correlations (.49-.58) between these 2 components and cognitive aspects (ratings of Negro and white occupational types).—B. J. House.
- GROUP INFLUENCES
7941. Banta, Thomas J., & Hetherington, Mavis. (U. Wisconsin) **Relations between needs of friends and fiancés.** *J. abnorm. soc. Psychol.*, 1963, 66(4), 401-404.—This study was undertaken to investigate complementarity and similarity of needs in mate and friendship selection. The Edwards Personal Preference Schedule (EPPS) was administered to 29 clusters of 6 Ss each. A cluster consisted of an engaged couple and a male and female friend of each fiancé. Evidence for similarity of needs in mate and friendship selection, but no consistent evidence for complementarity was found. Engaged couples were significantly alike on 8 of the 15 EPPS needs. In friendship pairings, females select female friends who are like themselves, males select male friends with few similar needs. The male fiancé selects the same type of woman as a friend and as a future spouse, but the female fiancée picks a male friend and a fiancé who are dissimilar. These findings indicate that different processes are involved in the formation of like-sex and opposite-sex pairs fulfilling different interpersonal roles.—Journal abstract.
7942. Broxton, June A. (Alabama Coll.) **A test of interpersonal attraction predictions derived from balance theory.** *J. abnorm. soc. Psychol.*, 1963, 66(4), 394-397.—The study explored the interpersonal attraction factors relating to roommate compatibility among college women. The sample consisted of 121 university women who requested roommate changes during the middle of the academic year. Using an adjective check list, each S described: (a) herself, (b) her originally assigned roommate, (c) her new roommate, (d & e) her perception of her roommates' description of her and (f) her perception of how most people viewed her. A comparison of the responses of the satisfied (new) roommates with those of the dissatisfied (original) roommates supported the following 2 hypotheses at the .01 level: (a) Interpersonal attraction varies with attitudinal similarity in regard to the self as an object of importance. (b) Interpersonal attraction varies more directly with perceived similarity than with objective similarity of self-other descriptions.—Journal abstract.
7943. Crowell, Laura, & Scheidel, Thomas M. (U. Washington) **A study of discussant satisfaction in group problem solving.** *Speech Monogr.*, 1963, 30(1), 56-58.—Satisfaction with both the process and product of interaction was investigated with reference to personal characteristics and personality value structures of discussants. 62 students served as Ss and completed the Allport, Vernon, and Lindzey Study of Values scale and rated their peers on 3 dimensions of small group behavior—individual prominence, group goal facilitation, and group sociability. The mean of peer ratings for these qualities for each S was correlated with the individual's estimate of satisfaction with process and product as were S's scores on the 6 dimensions of the Values scale. Except for one positive result, that between aesthetic value and satisfaction with process, all significant correlations were negative.—D. Lebo.
7944. Dunnette, Marvin D., Campbell, John, & Jaastad, Kay. (U. Minnesota) **The effect of group participation on brainstorming effectiveness for 2 industrial samples.** *J. appl. Psychol.*, 1963, 47(1), 30-37.—Problems were presented for brainstorming to 48 research scientists and 48 advertising personnel employed with the Minnesota Mining and Manufacturing Co. Within a counterbalanced experimental design, each S brainstormed certain problems individually and other equated problems as a member of a 4-man team. Individuals produced not only more ideas than groups, but they accomplished this without sacrificing quality. The net superiority of individual performance over group participation is highlighted by the fact that 23 of 24 groups produced a larger number of different ideas under the individual condition. The superiority of individual brainstorming over group brainstorming was relatively greater when

it was preceded by group participation. Apparently, group participation is accompanied by certain inhibitory influences even under conditions (e.g., brainstorming) which place a moratorium on all criticism.—*Journal abstract.*

7945. Gruen, Walter. (VA Hosp., Canadaigua, N. Y.) Tolerance for idiosyncratic roles in group cohesion. *Psychol. Rep.*, 1962, 11(2), 462.—A discussion of ways in which idiosyncratic as well as symbiotic role satisfaction in a group can promote group cohesion.—*B. J. House.*

7946. Harnack, R. Victor. A study of the effect of an organized minority upon a discussion group. *J. Commun.*, 1963, 13(1), 12-24.—"The objective of this study was to determine whether a minority could create a situation whereby the rest of the members of the discussion group could achieve closure [in Zeigarnik's sense] by accepting the position of a deviate." 20 groups of 6 Ss each were tested; in each group were 2 "plants," one of whom was to deviate from the group, the other who was to approximate the group norm. Ss were asked to react individually to a counseling case study and then to arrive at a group answer to the problem. "Plants" endeavored to swing the group to the deviate position. Significant changes in the hypothesized direction were observed.—*D. E. Meister.*

7947. Lombardi, Donald N. (Seton Hall U.) Peer group influence on attitude. *J. educ. Sociol.*, 1963, 36(7), 307-309.—Acts of a New Jersey student at the University of Mississippi in opposing the entrance of Meredith, the first Negro, to that school are given as an example of peer group influence on attitude.—*H. K. Moore.*

7948. Mouton, Jane Srygley, & Blake, Robert R. (U. Texas) Influence of partially vested interests on judgment. *J. abnorm. soc. Psychol.*, 1963, 66(3), 276-278.—In a study of the evaluation of group positions under various conditions of vested interests, 16 groups composed of 118 Ss spent approximately 12 hr. in autonomous ingroup activities prior to intergroup problem solving. An assigned problem served as the basis for creating different positions among groups. Competition was between pairs of groups. The judging pairs, who evaluated competing solutions, were composed with 2 degrees of vested interests: no vested interest or the condition of neutrality and partially vested interests with 1 person holding membership in a group whose solution was being judged and the other person from a neutral group. A vested interest in an inferior position led to judgments different from those obtained from nonvested pairs. In the latter situation, when the judging pairs included persons from the group with an inferior position, they were successful in elevating the evaluations of their position significantly above those given under baseline conditions of neutrality to a point where it, in effect, tied the better solution for adequacy.—*Journal abstract.*

7949. Newcomb, Theodore M. (U. Michigan) Stabilities underlying changes in interpersonal attraction. *J. abnorm. soc. Psychol.*, 1963, 66(4), 376-386.—Week-to-week changes in interpersonal attraction on the part of 2 17-man populations of initial strangers were observed over a 4-month period. These and 2 other kinds of responses (S's attitudes toward various objects, and estimates of one another's attitudes) showed individual changes during this pe-

riod. From first to last, however, there persisted a preference for psychologically balanced relationships among the 3 kinds of "elements." This psychological constancy helps to account for the nature of the observed changes. Since accuracy of estimates increased with acquaintance, balance increasingly characterized actual as well as judged relationships. Subgroup formation is interpreted in terms of psychological and objective balance, as constancies.—*Journal abstract.*

7950. Oakes, William F. (U. Hawaii) Reinforcement of Bales' categories in group discussion. *Psychol. Rep.*, 1962, 11(2), 427-435.—"During discussion of a psychiatric case in 4-person groups, Ss [N = 96 undergraduates] received reinforcements (flashes of a signal light indicating their statement exhibited 'psychological insight') for verbal responses falling into Bales' categories. Two groups were reinforced for responses falling into each of Bales' 12 categories. Conditioning, indicated by increased frequency of responses falling into the reinforced category, was found only for category 5, gives opinion. Possible explanations for this finding are suggested."—*B. J. House.*

7951. Oakes, William F. (U. Hawaii) Effectiveness of signal light reinforcers given various meanings on participation in group discussion. *Psychol. Rep.*, 1962, 11(2), 469-470.—Amount of verbalization of students in 24 4-person group discussions was measured as a function of reinforcing signal lights with varying instructions as to the meaning of the lights. Direction of reinforcement (positive vs. negative) had a significant effect, but denotative meanings (insight vs. agreement) and source of insight or agreement (professional, peer, or layman) attributed to the lights did not, although results were in the expected direction.—*B. J. House.*

7952. Turk, H. (Duke U.) Social cohesion through variant values: Evidence from medical role relations. *Amer. sociol. Rev.*, 1963, 28(1), 28-37.—Questionnaires were administered to the members of 30 2-person "teams" of student physician and student nurse working in the outpatient clinic of a university hospital prior to and after their clinic experience. The reported extent of interaction between pair members was selected as the index of the cohesion of the pair. The findings indicated that "the greatest team cohesion occurred where the two professional actors held different value orientations. This occurred because the bureaucratically oriented student physician granted a major role to the student nurse and the non-bureaucratically oriented student nurse assumed that role. Thus some variation in value orientations proved to be integrative for relations between different statuses."—*L. Berkowitz.*

7953. Verhofstad, O. Een onderzoek naar enige aspecten van het zelfconcept bij de leden van een kleine groep. [A study of some aspects of self-concept among members of a small group.] *Gawein*, 1962, 11(2), 145-164.—The significance of the self-concept forming elements was divided into thematical, athenatical, problematical, and ambiguous. 4 dimensions of behavior based on self-concept were classified into intelligence and creativity, attitude towards others, temper and attitude towards own manners. The role of significance and dimensions was studied in the self-concepts of members of a small group, using Stephenson's 0-method and 80 personal qualities in the Q-sort.

The results had to be interpreted according to the ideal standard the group had set up for its members. The thematical qualifications were reportedly found on the right side of the scale, the athematical on the left and the ambiguous in the middle, while the problematical were spread all over the scale.—*J. A. Lucker.*

LEADERSHIP

7954. Bowers, David G. (U. Michigan) **Self-esteem and the diffusion of leadership style.** *J. appl. Psychol.*, 1963, 47(2), 135-140.—Neither simple imitation, nor motivational coincidence, is adequate either to explain the frequent, superficial absence of similarities in leadership style across hierarchical levels (leadership climate) or to prescribe the best means for changing the style involved when climate does occur. Self-esteem of the lower-level supervisor is investigated as a mediating variable in this problem, in the context of an organization in which no formal human relations training had taken place. Variables were measured by questionnaires submitted to 17 foremen and their 330 male subordinates in a packaging materials plant. Hypotheses, all confirmed by the data, relate supportiveness of the foreman's supervisor to the foreman's behavior toward his subordinates through the attendant consequences of the foreman's self-esteem.—*Journal abstract.*

7955. Gold, Hilary A. (Brooklyn Coll.) **The importance of ideology in sociometric evaluation of leadership.** *Group Psychother.*, 1962, 15(3), 224-230.—919 children and their 30 teachers completed a series of sociometric questions intended to give an indication of their roles in the classroom, and a questionnaire designed to measure thinking patterns along a scale ranging from socially-integrative (SI) to dominative (SD) ideologies. Results showed (a) relationship between ideologies of children selected for leadership roles and the ideology of their teachers; (b) that the ideological perspective of the teacher was a significant factor in classroom orderliness or disruptiveness; and (c) leaders were found to possess more SI ideological frames of reference than their peers.—*I. W. Kidorf.*

7956. Inamdar, N. R., & Pendse, V. V. **Panchayat leadership: A case study.** *J. U. Poona*, 1962, 15, 188-193.—The case study shows that the "panchayat" (village council body) does not get co-operation from all sections. Leadership conflict are shown.—*U. Pareek.*

LANGUAGE & COMMUNICATION

7957. Cantor, Joel M. (School Medicine, Loma Linda U., Los Angeles, Calif.) **A parallel between Russian proverbs and history.** *Psychol. Rep.*, 1962, 11(2), 381-382.—Lists of Russian proverbs were found to contain a significantly larger proportion of references to predatory animal acts than lists of proverbs from other languages.—*B. J. House.*

7958. Harrah, David. (U. California, Riverside) **Communication: A logical model.** Cambridge, Mass.: Massachusetts Institution Technology Press, 1963. ix, 118 p. \$4.00.—"The over-all intent of this book is to show how symbolic logic and the theory of semantic information can be used to analyze certain aspects of human communication. The specific aim is to construct a model of how a rational receiver

evaluates a sequence of messages. . . . Our guiding assumption is that these questions can be satisfactorily answered only within . . . a theory of the sender-receiver situation. . . . In addition, the book presents a general discussion of the logic of questions, a discussion of meaning, description, and expression, and analyses of such concepts as interview, change of mind, controversy, and tradition." Among the topics covered are: the receiver's language, the receiver's logic, theory of questions, a logic of questions and answers, information, and meaning.—*D. E. Meister.*

7959. Manis, Melvin, & Blake, Joan B. (U. Michigan) **Interpretation of persuasive messages as a function of prior immunization.** *J. abnorm. soc. Psychol.*, 1963, 66(3), 225-230.—2 experiments were conducted in which passive immunization was achieved by providing Ss with counterarguments against persuasive messages to which they were later exposed. In both studies, this procedure produced a significant tendency to displace the perceived content of the "change" message toward the stand advocated in the immunization message. These results were tentatively attributed to the Ss' attempts to minimize the discrepancy between the opposing statements, both of which appeared to emanate from prestigious sources. Judgments were not affected by active immunization, a procedure in which Ss attempted to refute (in writing) weakened versions of the change message to which they were later exposed.—*Journal abstract.*

Speech & Linguistics

7960. Bernard, John L. (Alabama State Hosp.) **Manipulation of verbal behavior without reinforcement.** *Psychol. Rep.*, 1962, 11(2), 390.—Frequency of usage of the pronoun "I" for sentence completion decreased for sentences taken from the Pa scale of the MMPI as compared with neutral sentences for 13 female paranoid schizophrenics. 11 student nurses did not show such changes.—*B. J. House.*

7961. Copeland, Ross H. (U. Kansas) **The effects of feedback modification on verbal behavior. Part II.** *J. Speech & hear. Disord. monogr. Suppl.*, 1963, No. 10, 70-75.—Free-field delayed feedback was administered to 44 high and 44 low verbal level Ss in a solitary situation in order to determine the effect on verbal behavior. It was found the feedback condition elicited a significantly greater amount of verbalization from both groups.—*M. F. Palmer.*

7962. Durand, Marguerite. **Les différentes raisons pour lesquelles un mot appartient à une langue donnée.** [Why does a given word belong to a particular language?] *J. Psychol. norm. pathol.*, 1961, 4, 421-432.—The author describes 5 criteria according to which a given word is regarded as belonging to a particular language: 3 philological criteria and 2 criteria of usage. The words of a passage from Chateaubriand and one from Vercors are classified and compared.—*M. L. Simmel.*

7963. Kew, J. K., Rickard, H. C., & Timmons, E. O. (VA Hosp., Tuscaloosa, Ala.) **The stability of group verbal behavior.** *Psychol. Rec.*, 1962, 12, 323-325.—"The data presented in this paper were compiled from seven different groups of hospitalization veterans. Stability of verbal responding was demonstrated for each group over a period of time. Frequency of speaking, total time of speaking, number

of personal references and number of non-personal references were the measures of verbal behavior. The findings suggest that in a group situation there is a hierarchy of verbal behavior resembling the pecking-order established in other species."—*R. J. Seidel.*

7964. Miller, Arnold. (Clark U.) **Verbal satiation and the role of concurrent activity.** *J. abnorm. soc. Psychol.*, 1963, 66(3), 206-212.—2 studies, including 16 Ss in each, were performed to investigate the effect of concurrent activity on the maintenance of word meanings (verbal satiation). It was found, in both studies, that words repeated with activity maintained their meanings significantly longer than words repeated without activity. Word meaning maintenance was also found to relate to the kind of concurrent activity: words were more facilitated by actions customarily paired with them (e.g., push with pushing activity) than by actions not customarily paired with them. In addition, results indicated that a word could be maintained longer when the concurrent activity included (Experiment II) the added sensory input of vision. (18 ref.)—*Journal abstract.*

7965. Sukhanova, N. V. (Acad. Sciences, USSR) **Elektromiograficheskoe issledovanie "spontannoi" rechi u cheloveka.** [Electromyographic investigation of "spontaneous" speech in man.] *Dokl. Akad. Pedagog. Nauk RSFSR*, 1962, No. 3, 107-110.—EMGs were recorded of 20 Ss, children (age 1.5-7) and adults, under conditions of spontaneous speech (children were describing pictures, adults answering questions). The following muscles were used: gastrocnemius, biceps femoris, extensor digitorum communis, triceps brachii, and sternohyoid muscle. All the muscles were involved in speech of children from 1.5 to 5. Only the last 3 with children of 6-7 yr. In adults only the extensor and sternohyoid were active. —*A. Cuk.*

7966. Taylor, Insup Kim. (Johns Hopkins U.) **Phonetic symbolism re-examined.** *Psychol. Bull.*, 1963, 60(2), 200-209.—A number of previous observations and experiments in phonetic symbolism have been reviewed, and their methods of investigation and their rationale for existence or nonexistence of phonetic symbolism summarized. A series of 3 experiments by Taylor and Taylor were briefly presented. The present paper draws readers' attention to their experimental result that the same sound is associated with different meanings in different languages. The existence of phonetic symbolism on nonspatial dimensions is pointed out. A new rationale of phonetic symbolism has been suggested to account for these results, along with 2 ways to test this rationale. Finally, a few applications of these findings in phonetic symbolism have been proposed. (18 ref.) —*Journal abstract.*

7967. Yates, Aubrey J. (U. Western Australia) **Delayed auditory feedback.** *Psychol. Bull.*, 1963, 60(3), 213-251.—When S hears his own voice with a small time delay his speech may be seriously affected. The effects produced by delayed auditory feedback (DAF) include prolongation of vowels, repetition of consonants, increased intensity of utterance, and other articulatory changes. The significance of individual differences in susceptibility to DAF is considered in relation to personality and physiological characteristics. The technique may prove useful in the detection of auditory malingering

and has possible implications for the understanding of stammering. The discussion relates the findings to models of speech control. Methodological problems and future research needs are outlined. (74 ref.)—*Journal abstract.*

Mass Communication

ESTHETICS

7968. Berque, Jacques. **Sur l'esthétique musulmane et ses motivations psychologiques et sociales.** [The psychological and social roots of Islamic aesthetics.] *J. Psychol. norm. pathol.*, 1961, 4, 433-444.—A historical-sociological analysis of recurrent and new motifs in Arabian art.—*M. L. Simmel.*

7969. Israeli, Nathan. (Long Island U.) **Creative processes in painting.** *J. gen. Psychol.*, 1962, 67(2), 251-263.—In a self-observation study of painting, somewhat abstract outcomes—predominantly landscape fantasy—were varied. The sequence of operations began with exploration and search. Initial forms became tentative models and reference structures as the work continued. The composition, figure, and background, were transformed with long continued operations. A high-speed interaction between critical and creative factors was assumed to be based upon a continual observation of operations. Checks upon operations resulted in judgments and decisions that affected subsequent operations. Suddenness of a feeling of structural control, of imagery stimulation, and of a realization of structural transformation were noted. Dreams indicated no unusual intuitive discovery. A tendency to immediately rework and reconstruct spoiled or decomposed paintings indicated drive increment and secondary negative emotional reinforcement (Mowrer) as well as reversibility of operations (Piaget). Configurational aspects included good structure, structural requirements, reorganization, and restructuring.—*Author abstract.*

7970. Natadze, R. (Tbilisi, USSR) **On the psychological nature of stage impersonation.** *Brit. J. Psychol.*, 1962, 53(4), 421-429.—The hypothesis examined in the present paper is that it is fixated set evolved on the basis of picturing to oneself the particular imaginary situation imposed by the play that constitutes the foundation on which stage impersonation rests. Findings are presented of some experiments on the ability to evoke a set on the basis of an imagined situation. The Ss in these experiments were grouped as follows: (a) gifted actors and promising students of the Tbilisi Theatrical Institute; (b) persons unconnected with the theatre; and (c) persons incapable of stage impersonation. The data suggest a high correlation between the ability to evolve a set on the basis of imagination and the capacity for stage impersonation.—*Journal abstract.*

7971. Vossen, J. M. H. **Over expressiviteit.** [About expressiveness.] *Gawein*, 1962, 11(2), 81-144.—Several painters (de Chirico, Kandinsky, and Klee) think that man can fundamentally have a two-fold approach to things: the ordinary and the metaphysical one. A painting should be seen as a new metaphysical psychology of the object. An attempt is made to confront this opinion with modern psychological ideas, which are considered exclusively pragmatic. The validity of hypotheses, deduced from these painters' theories, is empirically tested. Psy-

chological analysis of the expressive aspects of human perception disclosed a dimension which was found to be closely linked with the "Ego-Te" relationship and seemingly to be realised on 3 distinct levels. In emotionally deprived children this dimension could not develop satisfactorily. Studies also tried to find a quantitative method to measure the development in this "Ego-Te" relationship. (29 ref.)—J. A. Lückner.

PERSONALITY & ABILITIES

7972. Cattell, Raymond B. (U. Illinois) **Personality, role, mood, and situation-perception: A unifying theory of modulators.** *Psychol. Rev.*, 1933, 70(1), 1-18.—Separation of personality and role is important both conceptually and for valid personality measurement. The concept of role stands at a crossroad where formulation of the group, perception, and the psychological situation intersect. The last is handled by distinguishing focal, ambient, and global stimulus situations, and representing them by situational indices obtained under different, controlled factor analytic experiments. Change of behavior in a role can be conceptualized as change of personality or of perception or both. Formally, mood change can be brought with role change under a general concept of modulators, expressible as a set of weight changes in the behavior specification equation. The modulator concept is considered in the context of evaluating traits across stimulus situations, responses, and temporal occasions, in the DR matrix. (22 ref.)—*Journal abstract.*

7973. Lyman, Howard B. (U. Cincinnati) **Test scores and what they mean.** Englewood Cliffs, N. J.: Prentice-Hall, 1963. xv, 223 p. \$5.00. (Text ed., \$3.75)—Scores obtained from a variety of tests—classified by the author as "maximum-performance, objective, supply-response, written, power or speeded and hand-or machine-scored"—are discussed in relation to basic statistics, norms, types of derived scores, and profiles. Cautions and suggestions are noted regarding interpreting and reporting the data to others. The book contains a selected bibliography, a glossary of terms, a conversion table of derived scores, and a summary of score characteristics. The style and contents are particularly suitable for familiarizing those of limited backgrounds in psychological and educational measurement.—I. Linnick.

NEW TESTS & TEST CONSTRUCTION

7974. Allison, Roger B., Jr. (U. Utah Coll. Medicine) **A two-dimensional semantic differential.** *J. consult. Psychol.*, 1963, 27(1), 18-23.—A "pathology score" summarized the distances of 28 stimulus words from a psychological origin for a modified semantic differential. Several groups of control Ss and psychiatric patients were used to assess various properties of the pathology scores. The scores had internal reliabilities of .77 for control Ss and .88 for psychiatric patients. Test-retest correlations were in the low .60s for control Ss and .45 for patients. Group differences showed a systematic increase in mean pathology scores as the severity of the mental illness increased. The factorial composition was related to clinical diagnosis and inversely to scores on perceptual closure tasks. Further refinement was recommended.—*Journal abstract.*

7975. Banta, Thomas J. (U. Wisconsin) **Critical note on unidimensional tests.** *Psychol. Rep.*, 1962, 11(2), 449-450.—"Methods of eliminating or reducing response biases typically introduce heterogeneity into test variance at the expense of unidimensionality. Given these incompatible goals, it is recommended that more attention be given to methods of test development which systematically increase test heterogeneity but which decrease biasing factors."—B. J. House.

7976. Heilbrun, Alfred B., Jr. (U. Iowa) **Revision of the MMPI K correction procedure for improved detection of maladjustment in a normal college population.** *J. consult. Psychol.*, 1963, 27(2), 161-165.—The problem investigated was whether a better system of K weighting could be developed for the 10 MMPI clinical scales to enhance their usefulness as measures of adjustment level within a grossly normal college population. 2-group discriminant analysis was used to determine the K value for each scale to maximize discrimination between maladjusted and adjusted college Ss, the sexes being considered separately. The revised weighting system differed greatly from the standard system; major differences were in negative weighting of Hy and deletion of weights from Hs, Pd, and Ma. Lesser changes in Pt and Sc weights were obtained, and D, Mf, Pa, and Si continued to be unweighted. Cross-validation of revised weights was shown for maladjusted college Ss and seriously maladjusted psychopathic hospital cases.—*Journal abstract.*

7977. Johnson, Rossall J. (Northwestern U.) **Two approaches to the prediction of group responses.** *J. appl. Psychol.*, 1963, 47(2), 158-160.—The method of measuring the ability of an individual to predict the responses of a group was examined. A comparison was made of a predictor's score when summing his correct prediction in one direction as compared to the number of responses in that direction. A relatively low correlation was obtained.—*Journal abstract.*

7978. Marcus, Arthur. (U. Massachusetts) **The effect of correct response location on the difficulty level of multiple-choice questions.** *J. appl. Psychol.*, 1963, 47(1), 48-51.—The influence of position response sets on a multiple-choice achievement test was investigated. Data on 434 students were obtained from 4 alternate test forms of 100 items each. The arrangement of correct choices and distractors was randomized throughout the test by a scheme which allowed each position an equal number of correct choices. The correct choice for each item appeared in a different position on each of the forms. Results indicate that objective multiple-choice tests are relatively free of position preferences. With this type of test it appears that position response sets are negligible and certainly not a significant source of invalidity. It is suggested that the position of the most plausible distractor more logically accounts for any significant response bias than does a position preference.—*Journal abstract.*

7979. Mullins, Cecil J. (Air Force Systems Command, Lackland AFB, Tex.) **Self-confidence as a response set.** *J. appl. Psychol.*, 1963, 47(2), 156-157.—2 tests, 1 spatial, the other verbal, were designed so that half the items on each test did not contain a correct alternative. Every item had "Correct answer not

given" as one of the alternatives. The responses to the alternative Correct answer not given correlate across the tests, even when the abilities measured by the 2 tests are partialled out. The Correct answer not given alternative is relatively independent of the aptitudes measured by the 2 tests.—*Journal abstract.*

7980. Norman, Warren T. (U. Michigan) **Relative importance of test item content.** *J. consult. Psychol.*, 1963, 27(2), 166-174.—The "Deviation Hypothesis" and some related notions presented by Berg including the contention that test item content is unimportant in personality measurement are critically examined. Some previous findings cited in support of these formulations are briefly reviewed. 2 additional sets of data comparing the effectiveness of test stimuli with different degrees of content relevance are presented. The results clearly indicate that for the criteria and subject populations considered, there exist marked differences in the validities obtainable from different classes of test stimuli—those with the highest degree of judged content relevance producing the most satisfactory results. The theoretical or explanatory value ascribed to the Deviation Hypothesis is called into question.—*Journal abstract.*

7981. Smith, Patricia Cain, & Kendall, L. M. (Cornell U.) **Retranslation of expectations: An approach to the construction of unambiguous anchors for rating scales.** *J. appl. Psychol.*, 1963, 47(2), 149-155.—A procedure was tested for the construction of evaluative rating scales anchored by examples of expected behavior. Expectations, based on having observed similar behavior, were used to permit rating in a variety of situations without sacrifice of specificity. Examples, submitted by head nurses as illustrations of nurses' behavior related to a given dimension were retained only if reallocated to that dimension by other head nurses, and then scaled as to desirability. Agreement for a number of examples was high, and scale reliabilities ranged above .97. Similar content validity should be obtained in other rating situations.—*Journal abstract.*

TEST STANDARDIZATION & EVALUATION

7982. Heilbrun, Alfred B., Jr. (U. Iowa) **Evidence regarding the equivalence of ipsative and normative personality scales.** *J. consult. Psychol.*, 1963, 27(2), 152-156.—The equivalence of ipsative and normative personality measures was studied both with regard to interscale correlation and relative validities. Need achievement and nurturance were measured by normative check lists, forced-choice ipsative Q sorts, composed of identical items and administered to the same 197 college Ss. The interscale correlations ranged from .43 to .72, the highest correlations being between the normative and Q sort measures. Only the forced-choice ipsative measure of need achievement related significantly to college GPA with ability partialled out, whereas the normative scale of nurturance showed the only reliable relationship with number of charitable activities. The results were interpreted as supporting the use of ipsative measures for normative predictions.—*Journal abstract.*

7983. Karp, S. A. (Ed.) (State U. New York Downstate Medical Center) **Kit of selected distraction tests.** Brooklyn, N. Y.: Cognitive Tests, 1962. 17 p.—5 experimental tests of ability to overcome the effects of distracting perceptual contexts are

included and discussed. Norms, reliability estimates, and factor-analytic validation data for 150 male college students are presented.—*Author abstract.*

7984. Lipetz, Milton E., & Milton, G. A. (U. Colorado) **Prediction of autonomy behavior from situational modifications of the EPPS n Autonomy Scale.** *Psychol. Rep.*, 1962, 11(2), 487-493.—"Items from the EPPS n Autonomy Scale were revised so as to make one set of items refer to autonomy from authority figures, and a parallel set refer to autonomy from peers. These two revised scales, plus the original EPPS scale were administered to 55 introductory psychology students who were subsequently placed in criterion situations where autonomy behavior could be assessed. None of the scales predicted autonomy behavior, thus failing to replicate Bernardin and Jessor's earlier study, and the inter-correlations among the original and revised scales were so high as to suggest little possibility of differential predictions are discussed.—B. J. House.

7985. Mukherjee, B. N. (U. North Carolina) **Second-order factor analysis of AAF perceptual tests.** *Percept. mot. Skills*, 1962, 15(2), 283-286.—In this 2nd-order factor analysis of 18 primaries, 7 interpretable 2nd-order factors were found. 2 were clearly perceptual; perceptual speed appeared more general than the 2nd one identified as closure. A space factor of more fundamental nature was also identified. The remaining 4 2nd-order factors were identified as verbal, deduction, immediate visual memory for movement detection, and directional visualization. The present study shows the possibility of interpreting the 2nd-order factors without considering the interpretations of the 1st-order factors.—W. H. Guertin.

7986. Ossola, Y. **Validering en interpretatie van een persoonlijkheidstest.** [Validation and interpretation of a personality test.] *Tijdschr. Stud. Beroepsorient.*, 1962, 9, 10-31, 49-60.—A study of the "Frustration Test for Youth" of Coetsier using factor analysis. 12 factors and 4 constellations were found.—R. Piret.

7987. Reger, Roger. (Wayne County Training School, Northville, Mich.) **Repeated measurements with the WISC.** *Psychol. Rep.*, 1962, 11(2), 418.—3 successive administrations of the WISC, at an average interval of 12 mo., given to 65 10-yr.-old, slightly retarded boys, showed significant increases in Performance and Full Scale, but not Verbal, quotients.—B. J. House.

7988. Rimm, David. (Stanford U.) **Cost efficiency and test prediction.** *J. consult. Psychol.*, 1963, 27(1), 89-91.—In evaluating the efficiency of a given screening instrument it is essential that the cost of a false positive error, relative to the cost of a false negative error, be taken into consideration whenever this information is available. An efficiency index based solely upon the expected proportion of correct classifications might well lead to an incorrect decision regarding the acceptance or rejection of a given test. A relatively simple formula is presented, taking into account error costs, as well as the discriminatory power of the instrument, and the population base rate. The formula is then applied to certain hypothetical examples, showing how a decision may be reversed when information regarding error costs is introduced.—*Journal abstract.*

7989. Santos, J. F., & Montgomery, J. R. (Menninger Found.) **Stability of performance on the Color-Word test.** *Percept. mot. Skills*, 1962, 15(2), 397-398.—In several studies dealing with attention and distraction, 4 groups were given the Color-Word test before and after different experimental conditions as one method of assessing experimental effects. None of the procedures influenced performance on the Color-Word test to any significant degree. The test-retest correlations for Color-Word scores of all groups were significant beyond the .01 level of confidence.—*W. H. Guertin.*

INTELLIGENCE & CREATIVITY

7990. Anderson, William F. (Syracuse U.) **Relation of Lorge-Thorndike Intelligence Test scores of public school pupils to the socio-economic status of their parents.** *J. exp. Educ.*, 1962, 31(1), 73-76.—For 598 5th and 6th graders, a high relationship was found between membership in 3 social classes and Lorge-Thorndike IQ. Unlike some previous work, this study found no superiority of non-verbal to verbal IQ in the lower class.—*E. B. Page.*

7991. Cattell, Raymond B. (U. Illinois) **Theory of fluid and crystallized intelligence: A critical experiment.** *J. educ. Psychol.*, 1963, 54(1), 1-22.—The theory of fluid and crystallized intelligence propounded 20 years ago by the author has since accumulated support. However, the crucial issue of whether 1 or 2 general factors subtend intellectual performances has lacked an experiment adequately designed for accurate, determinate, simple-structure rotation at the 2nd order. By factoring culturally embedded with culture-fair intelligence measures on a background of pure personality primaries ($N = 277$ 7th and 8th grade boys and girls), it is shown that 2 general factors indeed exist. A review, with some mathematical formulations, is given of the theory's implications for the nature-nurture ratio, brain injury, standard deviation of the IQ, growth curves, the concept of a relational difficulty hierarchy, test standardization, and the relative validities of traditional and culture-fair intelligence tests.—*Journal abstract.*

7992. Cipellini-Prunotto, A., & Pisanu, A. **Primi risultati sull'applicazione di un nuovo test individuale per la valutazione dello sviluppo mentale in soggetti in età prescolare.** [First results of applications of a new individual test for the evaluation of mental development in preschool children.] *Difesa. soc.*, 1962, 41(4), 122-130.—Description and standardization of a scale based upon studies of Piaget, Wallon, and Gesell that discriminates among various age ranges at the preschool level.—*L. L'Abate.*

7993. Clarke, P. R. F. (U. Sheffield) **Complexities in the concept of intelligence.** *Psychol. Rep.*, 1962, 11(2), 411-417.—"Following from the work of Cattell, Hebb, and Vernon, further complexities in concepts of intelligence are discussed. Distinctions are drawn between "raw score ability" and "normality of ability," between genetic and physiological aspects of intelligence A, and between the "nutritive" and "educative" effects of the environment. The problems presented by the concept of "potential" and the normal decline of test scores with age after maturity are considered."—*B. J. House.*

7994. Guthrie, George M. (Pennsylvania U.) **Structure of abilities in a non-western culture.** *J.*

educ. Psychol., 1963, 54(2), 94-103.—A battery of 50 tests including some tests in the Philippine dialect, Tagalog, was administered to 314 Philippine women college students. 22 factors were extracted. Verbal, numerical, rote memory, visualization fluency, and speed factors were found to be very similar to those found by others. Several factors were found which appeared to be a product of the Philippine educational tradition. Memory and reasoning factors were somewhat ambiguous. The Tagalog verbal factor was quite separate from the English verbal factor. Some implications for further research using more matching tests in the non-Western language were suggested. (23 ref.)—*Journal abstract.*

7995. Phatak, P. **Sex differences on Phatak's Draw-a-Man Scale.** *Educ. Psychol. Rev., Baroda*, 1962, 2(1), 24-29.—Sex differences in a sample of 8000 students showed that the mean scores of girls were consistently and statistically significantly less than those of boys, except at the age of 8. The differences are probably due to cultural and environmental forces.—*U. Pareek.*

7996. Semler, Ira J., & Iscoe, Ira. (Cedar Rapids Community School District, Iowa) **Comparative and developmental study of the learning abilities of Negro and white children under 4 conditions.** *J. educ. Psychol.*, 1963, 54(1), 38-44.—Object pairs and picture pairs of these same objects in conceptually similar or dissimilar sets provided 4 experimental conditions for comparing paired-associate learning of 135 Negro Ss with 141 white Ss across age levels 5 through 9 years. Despite significantly lower Full Scale WISC IQs ($p < .001$), the analysis of variance showed that differences in paired-associate learning favoring white Ss at younger age levels disappeared by 9 years of age ($p < .05$) with no race difference when the age factor was disregarded. Race differences in IQ were greatest at 5 years, however, negligible correlations were obtained between learning and IQ for both races (.094 and .189). Associating object pairs on conceptually similar sets was easiest and picture pairs in dissimilar sets most difficult for both races ($p < .001$).—*Journal abstract.*

7997. Stark, S. (Michigan State U.) **A note on time, intelligence, and Rorschach movement responses.** *Percept. mot. Skills*, 1962, 15(2), 267-272.—Psychology periodically has been observed to be indifferent to cognition oriented toward the future. However, on the basis of various positions taken during the past decade, it may now be argued that psychologists are beginning to redefine intelligence to accommodate foresight and planning. New Guilford instruments and the veteran Porteus Maze Test are attracting attention in this connection. The main argument of the present paper is that the movement scores of the Rorschach test, or the corresponding scores of any test which elicits without soliciting subjective motion, may be regarded as indices of aptitude for creative foresight and planning.—*W. H. Guertin.*

7998. Thorndike, Robert L. (Teachers Coll., Columbia U.) **The measurement of creativity.** *Teachers Coll. Rec.*, 1963, 64(5), 422-424.—Low correlations between subtests and between different tests of creativity suggest considerable tentativeness in using the word "creativity" as measured by tests now so labeled.—*H. K. Moore.*

7999. Triandis, Harry C., Bass, Alan R., Ewen, Robert B., & Mikesell, Eleanor Hall. (U. Illinois) **Team creativity as a function of the creativity of the members.** *J. appl. Psychol.*, 1963, 47(2), 104-110.—The relationship between team performance and individual abilities was studied with creative tasks. Data from 3 experiments are presented which indicate that the conclusions of other investigators, who used manual dexterity and cognitive tasks, can be applied to creative tasks. Up to about 70% of the variance in dyadic creativity may be predicted from the individual creative abilities of the 2 members. Multiple correlations for the prediction of group performance from the knowledge of the abilities of the members did not improve when the interaction between the ability scores was considered. In 1 experiment, in which the procedure permitted the determination of the relative "dominance" of the 2 Ss, the correlations of the abilities of the dominant Ss with group performance were higher than the correlations of the abilities of nondominant Ss with group performance. The study is a 1st step towards the determination of the relationship of group and individual performance in groups composed of more than 2 individuals.—*Journal abstract.*

8000. Tripathi, T. P. **A factorial study of the differentiation of abilities.** *Res. Stud., U. Allahabad*, 1962, 13, 1-11.—103 boys age 13+ were administered 8 tests of intelligence—BPT-7, Pidgeon's Non-Verbal Test, NIIP 70/23, NIIP Form Relations, PSTBI, a verbal meaning test, a number test, and a word fluency test. The scores of the tests were factor analyzed. The unrotated centroid factors were of little help. After rotation 4 factors were isolated and identified: general mental ability or "g," verbal ability or "v," spatial ability or "K," and number ability or "n." These abilities can be "measured effectively at the age of 13+."—*U. Pareek.*

PERSONALITY MEASUREMENT

8001. Bendig, A. W., & Martin, Ann M. (U. Pittsburgh) **The factor structure and stability of fifteen human needs.** *J. gen. Psychol.*, 1962, 67(2), 229-235.—A group of 135 statements representing 15 of Murray's needs had been developed by Wright and administered to college Ss ($N=127$). The same statements were administered to a new group of college Ss ($N=328$) and factor analyses performed on both matrices of interscale correlations. 4 factors were obtained from each sample which, after analytic rotation to oblique simple structure, showed almost identical scale loadings in both samples. Tentative identifications of the need syndromes shown by each factor as "achievement via independence," "obsessive-compulsive," "immature demands," and "social dependency" were suggested.—*Author abstract.*

8002. Graham, Warren R., & Johnson, Cecil D. (USA Personnel Research Office, Washington, D. C.) **An experimental comparison of inventory validity obtained before and after work experience.** *J. appl. Psychol.*, 1963, 47(1), 72-74.—Are responses to inventories more valid when obtained before work experience than after work experience? 2 long self-description inventories were administered to 537 soldiers. The same inventories were administered to 372 members of this sample 18 mon. later and 6 mon. after criterion ratings of performance on maneuvers

in Germany were obtained. The remaining 155 men could not be retested and were used to cross-validate the results. 19 short personality and interest keys and 2 total score keys were developed using the before-experience responses and then the after-experience responses. 2 of the 19 personality and interest keys and 1 of 2 total score keys showed statistically significant differences between validities for the before- and after-experience responses. The cross-validity of the regression composite based on before-experience responses was .23; on after-experience responses it was .26.—*Journal abstract.*

8003. Misra, R. G. (Bureau Psychology, Allahabad, India) **A factorial study of the stability of personality factors.** *Shiksha*, 1962, 15(2), 112-119.—Ascendancy, responsibility, emotional stability, and sociability of 26 graduate students were tested with items taken from Gattell's 16 Personality Factor test, Thorndike's Multidimensional Temperament Schedule, and Gordon Personal Profile. The results were factor analysed by using Thurstone's centroid method. The original 4 factors emerged, although the 4th factor (emotional stability) was hard to interpret. Sociability appears as seclusiveness; ascendancy as submissiveness; responsibility is clear; and emotional stability does not appear as a unique factor.—*U. Pareek.*

8004. Semeonoff, Boris. (U. Edinburgh, Scotland) **An application of inter-person analysis in personality assessment.** *Brit. J. Psychol.*, 1963, 54(1), 71-81.—A simplified form of factor analysis of persons was applied to test performance in a selection procedure associated with different patterns of 2-part self-description (i.e., as one might be seen by a friend, and as by a critic). Self-descriptions containing irrelevant or trivial features were shown to carry, on the whole, predominantly unfavourable implications. In most cases, however, minority groups were characterized by fairly consistent favorable patterns of test performance. Classifications based on the distribution of praise and criticism were also shown, in some cases, to be nonhomogeneous, and no single form of imbalance appeared to be uniformly unfavorable. In particular, role-reversal, as between the "friend" and the "critic," appeared to be a favorable rather than an unfavorable sign. The use of interperson analysis resolved certain anomalies which appeared in earlier studies by showing that these resulted from the mistaken assumption that a given self-description pattern had constant personality correlates.—*Journal abstract.*

8005. Zax, Melvin; Cowen, Emory L., & Peter, Mary. (U. Rochester) **A comparative study of novice nuns and college females using the response set approach.** *J. abnorm. soc. Psychol.*, 1963, 66(4), 369-375.—The vastly different type of life chosen by novice nuns and college females suggested personality differences which were thought likely to be reflected in response style. Accordingly, 40 Ss in each group were asked to rate each of the Rorschach inkblots on 21 semantic differential scales. It was found that the nuns generally rated the inkblots toward the more positive extreme of the evaluation scales and at times toward the more potent extreme of the potency scales. The generality of this tendency was assessed by comparing the social desirability (SD) ratings of 28 nuns to those of 28 college

females. It was again found that the nuns tended toward more extreme ratings. The introduction of the SD dimension resulted not only in more positively extreme ratings on adjectives ordinarily rated positively, but also more negatively extreme ratings on adjectives ordinarily rated as negative. Nuns were more variable than college females in rating nearly neutral adjectives. It was concluded that these tendency differences might be used as a basis for later prediction studies. (24 ref.)—*Journal abstract.*

Inventories

8006. Adams, Henry E., & Kirby, Albert C. (Louisiana State U.) **Manifest anxiety, social desirability, or response set.** *J. consult. Psychol.*, 1963, 27(1), 59-61.—The present investigation tested Edwards' hypothesis that the SD scale is not confounded with response set and determined the extent that response set contaminates Taylor's MA scale. By reversing the items of these scales, true and false scales for each personality scale were obtained. Statistical procedures were then utilized to determine response set and content scores for each scale. The results indicate that the MA scale is relatively free of response set and that the SD scale is measuring both response set and social desirability. It should not be assumed automatically that a scale which has items stated in a single direction is measuring response set or that a scale with items stated in both directions is not.—*Journal abstract.*

8007. Aiken, Lewis R., Jr. (Woman's Coll., U. North Carolina) **Frequency and intensity as psychometric response variables.** *Psychol. Rep.*, 1962, 11(2), 535-538.—"The effects of varying the response format, while holding the stimulus component of items constant, on scores on a 24-item anxiety inventory were studied. Two response formats were used, frequency (Never-Always) and Intensity (Mild-Intense). Four groups of 65 Ss each filled out one or both of the inventories in one of four orders (frequency-frequency, intensity-intensity, intensity-frequency, and frequency-intensity) over two time periods." The means of the 2 forms differed significantly, and the correlation between forms was less than the reliability of each. The frequency inventory was positively, the intensity inventory negatively, correlated with grades. "The study demonstrates that the kind of response called for on paper-and-pencil inventories affects the statistics and meaning of such devices."—B. J. House.

8008. Bendig, A. W. (U. Pittsburgh) **The factorial validity of the Guilford Zimmerman Temperament Survey.** *J. gen. Psychol.*, 1962, 67, 309-317.—The Guilford Zimmerman Temperament Survey was administered to 299 male college freshmen. Each scale was divided into 3 subscales; the 30 subscales were intercorrelated, and 10 1st-order centroid factors were extracted from the matrix. The factors were rotated to oblique simple structure using the oblimax criterion. The matrix of inter-factor correlations was further factored into 3 2nd-order factors which were also rotated to simple structure. The correlations among the 10 GZTS scales were factored into 4 factors and were rotated to simple structure. The analysis of the subscale intercorrelations demonstrated the factorial validity of the GZTS scales as each of the subscales loaded on only one factor and the sub-

scales from a given scale loaded on the same factor. The matrices of inter-factor and interscore correlations were almost identical. The loadings on the 2nd-order factors (Extraversion-Introversion, Social Activity, Emotionality, and Friendliness) were similar for both matrices with 1 exception; the Emotionality and Friendliness factors were combined in the inter-factor matrix due to the large correlation between these 2 factors for this sample of Ss.—*Author abstract.*

8009. Eysenck, Sybil B. G., & Eysenck, H. J. (Inst. Psychiatry, U. London, England) **The validity of questionnaire and rating assessments of extraversion and neuroticism, and their factorial stability.** *Brit. J. Psychol.*, 1963, 54(1), 51-62.—Groups of nominated extraverts and introverts, and of stable and neurotic Ss were given a 188-item questionnaire containing questions thought to be relevant to the measurement of these 2 dimensions of personality. Factor analyses were also carried out for 124 of these items making available factor loadings on these 2 dimensions. An analysis was carried out of the relationship between rated and self-rated behavior, and it was concluded that as far as extraversion was concerned, there was considerable agreement between these 2 methods of assessment. As regards neuroticism, agreement was much less close, and a theoretical explanation of this fact is given, supported by a special analysis of the empirical data. It was found that the factor analytic method of locating the E and N factors had considerable stability as from one study to another, in spite of considerable differences between the studies in choice of sample, choice of items, and other factors.—*Journal abstract.*

8010. Fröhlich, Werner D., & Wiskandt, M. (U. Bonn, Germany) **Untersuchung zur möglichen Altersabhängigkeit der Versuchseinstellung im Fragebogenexperiment.** [An investigation of the possible relationship of age and performance on personality inventories.] *Vita hum. Basel*, 1962, 5(3), 167-176.—70 Ss, 25-60 years of age and equally divided as to sex, were given a questionnaire consisting of the German version of Taylor's Manifest Anxiety scale, the L and K items of the MMPI, and ten of Eysenck's MMQ scale items, making a total of 105 test items. Analysis of the data revealed a significant correlation between the L score and age ($\rho = +.48$). The mean L score of the younger group (25-35) was significantly lower than that of the older group (35-60) when the population was divided into 7 5-year age groups. Scores on the Manifest Anxiety and K scales were independent of age though the correlation between them was significant but negative.—J. L. Yager.

8011. McDonald, Robert L., & Gynther, Malcolm D. (Medical Coll. South Carolina) **MMPI differences associated with sex, race, and class in two adolescent samples.** *J. consult. Psychol.*, 1963, 27(2), 112-116.—This study was designed to determine if Negroes and whites perform differently on the MMPI with socioeconomic status controlled. The sample of 360 was drawn from high school seniors attending segregated southern schools. Class categorization was based on parental occupation. Analyses of variance and supplementary "t" tests showed that Negro students obtained higher scores than whites on Scales L, F, 1, 2, 5, 8, and 9 and lower

scores on Scale 3, and males obtained higher scores than females on Scales 1, 2, 5, 7, and 9 and lower scores on 0, but that no differences were attributable to the class factor. It was hypothesized that the Negro-white differences reflect distinctive cultural patterns. The development of separate MMPI norms for Negroes was recommended. (15 ref.)—*Journal abstract*.

8012. Pierce-Jones, John; Mitchell, James V., Jr., & King, F. J. (U. Texas) **Configurational invariance in the California Psychological Inventory.** *J. exp. Educ.*, 1962, 31(1), 65-71.—This investigation of the CPI was designed to determine the factorial composition of the inventory's 18 scales for a sample of 156 city school superintendents and to compare the factors so found with those obtained in an earlier factor study of 258 undergraduates, "mostly women. In both studies, identical centroid analysis and varimax rotation yielded 4 CPI factors. Ahmavaara transformation analysis indicated that 2 factors were virtually identical and 2 understandably less similar.—E. B. Page.

8013. Stricker, Lawrence J. (Educational Testing Service, Princeton, N. J.) **Note on social desirability response style and learning.** *J. educ. Psychol.*, 1963, 54(1), 52-56.—In Brown's [see 34: 3531] study of the learning of personality items which were paired with nonsense syllables, a major finding was that social desirability response style was related to learning measures for women but not men. A reanalysis of these results found that social desirability response style was related to delayed recall for both men and women, and confidence and immediate recall for women only. It was noted related to trials to mastery, learning time, and blockings. It was concluded that this study partially supports Edwards' social desirability response style reinterpretation of studies of anxiety and learning, but that many previous studies do not.—*Journal abstract*.

8014. Wiggins, Jerry S. (U. Illinois) **Social desirability under role playing instructions: A reply to Walker.** *J. consult. Psychol.*, 1963, 27(2), 107-111.—Wiggins (1959) found that Edwards' SD scale was not effective in distinguishing MMPI records of Ss instructed to answer in terms of social desirability from records of other Ss not so instructed. Walker (see *J. consult. Psychol.*, 1962, 26(2), 162-166) has criticized Wiggins' study on both procedural and interpretative grounds and reported findings of a redesigned replication that suggest SD can perform this discrimination. It was argued that given (a) the actual development of the SD scale, (b) the success of other desirability scales in both studies, (c) the similarity of control scales in both studies, and (d) Walker's failure to control for the test-retest "improvement" effect, Walker's conclusions cannot stand, and his defense of the SD scale must be judged unsuccessful.—*Journal abstract*.

Projective Methods

8015. Avila, D. L., & Lawson, J. R. (U. Nebraska) **The Thematic Apperception Test as a diagnostic tool with retarded adults.** *Percept. mot. Skills*, 1962, 15(2), 323-325.—15 retarded males and 9 females, ranging in age from 16 to 44 and having IQs from 50 to 89, were administered the TAT.

Their responses were evaluated in terms of the quantity and quality of response and the relationship of these 2 variables to age, sex, and intelligence. The resulting data appear to support the hypothesis that the TAT is of limited value in ascertaining the needs or personality structure of the retarded individual. This seems to be true, at least with respect to Ss in this study, regardless of age, sex, or intelligence.—W. H. Guertin.

8016. Block, W. E. (Yeshiva U.) **Preliminary study of adaptation level theory as a framework for projective testing.** *Percept. mot. Skills*, 1962, 15(2), 366.—The paradigm of adaptation-level was applied to projective testing on the assumption that response to the projective technique is structurally similar to the types of judgments made in psychophysics. 20 Ss rated the Rorschach inkblots after giving free responses on an evaluative scale of the semantic differential whose bipolar adjectival anchors were "pleasant" and "unpleasant." The prevailing adaptation-level or neutral Ss' original mean judgments were then postdicted on the assumption that they had been made with respect to a framework of reference determined by the adaptation-level, as suggested by theory. The hypothesis that test responses follow the psychophysical paradigm of adaptation-level was confirmed.—W. H. Guertin.

8017. Jakab, Irène. **Représentation consciente et inconsciente de soi-même dans les figures humaines dessinées.** [Conscious and unconscious self-representations in human figure drawings.] *Confin. psychiat.*, Basel, 1962, 5(2-3), 112-129.—When asked to draw a self-portrait, mental patients generally depict themselves as participant in a situation. Only rarely do they show feeling as facial expression. Hallucinations and pathological body experiences may be depicted, for example, by showing a snake in the self-figure's abdomen or "magic waves" that pass through the figure. Physically handicapped figures endow other figures with their own infirmities. And when asked to draw a "beautiful" figure, nonhandicapped children drew significantly more human figures than did physically handicapped children.—E. W. Eng.

8018. Langer, Philip. (Utah State U.) **Social desirability and acquiescence on the SORT.** *Psychol. Rep.*, 1962, 11(2), 531-534.—"Seventy-four Ss at Utah State University were administered the Gough Adjective Checklist and the SORT [Structured Objective Rorschach Test]. Agree-disagree and social desirability scores were derived from the Gough and correlated with W and Dd responses on the SORT. The two significant rhos were presumed to reflect chance. Cronbach's warnings about the limitations of set generalization were discussed, and the interaction between cognitive styles and test variables was offered tentatively as an explanation for the phenomenon of response set."—B. J. House.

8019. Miller, L., & Salomon, F. **Test de Rorschach de médecins praticiens.** [Rorschach test of practicing physicians.] *Bull. Soc. Franc. Rorschach Meth. Proj.*, 1962, No. 13-14, 20-27.—Protocols of 20 practicing physicians and 10 physicians not in practice were used to indicate probable characteristic responses of physicians for comparison with similar data from those in other professions. Tentative conclusions are that physicians have greater W% and less D%, few M, relatively numerous CF, and some S.

Differences between practicing and nonpracticing physicians are noted.—S. S. Marzolf.

8020. Satz, P., & Carroll, L. T. (VA Hosp., Lexington, Ky.) **Utilization of the Proverbs Test as a projective instrument: An objective approach through language behavior.** *J. gen. Psychol.*, 1962, 67(2), 205-213.—This study attempts to construct an objective measuring instrument for investigating certain personality variables through language behavior. The Proverbs Test by Gorham (1956) was used as the independent variable; however, scoring was based on the unique language productions elicited by the proverb stimuli. 7 type frequency scoring categories were defined and classified. The test was standardized on a university sample ($N=179$) and a schizophrenic sample ($N=58$). Independent tests for category discreteness, reliability, objectivity, and validity were obtained. Results yielded substantial support for all tests with the exception of validity. More tenable support for category validity came through the study of known groups.—*Author abstract.*

8021. Schüling, Hermann. (Marktstr. 4, Giessen, Germany) **Psychologie der thematischen Apperzeption.** [Psychology of thematic apperception.] *Z. exp. angew. Psychol.* 1962, 9(4), 625-666.—Within the framework of a theory of expression 2 aspects of apperception are distinguished: the material and the formal. While most theories of expressive behavior exclude the theme, the material aspect, from consideration, emphasis is placed on its inclusion in the analysis. It should be regarded as expression of personality also. The theme of the apperception allows recognition of individual drive and ego structure, prevailing emotional mood, and social attitudes.—*W. J. Koppitz.*

8022. Wylie, Ruth C., Sisson, Boyd D., & Taulbee, Earl. (Goucher Coll.) **Intraindividual consistency in "creative" and "memory" stories written for TAT pictures.** *J. consult. Psychol.*, 1963, 27(2), 145-151.—108 college women wrote at 2 sittings, either following the usual (creative) instructions both times, providing reliability data, or following "creative" instructions one time, drawing stories from memory the other. Memory sources were varied in 2 subconditions. Aggression and Dependency scores were used in separate tests of the clinically assumed hypothesis that it makes no difference diagnostically whether S is being creative or drawing stories from memory. When correlating scores from 2 types of instructions, card set and session number were balanced. Intraindividual consistency is low or zero under all conditions, despite reliable scoring. Aggression rs are larger than Dependency rs. The data do not justify using the TAT as scored here for individual diagnosis.—*Journal abstract.*

PERSONALITY DIAGNOSIS

8023. Grebstein, Lawrence C. (VA Hosp., Lexington, Ky.) **Relative accuracy of actuarial prediction, experienced clinicians, and graduate students in a clinical judgment task.** *J. consult. Psychol.*, 1963, 27(2), 127-132.—3 groups of judges, varying in amounts of clinical experience, predicted Wechsler-Bellevue IQ scores from Rorschach psychograms in competition with a multiple regression equation. The results indicated that: (a) There was no

significant difference between the degree of accuracy of the judgments of the equation and of the clinicians. (b) The judges and the multiple regression equation were able to judge IQ scores significantly better than chance, (c) Clinical predictive accuracy, as indicated by high positive correlations between predicted and actual IQ scores and low average error scores, did not increase significantly with amount of clinical experience.—*Journal abstract.*

8024. Rümke, H. C. (Mariahock 4, Utrecht, Netherlands) **Die Bedeutung von Phenomenologie und Beschreibung in der Psychiatrie.** [The significance of phenomenology and description in psychiatry.] *Z. Psychother. med. Psychol.*, 1962, 12(3), 94-102.—Description of a phenomenon never reproduces the phenomenon itself in its totality. Isolation of a phenomenon without any frame of reference can never produce a valid description. Descriptive methodology in psychiatry proved fruitful—among others—in dealing with endogenous versus organic psychoses. The description should also include what the patient is lacking and what is going on in the examiner. A description within one frame of reference should not be looked upon as representing the whole. At any rate, a good description of the manifest will always remain valuable, while the theories of "depth" may disappear.—*I. Neufeld.*

8025. Smith, Aaron; Smith, Robert; Sanders, Richard; Weinman, Bernard; Kenny, Janice, & Fitzgerald, Bernard. (Philadelphia State Hosp.) **Predicting the outcome of social therapy with chronic psychotics.** *J. abnorm. soc. Psychol.*, 1963, 66(4), 351-357.—A group of 69 male, long-hospitalized chronic psychotics in an experimental rehabilitation unit was tested on a new device, the Hunter problem box, prior to their treatment by 1 or 3 variants of social therapy. A summary score, the Hunter Process Index, was developed to relate to patients' postprogram adjustment on completion of a social therapy program. The index reflects changes in the degree of problem solving rigidity displayed by the patient as he moves from a simple, 2-light, single alternation problem to a more complex, 4-light, double alternation problem. The Hunter Process Index was validated with a group of 71 long-hospitalized, female psychotics who also had been exposed to the social therapy approach of the rehabilitation unit, and again with a group of 48 male chronic psychotics who had received some slight variation in the program. The index scores were predictive of the outcome of patients in these groups. Clinical judgments failed to predict outcomes. A normal control group in a separate study earned better Hunter index scores than did either the released or hospitalized groups of male chronic psychotics.—*Journal abstract.*

PERSONALITY ADJUSTMENT

8026. Buss, Arnold H., & Brock, Timothy C. (U. Pittsburgh) **Repression and guilt in relation to aggression.** *J. abnorm. soc. Psychol.*, 1963, 66(4), 345-350.—College men and women who were opposed to electric shock in research were instructed to deliver intense shock to others (victims). Before administering shock $\frac{1}{2}$ the Ss read a positive communication (shock is beneficial) and the other $\frac{1}{2}$, a negative communication (shock is harmful). There was signif-

icantly less recall of the negative communication. For the same-sex pairs (male S-male victim and female S-female victim) the positive communication elicited significantly more guilt and opposition to shock than did the negative communication; for opposite-sex pairs the results were reversed. These findings could be explained by cognitive dissonance theory or by an identification hypothesis.—*Journal abstract.*

8027. English, O. Spurgeon, & Pearson, Gerald H. J. *Emotional problems of living.* (3rd ed.) New York: Norton, 1963. x, 624 p. \$7.50.—Psychoanalytically oriented discussion of normal and abnormal personality development from birth to old age. Particular emotional disturbances are correlated with different periods of development, i.e., early and later childhood, adolescence, adulthood, and old age. Specific chapters are devoted to marriage and sexual adjustment, maturity, mental illness, and treatment.—*D. G. Brown.*

8029. Feather, N. T. (U. New England, New South Wales, Australia) *The relationship of expectation of success to reported probability, task structure, and achievement related motivation.* *J. abnorm. soc. Psychol.*, 1963, 66(3), 231-238.—Male students estimated their chances of success before performing an anagrams task. 3 reported probabilities of success (.20, .50, and .80) were combined with 3 lengths of the puzzle (8, 11, and 14 anagrams), and 14 Ss were randomly assigned to each of the 9 experimental conditions. Probability estimates were found to increase as reported probabilities increased ($p < .001$) and as the list of anagrams became shorter ($p < .025$). Ss tended to overestimate chances of success for the .20 reported probability and to underestimate chances for the .80 reported probability ($p < .001$). Probability estimates were negatively related to debilitating anxiety ($p < .05$) and positively related to facilitating anxiety ($p < .025$), but correlations were very low. Results are taken to indicate the dominant role of past experience in shaping present expectations. (34 ref.)—*Journal abstract.*

8029. Fisher, Seymour. (Upstate Medical Cent. State U. New York) *A further appraisal of the body boundary concept.* *J. consult. Psychol.*, 1963, 27(1), 62-74.—A series of studies were reviewed which cross-validated and extended previous findings concerning the relationship of two measures of body image boundary definiteness (barrier and penetration scores) to various levels of behavior. Support was found for the view that the more definite an individual's boundaries the more likely he is to manifest relatively higher physiological reactivity in body exterior as contrasted to body interior sectors. There was substantial evidence too that with increasing boundary definiteness there is greater ability to adjust adequately to disablement of one's body, to maintain normal ego integration, and to be effectively communicative in small group settings. Finally, the rationale was discussed for interpreting the barrier and penetration scores within a body image framework. (46 ref.)—*Journal abstract.*

8030. Hamilton, M., Pond, D. A., & Ryle, A. (25 Caversham Rd., London, England) *Relation of C.M.I. responses to some social and psychological factors.* *J. psychosom. Res.*, 1962, 6(3), 157-165.—

The Cornell Medical Index responses of 146 adults were related to their childhood experience and marital adjustment. High scores were associated with the recollection of emotionally disturbed childhood homes and in women, with poor marital adjustment. High scoring women reported many functional physical symptoms. Higher "psychiatric" scores went with more numerous physical symptoms. (18 ref.)—*W. G. Shipman.*

8031. Herron, W. G. (St. Bonaventure U.) *IES Test patterns of accepted and rejected adolescents.* *Percept. mot. Skills*, 1962, 15(2), 435-438.—The IES Test was administered to a group of rejected adolescents and a group of accepted adolescents to estimate the effect of parental rejection on personality functioning. The Picture Story Completion and the Picture Title subtests were the most sensitive to personality differences, though some individual items on all tests were of discriminative value. The rejected adolescent displayed a weak ego, restricted in its integrative capacity by either impulse demands or super-ego limitations. This confirmed the hypothesized effect of rejection and indicated the evaluative capacity of the IES test.—*W. H. Guertin.*

8032. Jessor, Richard; Liverant, Shephard, & Opoichinsky, Seymour. (U. Colorado) *Imbalance in need structure and maladjustment.* *J. abnorm. soc. Psychol.*, 1963, 66(3), 271-275.—4 studies are reported which replicate the test of the hypothesis that extreme imbalance within a need structure is associated with poorer adjustment. The Rotter Incomplete Sentences Blank (ISB) was the adjustment-maladjustment measure. Imbalance in need structure was measured by Liverant's Goal Preference Inventory which assesses the relative strength of Affection and Recognition needs. Extremely imbalanced and extremely balanced need groups were compared on ISB scores in each of the 4 independent studies. All results were in the predicted direction, with 11 out of 16 comparisons statistically significant. Within the limitations of the measures, the studies provide support for the hypothesis that a structural characteristic of a personality need system—extreme imbalance—is associated with poorer adjustment.—*Journal abstract.*

8033. Levy, L. H. (Indiana U.) *Age and personal need correlates of expectancy for change.* *Percept. mot. Skills*, 1962, 15(2), 351-356.—Defining expectancy for change as the probability held by an individual for the occurrence of a novel or different state of affairs from that now existing in a given situation and summed over a variety of situations, an instrument called the Event Anticipation Survey was developed. Comparing a college student group with an aged group, no differences were found in mean expectancy for change and EPPS need scores for the college group yielded significant correlations for the following needs: Dominance, -.35; Change, .29; Intracception, .23; and Deference, -.22. The possible meaning of these correlations as well as the implications of other findings of this study for the construct of expectancy for change were discussed.—*W. H. Guertin.*

8034. Stekel, Wilhelm. *Compulsion and doubt.* (Trans. by Emil A. Gutheil) New York: Grosset & Dunlap, 1962. 645 p. \$2.45.—A paperback edition of the book originally published in 1949.

Anxiety

8035. Kamano, Dennis K. (Galesburg State Research Hosp.) Relationship of ego disjunction and manifest anxiety to conflict resolution. *J. abnorm. soc. Psychol.*, 1963, 66(3), 281-284.—The purpose of this study was to discover the influence of 2 determinants, ego disjunction (ED) and manifest anxiety (MA), on conflict resolution. ED, defined as antagonistic response tendencies within an individual, was measured by the Edwards Personal Preference Schedule, and MA by the Taylor MA scale. From a sample of 56 college Ss, it was found that Ss high in both ED and MA required significantly more time to resolve approach-approach and avoidance-avoidance conflicts than Ss high in only one determinant but low in the other and Ss low in both determinants. No significant differences in conflict scores were found when Ss low in both determinants were compared with Ss high in only one determinant but low in the other. The results were interpreted as indicating that ED and MA interact, producing interfering responses which hinder efficient resolution of conflicts when ED and MA are both high within an individual. High MA and high ED scores, when taken alone, did not yield any conclusive results. It is only when both determinants are taken into consideration that greater confidence can be invested in those measures to predict conflict performance.—*Journal abstract.*

8036. Milliken, Robert L., & Spilka, Bernard. (Purdue U.) Mathematical-verbal ability differentials and somatic expressions of situational anxiety. *J. exp. Educ.*, 1962, 31(1), 3-26.—48 Ss were divided into ability groups of high verbal-low math, high math-low verbal, and equal verbal-math skills. Physiological measures were recorded during testing including verbal and mathematical material. Some support was given to the hypothesis that anxiety would be indicated during testing of an individual's deficient area.—*E. B. Page.*

8037. Sweetbaum, Harvey A. (Montgomery County Health Dept., Rockville, Md.) Comparison of the effects of introversion-extraversion and anxiety of conditioning. *J. abnorm. soc. Psychol.*, 1963, 66(3), 249-254.—This study investigates the effects of Eysenck's introversion-extraversion theory and Spence-Taylor's concept of anxiety on the eye-blink conditioned response by varying these factors independently. 56 patients were subjected to conditions of high and low anxiety. Group I (anxious group) were about to undergo major surgery; Group II (nonanxious group) were patients who had successfully recovered. These patients were divided into high introverts and high extraverts, yielding 4 groups (anxious introverts, anxious extraverts, nonanxious introverts, nonanxious extraverts). The anxious groups showed greater conditioning than the non-anxious groups and no significant differences were found between the high and low introvert groups, supporting the hypothesis that total drive is, in part, a function of internal anxiety. (19 ref.)—*Journal abstract.*

Defenses

8038. Bramel, Dana. (U. Minnesota) Selection of a target for defensive projection. *J. abnorm. soc. Psychol.*, 1963, 66(4), 318-324.—This hypothesis was tested and supported ($p < .05$): a person receiv-

ing unambiguous undesirable information about himself which is dissonant with his self-concept is more likely to project the attribute onto persons in his own social category than onto outgroup members. Each college student S was told either that he was lacking in or that he possessed homosexual motivation; he then rated the homosexuality of a speaker telling TAT stories on a tape recording. $\frac{1}{2}$ of the Ss believed the speaker was another student; $\frac{1}{2}$ believed he was a criminal. Attribution of homosexuality was a positive function of dissonance only when the speaker was seen as a student. Projection onto the student was greater among Ss with higher self-esteem.—*Journal abstract.*

PSYCHOANALYTIC THEORY

8039. Dominian, J. *Psychiatry and the Christian*. New York: Hawthorne, 1962. 135 p. \$3.50.—The author, a psychiatrist educated by Marists and Jesuits, writes for those wishing "a Christian evaluation of psychoanalysis." The 11 chapters fall into 4 sections: (a) pioneers in personality theory ("History of Psychological Medicine," "Foundations of Personality"), (b) pathology ("Psychoses," "Neurotic and Personality Disorders," "Sexual Problems," "Alcoholism"), (c) therapies ("Therapeutic Methods," "Child Psychiatry"), and (d) the religious view ("Responsibility," "The Role of the Priest," "Christianity and Psychiatry").—*A. Eglash.*

8040. Erikson, Erik H. *Young man Luther: A study in psychoanalysis and history*. New York: Norton, 1962. 288 p. \$1.75 (paper).—A paperback edition of a book first published in 1958.

8041. Farrell, B. A. (Oxford U.) Can psychoanalysis be refuted? *Inquiry*, 1961, 4(1), 16-36.—This paper examines the challenge that psychoanalytic theory cannot be refuted. It does so by considering the theory in its orthodox Freudian form, and in the main branches into which it can be divided—the theories of instincts, development, psychic structure, mental economics or defense, and symptom formation. The essential character of the generalizations and concepts of these branches is indicated, and the possibility of refuting each branch is considered. A considerable amount of scientific inquiry has been done into the concepts and generalizations of psychoanalysis. Relevant examples of these inquiries are noted, and the question is asked whether these scientific studies have in fact done anything to refute or support the various branches of psychoanalytic theory. The general conclusion is that the challenge is both important and a mistake.—*C. T. Morgan.*

8042. Jung, C. G., & Kerenyi, C. *Essays on a science of mythology*. New York: Harper & Row, 1963. 200 p. \$1.85 (paper).—A paper edition of the book originally published in 1949.

8043. Ramzy, Ishak. (Topeka, Kan.) Research aspects of psychoanalysis. *Psychoanal. Quart.*, 1963, 32(1), 58-76.—The problems inherent in psychoanalytic research are discussed. "The answers to the core questions of psychoanalysis have to be sought from within psychoanalysis itself. . . . It is hoped that we shall find it worth while to start by giving as much—or even more—attention to the investigation of method as we give to exploration of theory or to work on problem-centered research. It is method that defines problems and clarifies theory."—*J. Z. Elias.*

PHYSIOLOGICAL CORRELATES

8044. Baines, R. D., Guerink, N. A., & Schottstaedt, W. W. (U. Oklahoma Medical Cent.) Renal clearances of insulin and PAH associated with the stress of mental concentration. *Psychosom. Med.*, 1962, 24(6), 584-589.—Measures of kidney functioning (insulin and para-amino hippuric acid) were taken on 12 male patients without cardiac or kidney disease before, during, and after a speed-of-perception test (concentration stress). 4 control cases were run without the stress. An adjective checklist indicated more "tension" during the stress. While the controls had steady renal functioning the stress cases dropped in glomerular filtration rate and renal plasma flow. Conclusion: feelings of tension seem accompanied by decreased renal blood flow.—*W. G. Shipman.*

8045. Fiorica, V., & Muehl, S. (U. Iowa) Relationship between plasma levels of 17-hydroxycorticosteroids (17-OHCS) and a psychological measure of manifest anxiety. *Psychosom. Med.*, 1962, 24(6), 596-599.—There was a statistically significant difference in 17-OHCS level between the 19 introductory psychology students scoring highest and the 31 scoring lowest on the Taylor MA scale.—*W. G. Shipman.*

8046. Johannsen, W. J., Friedman, S. H., Feldman, E. I., & Negrete, A. (Wood VA Hosp., Milwaukee, Wis.) A re-examination of the hippuric acid-anxiety relationship. *Psychosom. Med.*, 1962, 24(6), 569-578.—3 measures of hippuric acid excretion were obtained from 45 hospitalized neurotics. These measures correlated .25-.30 with clinical interview ratings, .21-.27 with the Forced Choice MA scale, .37-.41 with the MA scale, and .06-.40 with other MMPI anxiety-related scales. In contrast to earlier work, the amount of excretion was unaffected by age, weight, and body surface area. (23 ref.)—*W. G. Shipman.*

THERAPY & GUIDANCE

8047. Sundberg, Norman D., & Tyler, Leona E. (U. Oregon) Clinical psychology: An introduction to research and practice. New York: Appleton-Century-Crofts, 1962. xviii, 564 p. \$7.00.—Written primarily for the beginning graduate student, "the whole framework of the book rests on a developmental approach, "focusing on a research orientation rather than technical skills. Clinical service and inquiry are related to decisions made by clinicians and patients in the course of assessment and therapy. Annotated references to suggested readings and research examples accompany most chapters. Appended are a list of tests, guide to history-taking, and indices of research and case examples. (30-p. ref.)—*H. P. David.*

8048. Tourlentes, T. T., Pollack, S. L., & Himwich, H. E. (Eds.) Research approaches to psychiatric problems: A symposium. New York: Grune & Stratton, 1962. ix, 238 p. \$5.50.—These papers and discussions constituted the 10th Anniversary (1960) Symposium of the Galesburg State Research Hospital. Following an introductory paper by H. W. Magoun on the development of concepts of organization and function of the brain, there are re-

ports on biochemical, genetic, psychologic, physiologic, and sociologic studies by M. Vogt; H. E. Lehmann, T. A. Ban, W. G. Boll, O. Ast, G. Nogradi, S. Sved, and J. St-Laurent; F. J. Kallmann; J. D. Benjamin; A. B. Hollingshead; J. S. Gottlieb and C. E. Frohman; J. T. Shurley; M. S. Zaks; R. Bird-whistell; F. Alexander; and H. F. Harlow. The papers serve primarily as reviews of the literature, of concepts, and often of the personal research efforts of the respective writers. The presentations generally are adequately documented with bibliographical references, even for the discussion sections. The one paper which may seem unusual to psychologists is that by Lehmann and his co-workers. Among their studies of psychotropic drug effects are: (a) the use of firefly tail extract in enzyme catalyzed reactions, (b) proteus bacteria, (c) carcinoma cells, (d) oat seedlings, (e) the hydra feeding reflex, and (f) dandelion sleep movements.—*I. N. Mensh.*

MEDICAL THERAPIES

Drug Therapy

8049. Hetherington, Ralph. (Liverpool U., England) Preoperative medication and memory: Pilot study. *Psychol. Rep.*, 1962, 11(2), 352.—"Results suggest . . . two qualitatively different kinds of post-operative amnesia: total amnesia related to the use of morphine and vespral (5 out of 26 cases) and partial amnesia related to the use of morphine and atropine (4 out of 29 cases)."—*B. J. House.*

8050. Horne, E. Porter, & Deabler, Herdis L. (U. Florida) Optimal beta motion in patients receiving insulin and chlorpromazine. *J. gen. Psychol.*, 1962, 67(2), 265-269.—Flash rate for perception of optimal motion was obtained from patients and hospital aides, as follows: (a) 23 patients showing good recovery from insulin, (b) 10 patients in immediate recovery phase from insulin, (c) 32 patients receiving chlorpromazine prescribed between 100 and 800 mgm. daily, (d) 29 organic patients, and (e) 12 hospital aides. Mean rate and % of cases for Ss perceiving motion on 50% or more trials for the groups of Ss were compared by t-tests. Beta motion was perceived readily at a fast rate by normal Ss. Patients on insulin treatment at least temporarily report a higher sensitivity to motion perception. The effect of tranquilizing drugs was in the direction of a lowered Beta motion perception and was more like that found in organic patients than in normals.—*Author abstract.*

8051. Palmieri, V. C. Questioni medico-legali afferenti l'uso dei farmaci psicotropi. [Medical and legal questions concerning the use of psychotropic drugs.] *Difesa. soc.*, 1962, 41(3), 7-28.—Psychotropic substances are subdivided into psycholeptic, psychoanaleptic and psychodysleptic drugs. Their use, abuse, dangers, contraindications, as well as their clinical, anatomical, and pathological effects are underlined. Uncontrolled use of psychotropic drugs produce the following medical and legal problems: (a) carelessness of prescription by physician, (b) lack of diagnosis of the disease, (c) omission of miorelaxant drugs in electroshock, (d) early dismissal of a tranquillized psychotic patient, (e) imprudent use of drug not yet completely experimented, (f) possible allergies, (g) simulation of neuroleptic conditions, (h) diagnosis of usage for athletes, and (i)

transitory changes in the capacity to understand and decide on the specific effect and side-effect of each drug.—*L. L'Abate.*

8052. Shaffer, John W., & Wolf, Sidney. (Spring Grove State Hosp., Md.) Attitude toward mental hospitals as an index of tranquilizing drug activity. *Psychol. Rep.*, 1962, 11(2), 403-405.—A group of 19 alcoholics treated with a placebo for 30 days showed a shift toward unfavorability of attitude toward mental hospitals and a significantly greater variance. 45 alcoholics treated with chlorthalidone showed no shift in attitude, but significantly less variance after 30 days. It was concluded that the drug is active.—*B. J. House.*

8053. Venturi, V. M. Farmaci psicomimetici e comportamento umano. [Psycho-active drugs and human behavior.] *Difesa. soc.*, 1962, 41(4), 7-20.—After a brief historical review of psychoactive drugs, they are classified according to their therapeutic effects. Behavioral toxicity can be based upon: occasional clinical observations, experiments on psychiatric patients, studies on healthy Ss, and research on laboratory animals. The advantages, shortcomings, and uncertainties of these different conditions are discussed.—*L. L'Abate.*

Shock Therapy

8054. Crumpton, Evelyn; Brill, Norman Q., Eiduson, Samuel, & Geller, Edward. The role of fear in electroconvulsive treatment. *J. nerv. ment. Dis.*, 1963, 136(1), 29-33.—The role of fear in electroconvulsive treatment (ECT) was studied in a group of 96 hospitalized male veteran psychiatric patients who were administered a course of oral or simulated ECT. While fear was found to be universally present, there was no evidence of a relationship degree of fear of ECT and psychiatric improvement nor between improvement and notions of guilt, punishment, or death-birth fantasies.—*N. H. Pronko.*

8055. Thorpe, J. G. (Banstead Hosp., Sutton, Surrey, England) The current status of prognostic indicators for electroconvulsive therapy. *Psychosom. Med.*, 1962, 24(6), 554-568.—"The literature on ECT prognostic indicators has been reviewed in relation to the following tests: the Funkenstein test, the sedation-threshold test, the amylal test, EEG responses, and psychological tests. No single test has yet been shown to have adequate reliability and/or validity" for ECT outcome prognosis. (54 ref.)—*W. G. Shipman.*

PSYCHOTHERAPY

8056. Anderson, A. Russell, & McLaughlin, Francis. (Baltimore, Md.) Some observations on psychoanalytic supervision. *Psychonal. Quart.*, 1963, 32(1), 77-93.—"Certain general principles relating to the functions and aims of supervisory analysis are discussed."—*J. Z. Elias.*

8057. Cantoni, Louis J., & Cantoni, Lucile. (Wayne State U.) Augmenting the psychotherapist's role. *Education*, 1962, 83(2), 102-104.—Attention is given to the difficulties a lay person may encounter in referring a friend to a psychotherapist. The layman who makes such a referral can facilitate the work of the professional therapist by reassuring his friend, when such reassurance is needed, that the

therapist is competent, concerned, and someone who can help him resolve serious personal problems.—*Author abstract.*

8058. Cartwright, Rosalind Dymond, & Lerner, Barbara. (U. Illinois Coll. Medicine, Chicago) Empathy, need to change and improvement with psychotherapy. *J. consult. Psychol.*, 1963, 27(2), 138-144.—To study the influence of: the patient's need to change, the therapist's experience level, the empathic understanding of the therapist, the sex of the patient and therapist, and the amount of psychological distance between them, on psychotherapy improvement, 28 patients in client-centered counseling were tested before and after therapy with scales built from the Kelly Role Construct Repertory Test. Patients' initial need to change was found to be directly related to improvement. Therapists' final level of understanding was also directly related. Patient's need and therapist's empathy considered jointly produced a prediction model for therapy length and success. 2 success groups were found: same-sex patients of experienced therapists whose distance from him the therapist initially reduced, and opposite-sex patients of inexperienced therapist whose distance from him the therapist initially increased.—*Journal abstract.*

8059. Feldstein, Stanley, & Jaffe, Joseph. (William Alanson White Inst., NYC) Language predictability as a function of psychotherapeutic interaction. *J. consult. Psychol.*, 1963, 27(2), 123-126.—An inverse relationship was hypothesized between number of psychotherapeutic interviews and therapists' errors in predicting their patients' speech. Recorded speech samples were obtained from Ss before their 1st psychotherapeutic interviews, and immediately after their 10th, 20th, and 30th interviews. The samples were transcribed verbatim, mutilated according to the Cloze Procedure and sent to the Ss' therapists and to 2 groups of therapists who served as controls. Instructions were to guess the deleted words. The returned transcriptions were scored for proportions of incorrect guesses. A trend analysis of the data did not support the hypothesis, although the therapists were found to be better predictors of their own patients' speech than of other patients' speech.—*Journal abstract.*

8060. Stokvis, B. Psychotherapie und Psychopharmakologie bei Psycho- und Somatoneurotikern: Heil-Erfolge oder Schein-Erfolge? [Psychotherapy and psychopharmacology in psycho- and somatic neurotics: Real or apparent cure?] *Acta psychother. psychosom.*, Basel, 1962, 10(3), 246-264.—"False positive results" following use of drugs is a conceptual error. In psychotherapy there are also "false cures" (spontaneous cures or improvements). Psychosomatic illness often shows improvement without psychotherapy. However, the author also warns against premature conclusions against psychotherapy.—*G. Rubin-Rabson.*

8061. Wolstein, B. Irrational despair. New York: Free Press Glencoe, 1962. 200 p. \$6.09.—This work criticizes the philosophy of existential analysis, particularly as it is adapted to psychotherapeutic practice. The author believes this philosophy to be self-contradictory and to lead to a personal position of irrationalism and meaningless despair.—*G. Elias.*

Therapeutic Process

8062. Frankl, Liselotte, & Hellman, Ilse. Symposium on child analysis: II. The ego's participation in the therapeutic alliance. *Int. J. Psychoanal.*, 1962, 43(4-5), 333-337.—Interpretations in child analysis should be geared to the patient's ego development (the part of the personality to which interpretations are conveyed), rather than to his age level, since the age and ego developments of a child are apt to differ.—G. Elias.

8063. Garma, A. The curative factors in psychoanalysis: Contributions to discussion. *Int. J. Psychoanal.*, 1962, 43(4-5), 221-224.—The most common mistake of interpretation which the author found among students of psychoanalysis lay in their attributing repressed aggression to behavior which reflected masochistic aggression. Understanding the role of the death instinct in psychoanalysis will help the analyst recognize masochistic behavior when it occurs.—G. Elias.

8064. Gitelson, M. The curative factors in psychoanalysis. Part I. *Int. J. Psychoanal.*, 1962, 43(4-5), 194-205.—The patient-therapist relationship involved in the positive transference and in the transference neurosis is the main curative vehicle in psychoanalytical treatment; and its importance transcends that of development of insight by the patient.—G. Elias.

8065. Heller, Kenneth; Meyers, Roger A., & Kline, Linda Vikan. (U. North Dakota) Interviewer behavior as a function of standardized client roles. *J. consult. Psychol.*, 1963, 27(2), 117-122.—In a study of interviewer behavior as a function of client stimulus input, it was hypothesized that interviewers confronted with client friendliness would respond with likeable, agreeable behavior while interviewers confronted with client hostility would respond with subtle counter hostility and anxiety. Also, it was hypothesized that client dominance would evoke passive interviewer behavior and client dependence would evoke interviewer activity and hyperresponsibility. To control client input, 4 actors were trained as clients and were presented in counter balanced order to 34 therapists-in-training for ½ hour interviews. On the basis of observer ratings, all hypotheses, except for interviewer anxiety, were confirmed. (18 ref.)—*Journal abstract*.

8066. McNair, Douglas M., Lorr, Maurice, & Callahan, Daniel M. (Veterans Benefits Office, Washington, D. C.) Patient and therapist influences on quitting psychotherapy. *J. consult. Psychol.*, 27(1), 10-17.—Groups of 106 early therapy Terminators and 176 Remainers differed significantly on 10-patient characteristics. Best predictors of duration were a Terminator-Remainer test battery plus rated motivation for psychotherapy. Therapists with marked interest in the patients' problems held significantly higher proportions of both predicted Terminators and Remainers in treatment. 7 other therapist characteristics did not substantially influence termination rates. Hiler's contention that predicted Terminators and Remainers respond differently to the same therapist attributes was not supported, but it was found that some therapists react differently to the 2 types of patients. The results indicate that Terminators and Remainers form distinguishable outpatient

populations. The former reject psychotherapy, perhaps because they lack the behavioral repertoire required for participation. (16 ref.)—*Journal abstract*.

8067. Mintz, Elizabeth E. (National Psychological Ass. Psychoanalysis, N. Y.) Transference in co-therapy groups. *J. consult. Psychol.*, 1963, 27(1), 34-39.—Literature on co-therapy groups, led jointly by male and female therapists, is discussed. Their advantages, against groups led by 2 like-sexed therapists, include: (a) reproduction of the original family situation, (b) opportunity for patients of both sexes to identify with a like-sexed therapist, and (c) opportunity to work out anxieties with a therapist of the more-dreaded sex. Case histories describe a Don-Juan type of man whose adjustment improved after working through defenses against Odipal feelings in co-therapy, and an immature borderline woman who overcame panic reactions to both sexes when reassured by the simultaneous presence of 2 parent-figures. Special transference phenomena, research possibilities, and possible problems in co-therapy are discussed.—*Journal abstract*.

8068. Nacht, S. The curative factors in psychoanalysis. Part II. *Int. J. Psychoanal.*, 1962, 43(4-5), 206-211.—The importance of the therapist's personality and the reactions it elicits in the patient are emphasized as the most significant elements in psychoanalysis.—G. Elias.

8069. Sandler, J. Research in psychoanalysis: The Hampstead Index as an instrument of psychoanalytic research. *Int. J. Psychoanal.*, 1962, 43(4-5), 287-291.—A description of the construction of the Hampstead Index which classifies case materials into psychoanalytically meaningful categories for quick reference.—G. Elias.

8070. Segal, Hanna. The curative factors in psychoanalysis. Part III. *Int. J. Psychoanal.*, 1962, 43(4-5), 212-217.—Insight gained in therapy leads to therapeutic changes by enabling the patient to regain parts of his lost self, face his conflicts, and re-orient himself to reality's needs.—G. Elias.

8071. Seguin, C. A. Love and psychotherapy: The psychotherapeutic Eros. *Acta psychother. psychosom.*, Basel, 1962, 10(3), 173-192.—The therapist's feelings toward his patient are critical in the relationship. Love exists in many varieties and the analytic notion of counter transference, Moreno's "tele," the existentialist "encounter," Buber's "I and Thou unity," and von Weizsäcker's "Weggenossenschaft" are considered. For the "love" of the therapist for his patient, the author proposes the term "psychotherapeutic Eros."—G. Rubin-Rabson.

8072. Siegman, Aron Wolfe, & Pope, Benjamin. (U. Maryland School Medicine) An empirical scale for the measurement of therapist specificity in the initial psychiatric interview. *Psychol. Rep.*, 1962, 11(2), 515-520.—A description of a scale and details of its construction motivated by recent findings that "the specificity level of the therapist's statements is a significant source of variance in patient's verbal responses. . . . Data were also presented which indicate that the scale can be used by untrained raters with adequate reliability. Some evidence is presented to demonstrate that the empirical scale does not depart from the concept of specificity on which the a priori scale was based."—B. J. House.

8073. Stoler, Norton. (U. Wisconsin) **Client likability: A variable in the study of psychotherapy.** *J. consult. Psychol.*, 1963, 27(2), 175-178.—A study designed to investigate the rateableness of client likability (CL), and the relationship of CL to success in psychotherapy. 10 clients were rated as to their likableness by 10 raters from 2 recorded segments taken from the therapy of each of the clients. The clients were classified into more successful and less successful categories prior to this study. 2 levels of rater familiarity with the cases were employed. It was found that: (a) CL was rated reliably by the familiar raters beyond the .01 level; (b) the more successful clients were liked significantly greater than the less successful clients, beyond the .05 level; and (c) CL correlated significantly with the Experiencing Strand of Rogers' Process Scale. It was concluded that CL can be reliably rated and that success in therapy is possibly related to this variable.—*Journal abstract.*

8074. Strickland, Bonnie R., & Crowne, Douglas P. (Emory U.) **Need for approval and the premature termination of psychotherapy.** *J. consult. Psychol.*, 1963, 27(2), 95-101.—This study tested the hypotheses that approval-dependent individuals tend prematurely to terminate psychotherapy, and are rated by therapists as more defensive and less improved than patients less approval-dependent. 85 psychiatric outpatients completed the Marlowe and Crowne Social Desirability scale (the measure of need for approval) and rated their improvement in psychotherapy. Therapists rated 30 of these patients on defensiveness, attitude towards patient, patient's attitude towards therapist, improvement, and satisfaction with therapy. Additional measures included diagnosis, social class, and ordinal position. Results confirmed the hypotheses. The high need for approval group terminated significantly ($p < .005$) earlier. Approval-motivated patients were generally given more negative ratings by therapists. Approval-motivated females rated themselves as more improved. Ordinal position and social class failed to predict stay in therapy. The implications of these findings were discussed. (25 ref.)—*Journal abstract.*

Group Therapy

8075. Harley, A. B., Jr. (Medical Coll. Hosp., Charleston, S. C.) **Group psychotherapy for parents of disturbed children.** *Ment. Hosp.*, 1963, 14(1), 14-19.—2 groups meeting weekly for limited periods are described in detail. "Group psychotherapy for parents of emotionally disturbed children is not a new idea, but one whose value warrants continued reappraisal because it helps to clarify the psychodynamics of family interaction."—L. Gurel.

8076. Reed, Julian W. (Johns Hopkins School Medicine, Baltimore) **Group therapy with asthmatic patients.** *Geriatrics*, 1962, 17(12), 823-830.—Procedures and practices with severe chronic asthma patients are described. Indications for individual and group psychotherapy are given. It is suggested that decrease in morbidity will ensue if this approach is more widely used.—D. T. Herman.

8077. Salzberg, H. C. (VA Hosp., Augusta, Ga.) **Effects of silence and redirection on verbal responses in group psychotherapy.** *Psychol. Rep.*, 1962, 11(2), 455-461.—"It was found that both

[silence and redirection] significantly influenced the interaction and the quality of response of" a group of psychiatric inpatients undergoing group psychotherapy ($N = 19$). "The magnitude of the effects indicated that verbal behavior, at least as measured grossly, follows lawful principles. It is hoped that this report will help to interest other investigators in refining measuring techniques and in studying the process of group psychotherapy with the goal of making it a more efficient technique."—B. J. House.

Special Therapies

8078. Fine, R., Daly, D., & Fine, L. (St. Louis State Hosp., Mo.) **Psychodance: An experiment in psychotherapy and training.** *Group Psychother.*, 1962, 15(3), 203-223.—Psychodance is a form of psychotherapy felt to be effective with groups of both nonverbal and verbal patients. These movements emphasize both self-expressive and interpersonal contact operations." The authors present a theoretical background and offer several examples of this technique. (18 ref.)—I. W. Kidorf.

8079. Moreno, J. L. (Moreno Inst., Beacon, N. Y.) **The "united role theory" and the drama.** *Group Psychother.*, 1962, 15(3), 253-254.—The inspiration of modern role theory comes from the drama and the theater. There are 3 dimensions of role development: the psychosomatic, psychodramatic, and the social. "It is of heuristic value for the clinician . . . to differentiate social from psychodramatic and psychosomatic roles . . . the final justification will come from . . . experiments further broadening and validating this hypothesis."—I. W. Kidorf.

8080. Murray, Neville, & Murray, Betty. (The Murray Clinic, San Antonio, Tex.) **Recognition and management of group self destruction in psychodrama.** *Group Psychother.*, 1962, 15(3), 200-202.—"Self destruction is a naturally occurring biological phenomenon. In terms of group activity such processes must . . . be recognized . . . the inability of the group to deal with the hostile and aggressive drives being turned inward, with a consequent disintegration of the group itself, is usually targeted toward the group leader . . . but may manifest itself in covert fashion."—I. W. Kidorf.

8081. Nichols, Florence L. (Toronto, Canada) **Psychiatrist and nurse as co-therapists in a psychodrama group.** *Group Psychother.*, 1962, 15(3), 197-199.—A psychiatrist and a nurse conducted a psychodrama group of 18 patients: 8 married couples and 2 others. At times the psychiatrist directed and the nurse was available for playing auxiliary roles; at other times the nurse directed. Results were felt to be good insofar as therapeutic progress was concerned.—I. W. Kidorf.

8082. Städeli, Hermann. (Wildhaus Switzerland) **Spieltherapie und Persönlichkeitsentwicklung.** [Play therapy and development of personality.] *Prax. Kinderpsychol. Kinderpsychiat.*, 1962, 11(7), 251-255.—How the child experiences play and how he is helped by the therapist are interpreted and illustrated with parallels in the magic, animistic, religious phases of mankind, and with Friedrich Schiller's distinction between the 2 play instincts: the instinct in the sense organs for matter and in reason for form. Freud's phases of child development are seen in the light of those parallels.—E. Katz.

8083. Stokvis-Warnaar, J., & Stokvis, B. (Leyden State U., Netherlands) **Psychodrama of enuresis nocturna in boys.** *Group Psychother.*, 1962, 15(3), 179-196.—A description of the treatment of 4 enuretic children, aged 12-15. 2 psychodrama sessions are discussed.—I. W. Kidorf.

HYPNOSIS

8084. Abrams, S. (Camarillo State Hosp., Calif.) **Short-term hypnotherapy of a schizophrenic patient.** *Amer. J. clin. Hypn.*, 1963, 5(4), 237-247.—The treatment of a case of schizophrenia on hypnotic levels is reported with emphasis upon selective elements involved.—M. V. Kline.

8085. Bentler, P. M., & Hilgard, Ernest R. (Stanford U.) **A comparison of group and individual induction of hypnosis with self-scoring and observer-scoring.** *Int. J. clin. exp. Hypn.*, 1963, 11(1), 49-54.—45 volunteer Ss were hypnotized in small groups and were subsequently hypnotized in individual sessions. In both sessions observer- and self-scores were recorded for all suggestions of the Harvard Group Scale adaptation of the Stanford Hypnotic Susceptibility Scale. The correlation between observer- and self-scores indicated that hypnotic susceptibility in the 2 sessions was very similar. Group self-scores were also found to predict quite accurately objective hypnotist scores of the subsequent individual session. A 2nd sample of 34 nonvolunteer male Ss were hypnotized individually following Form A of the Stanford scale. Self-scoring was found to be remarkably similar to observer ratings, and the results of group administration very comparable to those of individual administration of hypnotic susceptibility tests.—C. S. Moss.

8086. Das, J. P. (Utkal U.) **Yoga and hypnosis.** *Int. J. clin. exp. Hypn.*, 1963, 11(1), 31-37.—The nature of Yoga and Samadhi (concentration) was described. A comparison with hypnosis revealed widely differing objectives, but many points of functional and methodological similarity.—C. S. Moss.

8087. Deckert, G. H., & West, L. J. (U. Oklahoma) **Amer. J. clin. Hypn., 1963, 5(4), 256-276.—This paper reviews the literature of hypnosis and experimental psychopathology. Approximately 175 papers under the categories of hypnosis and induced alterations of perception, emotion, and behavior are summarized.—M. V. Kline.**

8088. Dorcus, R. M. (U. California, Los Angeles) **Fallacies in predications of susceptibility to hypnosis based upon personality characteristics.** *Amer. J. clin. Hypn.*, 1963, 5(3), 163-170.—The reasons for resistance to the induction of hypnosis are examined in relation to the problem of susceptibility.—M. V. Kline.

8089. Gindes, Bernard C. **Delusional production under hypnosis.** *Int. J. clin. exp. Hypn.*, 1963, 11(1), 1-10.—Hypnosis creates a situation for the development of fantasies which carry over into waking life as delusions. The patient, susceptible to common impressions of hypnosis, may use the opportunity to indulge ordinarily inhibited impulses. The therapist should be alert to the jeopardy of his involvement in such delusions.—C. S. Moss.

8090. Hilgard, Ernest R. (Stanford U.) **Ability to resist suggestions within the hypnotic state:**

Responsiveness to conflicting communications. *Psychol. Rep.*, 1963, 12(1), 3-13.—"Of 12 moderately susceptible Ss instructed to resist under hypnosis selected items passed in earlier sessions, 1 was unable to resist at all, 5 were able to resist on one but not both of the attempted items, and 6 were able to resist both. . . . For most Ss the hypnotist's suggestions remained effective, but they were countered by extreme exertion. The situation is interpreted as one of resolving conflict between conflicting communications, the resolution depending upon the relative strengths of the parties to the conflict. It is pointed out that the communications between the hypnotist and S are very complex, in this instance involving at least four kinds of communication: instructions, suggestions, challenges, and invitations to resist."—B. J. House.

8091. Hilgard, Ernest R., & Bentler, P. M. (Stanford U.) **Predicting hypnotizability from the Maudsley Personality Inventory.** *Brit. J. Psychol.*, 1963, 54(1), 63-69.—In an attempt to repeat the findings of Furneaux and Gibson, 142 undergraduate students at Stanford were hypnotized by the procedures of the Stanford Hypnotic Susceptibility Scale and a group adaptation of this scale. All Ss were also given the Maudsley Personality Inventory (MPI), including the Extraversion, Neuroticism, and Lie scales. When the Ss were subdivided into personality classifications according to the procedures of the Furneaux and Gibson study, significant differences between subgroups were found, but these were opposite to the significant differences found in the London study, "liars" being below average in hypnotizability in England, and above in America, and, among the "honest" Ss, Stable Extroverts and Neurotic Introverts being more hypnotizable than Neurotic Extraverts and Stable Introverts in England, less hypnotizable in America. Because of instability in successive samples in America, and some differences between English subsamples, it is suggested that elaborate hypotheses are not in order until there has been further replication both in England and America. Correlations between scores on individual MPI scales and hypnotic susceptibility show a most unsatisfactory variation from sample to sample; hence the most acceptable conclusion must be that the MPI cannot yet be used as a predictor of susceptibility to hypnosis.—*Journal abstract.*

8092. Hubbard, O. E. (U. Mississippi Medical Cent.) **Hypnotherapy of a patient complaining of a speech defect (following Lindner's method of hypnoanalysis).** *Amer. J. clin. Hypn.*, 1963, 5(4), 281-294.—A case report of hypnoanalysis in a case of speech disorder, with emphasis upon directive hypnotic techniques.—M. V. Kline.

8093. Kaim, B. T. (Apt. Aereo 1782, Cali, Colombia) **Some dangerous techniques of hypnotic induction.** *Amer. J. clin. Hypn.*, 1963, 5(3), 171-176.—The author reviews and comments on the dangers inherent in different kinds of hypnotic techniques.—M. V. Kline.

8094. Klemperer, E. (315 E. 77th St., NYC) **Symptom removal by revivification.** *Amer. J. clin. Hypn.*, 1963, 5(4), 277-280.—Hypnoanalysis and symptom removal are discussed in the context of total psychotherapy.—M. V. Kline.

8095. Krippner, S. (Kent State U.) **Hypnosis and reading improvement among university students.** *Amer. J. clin. Hypn.*, 1963, 5(3), 187-193.—The role of hypnosis in the treatment of educational problems in the academic setting with emphasis upon reading is evaluated.—M. V. Kline.

8096. Levitt, Eugene E. (Indiana U. Medical Cent.) **A comment on "a paradigm for determining the clinical relevance of hypnotically induced psychopathology."** *Psychol. Bull.*, 1963, 60(3), 326-329.—A critique of the paper by Reyher in which he sets forth a model for experiments in the hypnotic induction of emotional states, and attacks all earlier research which fails to conform to this model. It is pointed out that Reyher's approach assumes that various psychoanalytic hypotheses of the origins of emotional states are empirically verified. He supposes erroneously that hypnotically suggesting a state directly always specifies the behavior which should follow from that state. He assumes, without empirical evidence, that suggesting a state in a "pure" form renders consequent experimental results inapplicable to clinical practice. Reyher's rejection of the earlier work, as well as much of his claim for his model, is found to be without adequate basis.—*Journal abstract.*

8097. Levitt, Eugene E., & Hershman, Seymour. (Indiana U. Medical Cent.) **The clinical practice of hypnosis in the United States: A preliminary survey.** *Int. J. clin. exp. Hypn.*, 1963, 11(1), 55-65.—A questionnaire survey of 301 clinical practitioners of hypnosis suggests that success in induction is unrelated to experience. Children and adolescents are claimed to be more susceptible than adults, but no sex differences were reported. Type of training is generally unrelated to reported success. Percentages of patients who attain various levels of hypnotic depth are generally consistent with earlier reports. Unexpected reactions to hypnosis were reported by 1/4 of respondents. Large variances indicate many exceptions to any generalizations.—C. S. Moss.

8098. Pulver, Sydney E. (Pennsylvania Hosp.) **Delusions following hypnosis.** *Int. J. clin. exp. Hypn.*, 1963, 11(1), 11-22.—Delusions occurring after hypnosis in the nonpsychotic patient are usually a result of the interplay of 3 factors. (a) the development of rapid, tense, transference reactions in hypnosis; (b) the presence of major defects in the patient's character structure; and (c) the occurrence of countertransference reactions on the part of the hypnotist which touch on a specific area of conflict within the patient. The presence of a chaperon or the use of tape recorders are not satisfactory preventive measures. Rather, the physician using hypnosis should focus upon: (a) preliminary psychological evaluation and selection of patients free from disposition to delusion formation, (b) identification of transference reactions and a willingness to discuss with patients, (c) awareness of his own emotional responses to the patient. Basic courses in psychiatry are recommended.—C. S. Moss.

8099. Reyher, Joseph. (Michigan State U.) **A reply to Levitt's comments.** *Psychol. Bull.*, 1963, 60(3), 330-332.—Levitt's critique (see 37: 8096) indicates that he missed the main point of the paradigm, and that he misinterpreted a variety of other matters. An effort is made to clarify the issues involved by citing sections of the original article and

by further discussion when necessary. Particular emphasis is placed upon the paradigm as a method for testing theories of psychopathology which assume genotypic-phenotypic relationships. The need for proper control groups is reiterated, and the paradigm is viewed as an attempt to bring the data of clinical and experimental methods closer into congruence.—*Journal abstract.*

8100. Richardson, T. A. (200 Dennis St., Minden, La.) **Hypnotherapy in frigidity.** *Amer. J. clin. Hypn.*, 1963, 5(3), 194-199.—Hypnotherapy was employed to treat frigidity in a total of 76 patients. Results are given and analyzed. The overall pretreatment percentage of climaxes was approximately 24%, the overall post-treatment average was about 84%.—M. V. Kline.

8101. Schulman, Robert E., & London, Perry. (U. Illinois) **Hypnotic susceptibility and MMPI profiles.** *J. consult. Psychol.*, 1963, 27(2), 157-160.—4 groups totaling 87 undergraduate females of relatively different hypnotic susceptibility as determined by Form A of the Stanford Scale of Hypnotic Susceptibility completed the questionnaire form of the MMPI. The most susceptible group scored significantly lower than the others on the Pd scale ($p < .01$), but no other significant differences were found between groups. Mean scores of all susceptibility groups fell within the normal range, suggesting that hypnotic susceptibility is not grossly related to psychopathology. (18 ref.)—*Journal abstract.*

8102. Shor, Ronald E., & Orne, Emily Carota. (Harvard Medical School) **Norms of the Harvard Group Scale of Hypnotic Susceptibility, form A.** *Int. J. clin. exp. Hypn.*, 1963, 11(1), 39-47.—Norms are presented on an adaptation for group administration with self-report scoring of Weitzenhoffer and Hilgard's Stanford Hypnotic Susceptibility Scale, Form A. Comparisons are made between a sample of 132 undergraduates given the new group-administered version and 4 reference samples including the original Stanford University normative group. Findings indicate that the group-administered version yields norms congruent with the individually-administered original. Diagnostic evaluations of hypnotic depth after one or more additional hypnotic training sessions tentatively indicate that the adapted scale is an effective predictor of subsequent hypnotic depth.—*Author abstract.*

8103. Slater, R. C., & Flores, L. S. (Special Medical Clinic, Blythe, Calif.) **Hypnosis in organic symptom removal: A temporary removal of an organic paralysis by hypnosis.** *Amer. J. clin. Hypn.*, 1963, 5(4), 248-255.—A detailed case study on the use of hypnosis with beneficial results in an instance of eventually proved brain disease.—M. V. Kline.

8104. Weitzenhoffer, A. M. (U. Oklahoma Medical Center) **The nature of hypnosis. Part I.** *Amer. J. clin. Hypn.*, 1963, 5(4), 295-321.—Part I of a conceptual outline of the nature of hypnosis.—M. V. Kline.

DREAMS

8105. Baldridge, B. J., Whitman, R. M., & Kramer, M. (U. Cincinnati Coll. Medicine) **A simplified method for detecting eye movements during dreaming.** *Psychosom. Med.*, 1963, 25(1),

78-82.—A simple, sensitive, portable, inexpensive ceramic strain gauge is described.—*W. G. Shipman.*

8106. Freud, Sigmund. *On dreams.* New York: Norton, 1963. 120 p. \$.95 (paper).—A paper edition of the book originally published in 1952.

8107. Hall, Calvin, & Domhoff, Bill. (Inst. Dream Research) *A ubiquitous sex difference in dreams.* *J. abnorm. soc. Psychol.*, 1963, 66(3), 278-280.—Dream narratives from 1399 men and from 1418 women indicate that men dream more about other men than they do about women, whereas women dream about men and women in almost equal proportions. This finding is explained in terms of (a) a conflict theory of dreaming and (b) Freud's theory of the male and female Oedipus complex.—*Journal abstract.*

8108. Roth, N. Reply to Dr. Erika Fromm. *Percept. mot. Skills*, 1962, 15(2), 282.—Roth replies to an article by Fromm (see 37: 5251) criticizing his earlier article.—*W. H. Guertin.*

CASE HISTORIES

8109. Menninger, Karl A., Mayman, Martin, & Pruyser, Paul W. (Menninger Clinic) *A manual for psychiatric case study.* (2nd ed.) New York: Grune & Stratton, 1962. xi, 189 p. \$.55.—A guide for the practicing psychiatrist in the collection, organization, and interpretation of the data of a psychiatric case study.—*C. H. Milley.*

PSYCHIATRIC SERVICES

8110. Smith, Ora R. (Pennsylvania Psychiatric Inst., Phila.) *Criteria for the differential use of treatment settings for children and emotional disorders.* New York: Child Welfare League America, 1962. iii, 28 p. \$.90.—The intake criteria of 4 different treatment centers—a closed (state) hospital, a voluntary psychiatric children's hospital, an open-type residential center, and a day-treatment center—are discussed in some detail by representatives of each in this monograph made up of papers presented at an Eastern Regional Conference of the Child Welfare League of America (April 1961). Despite wide differences in the criteria for admission, there is general agreement as to the deficiencies in most admission procedures, chiefly in terms of inadequate understanding by referring agencies of the services offered, undue rigidity, concern with irrelevant variables, and lack of validity for selection criteria currently in use.—*L. D. Summers, Jr.*

Institutional Care

8111. Britton, Joseph H., & Britton, Jean O. (Pennsylvania State U.) *Expectations for older persons in a rural community.* *Geriatrics*, 1962, 17(9), 602-608.—Interviews were held with one adult of 90% (N = 487) of the households with regard to suggested solutions for anecdotally posed problems of the elderly. Professional and institutional care tended to be suggested more frequently than family care of informal assistance, but actual services of professional persons were not in great demand by the elderly.—*D. T. Herman.*

8112. Butterfield, Earl C., & Warren, Sue A. (Southbury Training School, Conn.) *Prediction of attendant tenure.* *J. appl. Psychol.*, 1963, 47(2),

101-103.—MMPI L, K, Pd, and Ma subscales were administered to 109 persons who were subsequently hired for the position of cottage attendant in an institution for the mentally retarded. 3 subscales and a composite score from all 4 of them distinguished significantly between attendants who were fired during the first 6 months of employment and attendants who were retained in employment and did not receive unfavorable evaluations from their immediate supervisors.—*Journal abstract.*

8113. Group for the Advancement of Psychiatry, Committee on psychiatric Nursing. *Toward therapeutic care: A guide for those who work with the mentally ill.* *GAP Rep.*, 1961, No. 51. vi, 104 p.—Therapeutic effectiveness in helping psychiatric patients depends upon understanding the patient's behavior and upon responding adequately to the behavior. Part I is a revision of "Therapeutic Use of the Self" (see 31: 9065). "It is important for . . . personnel to understand and to be aware of the feelings, thoughts, and actions of the patients. They should have a similar understanding of their own thoughts and actions in any situation." Part II has 22 presentations of patient-personnel and intrastaff interactions. These cases may help personnel acquire better self-appraisal and reexamine the relevancies of responses to the patient. (76 ref.)—*E. deT. Kooser.*

8114. Müller-Küppers, M. (Heidelberg, Germany) *Zur beruflichen Stellung des Kinderpsychiaters und seiner Mitarbeiter unter besonderer Berücksichtigung der stationären Kinderpsychiatrie.* [On the Professional position of the child psychiatrist and his co-workers with special consideration of child psychiatry in institutions.] *Prax. Kinderpsychol. Kinderpsychiat.*, 1962, 11(7), 247-251.—The problems (a) how to win young physicians for this field and (b) the team work of the psychiatrist with representatives of the other professions on the staff are analysed. Jobs and functions of psychologists, "psychagogues," nurses, group workers, educators, etc., are described.—*E. Katz.*

8115. van Krevelen, D. Arn. *Zur Problematik der therapeutischen Kuppelung bei neurotischen Jugendlichen.* [The problem of therapeutic grouping in neurotic adolescents.] *Acta psychother. psychosom.*, Basel, 1962, 10(3), 233-245.—Spontaneous "pathological" pairing may gain therapeutic importance, thereby complicating the whole process. To utilize the natural attraction among patients, it is suggested that the eldest patients be cared for by the youngest nurses.—*G. Rubin-Rabson.*

Community Services

8116. Dibner, Andrew S., Palmer, Robert D., Cohen, Benjamin, & Gofstein, Arnold G. (VA Mental Hygiene Clinic, Boston, Mass.) *The use of an open-ended group in the intake procedure of a mental hygiene unit.* *J. consult. Psychol.*, 1963, 27(1), 83-88.—Several clinics have found screening in small groups on intake to be beneficial in reducing waiting lists and evaluating patients for treatment. Others have used small short-term groups to orient and educate patients to treatment. We have run a continuous, open-ended intake group for these purposes and to provide nuclei for other closed therapy groups. The result has been elimination of the waiting list and demonstrated improvement in patient

preparation for psychotherapy. During a period of 18 months, the 61 patients referred to the open-ended group stayed significantly longer in treatment than a control group. A replication using another therapist yielded a similar result.—*Journal abstract.*

8117. Riese, Hertha. (Educational Therapy Cent., Richmond, Va.) *Heal the hurt child.* Chicago, Ill.: Univer. Chicago Press, 1962. xxiii, 615 p. \$10.00.—A combined psychotherapeutic and educational approach is emphasized, based upon 20 years experience at a center for the treatment of extremely deprived Negro children elsewhere diagnosed as "untreatable." The case for a total care program—encompassing social support, education, therapy, and prevention—is extensively documented. Dynamic case histories, notes, and chapter-by-chapter lists of collateral readings are appended.—*C. M. Franks.*

8118. Sini, S. Sull 'organizzazione dei servizi sociali di igiene mentale. [The organization of social services of mental hygiene.] *Difesa soc.*, 1963, 41(3), 115-143.—Mental hygiene encompasses other specialities besides medicine (psychiatry, sociology, pedagogy, psychology, criminology, politics, etc.). On the basis of this assumption, an organizational chart of social services to encompass the total human being from conception to old age is presented and discussed.—*L. L'Abate.*

Case Work

COUNSELING & GUIDANCE

8119. Cantoni, Louis J., & Cantoni, Lucile. (Wayne State U.) *The case for counseling by friends.* *Blind American*, 1962, 2(4), 8-14.—Presenting a rationale for counseling by lay persons, the authors define the therapeutic role of interested, perceptive friends who are sought out by the troubled. Friends as counselors do not replace psychologists, psychiatrists, or social workers. There is an appropriate and natural continuity in the functions of helping friends and of professionals. Occasions and techniques for referral of disturbed friends or relatives by laymen to professionals are discussed. Members of the various helping professions should educate interested lay persons in therapeutic understandings and techniques. A community better informed regarding its counseling responsibility will not use less professional counseling but more and will use it more effectively.—*Author abstract.*

8120. Filter, Raymond O. *One road to heaven.* New York: Pageant, 1962. 82 p. \$3.00.—A counselor's reflections on conflict and adjustment in non-academic terms.—*F. T. Severin.*

8121. Wells, Cecilia G. (Detroit, Mich.) *Psychodrama and creative counseling in the elementary school.* *Group Psychother.*, 1962, 15(3), 244-252.—Several illustrations of role playing techniques in an elementary school are given. Limitations made it necessary to vary traditional procedures and "props" of sociodrama and psychodrama. Such limitations stimulated more creative effort on the part of the counselor.—*I. W. Kidorf.*

MARRIAGE & FAMILY PROBLEMS

8122. Davids, A., & Rosengren, W. R. (Brown U.) *Social stability and psychological adjustment during pregnancy.* *Psychosom. Med.*, 1962, 24(6),

579-583.—"Thirty pregnant women, referred by obstetricians in private practice, were seen for a sociological interview and were administered a battery of psychological assessment procedures. Women who were dissatisfied with their social status and were otherwise socially unstable were found to be generally less happy, less happy to be pregnant, more anxious, higher on the personality syndrome of alienation, and more emotionally maladjusted."—*W. G. Shipman.*

8123. Dyer, William G. (Brigham Young U.) *Analyzing marital adjustment using role theory.* *Marriage fam. Liv.*, 1962, 24(4), 371-375.—Using role analysis as the basic framework, the major factors in marital adjustment are (a) normative orientations, (b) position-role, (c) role expectations and (d) sanctions. Points of conflict and possible methods of adjustment are considered in the light of these factors. In some cases altering the situation that may be fostering certain role behaviors or expectations may make for a reduction in conflict without the necessity for the partners having to make some alteration of their norms, roles or role expectations.—*H. D. Arbitman.*

8124. Shipman, Gordon. (U. Wisconsin) *The use of autobiographies in marriage education.* *Marriage fam. Liv.*, 1962, 24(4), 393-398.—Autobiographical material may be used beneficially in a marriage course to ventilate the student's emotional problems and to enhance his personality development. Important cautions to be observed are: (a) the autobiography writing should not be mandatory, (b) it should be confidential, (c) the instructor should make marginal notes on the paper, (d) students should consult with the instructor on any problems arising as a result of the assignment, (e) class work should be related to the assignment, (f) an outline of possible topics to cover should be provided for the student, and (g) the instructor should permit either an oral or written report, or a combination of the 2.—*H. D. Arbitman.*

8125. Tharp, Roland G. (U. Arizona) *Psychological patterning in marriage.* *Psychol. Bull.*, 1963, 60(2), 97-117.—Theory and research are reviewed and integrated with sociological data on mate selection and marital happiness. Topics included are homogeneity, interpersonal perception, identifications, complementary needs, and role theory. Modal marriage-role expectations exist; they are different for the sexes, and are established by parental identifications. The husband role is more instrumental; the wife role more integrative. For the marital happiness of both spouses, the husband's role performance is more crucial than that of the wife. For all marriages—both modal and unique—happiness is a function of the satisfaction of those needs and expectations which, for each individual, are specific to marriage. Thus, investigation of role-specific need dispositions is preferable to conventional approaches which deal with general personality needs. (82 ref.)—*Journal abstract.*

MENTAL HEALTH & REHABILITATION

8126. Manis, J. G., Brawer, M. J., Hunt, C. L., & Kercher, L. C. (Western Michigan U.) *Validating a mental health scale.* *Amer. sociol. Rev.*, 1963, 28(1), 108-116.—An attempt was made to validate the 22-item mental health scale used in the New York Midtown study (see 37: 1565) by both the "known groups" and "independent criteria" procedures. Sam-

ples were drawn from a state mental hospital, a large state university, a small community in a nearby county, and from residents from the same county as the hospital and university. The scale appears to be more valid for group than individual differences. The authors conclude that "The mental health scales, less accurate in individual diagnosis, permit survey studies of random samples of communities, social classes, ethnic groups and other social units."—*L. Berkowitz*.

8127. Palmer, C. E. (Northwestern State Coll.) **The role of religion in rehabilitation. Part I.** *Rehabilit. Lit.*, 1962, 23(12), 362-370.—Rehabilitation was defined and considered in terms of religious beliefs, the differences in depth of conviction, and the nature of the religious beliefs of individuals. The role of religion as a motivating factor for the providing of rehabilitation services was discussed, and a question was raised concerning a relationship between the religious experience of a person and his effectiveness as a therapist. (139 ref.)—*W. D.*

ABNORMAL PSYCHOLOGY

8128. Bauer, Julius. (Loma Linda U. Coll. Medicine, Los Angeles) **Mental illness, mental retardation, mental hygiene in modern culture.** *Acta genet. med. gemellolog.*, Rome, 1963, 12(1), 9-21.—The deterioration of mental health of our population is usually interpreted as the result of the increased modern life stress in our atomic age with its implications of the "cold war." It is not a greater cultural life stress, however, but rather a lower individual resistance to it that accounts for the increased frequency of psychoneuroses in modern society. The term "mental retardation" comprises 2 categories: 1 is caused by genetic factors or acquired intra- and extrauterine diseases of infancy and childhood; the 2nd is due to functional mental retardation if the normal individual genetic endowment has not developed to its full capacity and has persisted in a state of immaturity without any interference of a disease. The characteristics of such functional mental retardation (psychic infantilism) and their manifestation in society are outlined in detail. Instincts and emotions insufficiently inhibited by intellect determine the behavior of the functionally mentally retarded. Deficient ethics and responsibility are very often consequences of deficient intellect. Conformism is a subterfuge and evasion from personal responsibility. Exuberant imagination and fantasy of an immature mind, uncontrolled by intellect, becoming prevalent in a schizoid personality have eliminated the concept of beauty—and this is the essence of aesthetics—from creative art, music, and literature. Mental hygiene is chiefly the job of the family home and the teachers in primary and secondary schools. Education is more than drill and training. Teachers cannot be replaced by machines. Automation techniques, recently used even for personality assessment, are out of place in this field.—*Journal abstract*.

8129. Carp, E. A. D. E. **Der Griff im psychologisch-verstehenden Weltbild: Der neurasthenische, der melancholische, der manische Mensch.** [The concept of the psychologically understood world in terms of the neurasthenic, the melancholic, and the manic individual.] *Acta psychother. psychosom.*,

Basel, 1962, 10(3), 191-205.—Jaspers postulates an approach to the world as psychologically comprehending. Various psychopathological conditions can be interpreted as a fixation in this kind of world.—*G. Rubin-Rabson*.

8130. Wilson, Ronald S. (U. Iowa) **On behavior pathology.** *Psychol. Bull.*, 1963, 60(2), 130-146.—A selective review of the literature suggests that the same major features of behavior pathology appear in both the clinical studies of human disorders and experimentally produced behavior disorders in animals. In the clinical area the 3 major features are: presence of an intense anxiety reaction, development of stereotyped and repetitive symptoms, and fixation of needs and emotions at an immature level. Studies of experimental neurosis reveal that acute anxiety and formation of stereotyped, repetitive symptoms are characteristic of this area as well, and related studies point to fixation as a consequence of infantile frustration. It would appear that the same principles control behavior pathology in several species and are applicable in a wide range of situations. (26 ref.)—*Journal abstract*.

8131. Wyrsh, Jakob. **Don Juan und die psychopathologie.** [Don Juan and psychopathology.] *Confin. psychiat.*, Basel, 1962, 5(2-3), 61-95.—How is it that we experience the frivolous and cynical Don Juan's end as tragic? But we usually overlook Don Juan's defiance of his visitor from the dead, his hybris in the intoxication of his sensual self-assertion which leads, of necessity, to his tragic downfall. Poets and psychopathologists will continue to vie for the last word about the secret of his fascination.—*E. W. Eng.*

PHYSICAL HANDICAPS

Blineness

Deafness

8132. Birch, J. R., Stuckless, E. R., & Birch, J. W. (Western Pennsylvania School Deaf) **An eleven-year study of predicting school achievement in young deaf children.** *Amer. Ann. Deaf.*, 1963, 108(2), 236-240.—Leiter International Performance Scale (LIPS) intelligence quotients, teachers' evaluations of learning potentials, teachers' estimates of educational achievement, and Stanford Achievement Test (SAT) measures were intercorrelated on 25 Ss (15 boys, 10 girls). LIPS correlated .43 to .63 with achievement measures; teachers' estimates of learning potential correlated .53 to .71 with SAT measures. All intercorrelations are presented; and the results, implications, and suggestions for further research are discussed.—*T. E. Newland*.

8133. Debot-Sevrin, M. R. **Étude des conséquences possible de la surdi-mutité.** [Study of possible consequences of deafness.] *Bull. Psychol. scol. Orient.*, 1962, 11, 13-23.—An experimental study of 40 deaf-and-dumb children by means of drawings and personality tests. The author concludes that re-education must begin as early as possible, in order to avoid dangerous consequences of deafness.—*R. Piret*.

SPEECH DEFECTS

8134. Mahrer, Alvin R., & Young, Harl H. (Denver VA Hosp.) **The onset of stuttering.** *J. gen. Psychol.*, 1962, 67(2), 241-250.—Stuttering is

to be understood and described as goal-directed behavior. 2 sets of psychological conditions which result in stuttering are proposed: (a) stuttering is a behavior which moves in the direction of meaningful psychological goals which serve in turn as a pathway toward subsequent goals; (b) stuttering is a behavioral expression of the relationship among meaningful goals, a behavior which moves in the direction of preserving or enhancing a given state of integration among the goals. Clinical and experimental hypotheses were offered in the form of conditions which culminate in the onset of stuttering. The conditions for the onset of both types of stuttering constitute a rationale for a research program on the onset of stuttering.—*Author abstract.*

NEUROLOGICAL DISORDERS

8135. **Boydston, Eleanor H. (Ed.)** Implications for maternal and child health and crippled children's programs. Berkeley, Calif.: Univer. California Press, 1961. 151 p.—Proceedings of the Regional Institute on Neurologically Handicapping Conditions in Children. 23 papers are presented, including several papers on the diagnosis and care of epilepsy and mild brain damage in children.—*E. L. Borrowman.*

8136. **Drillien, C. M.** (U. Edinburgh, Scotland) Obstetric hazard, mental retardation and behavior disturbance in primary school. *Developm. Med. child Neurol.*, 1963, 5(1), 3-13.—Objective data on 461 children, followed from birth to age 7, seen in the home by the same investigator at least 7 times during the first 5 yr., provided the basis "for thinking that obstetrical hazard is not a major factor in the causation of gross defect. An excess of behavior disturbance observed in school was significantly associated with low birth weight, pregnancy and delivery complications and postnatal familial distress. It is suggested that these obstetrical hazards may lower the child's resistance to adverse factors in the post-natal environment." The possible contributive role of mishandling of the handicapped child by parents and society is explored.—*T. E. Newland.*

8137. **Jabbour, J. T., & Lundervold, A.** Hemiplegia: A clinical and electroencephalographic study in childhood. *Developm. Med. child Neurol.*, 1963, 5(1), 24-31.—57 children were studied for an average of 4.5 yr. Assessed on IQ, speech, and behavior, mental ability was related to age, type of onset, cause, number of insults suffered, and to the association of the hemiplegia with seizures. A poorer prognosis was found in hemiplegia of gradual onset before 4 yr. of age and associated with seizures, trauma, or multiple insults. Epilepsy was found in only 23 patients on follow-up. Poor control of fits was associated with lower IQ, speech, and behavior levels than those of the seizure-free patients. Lesions were correctly localized by EEG in 98% of the cases. Abnormal EEG tracings and the prognosis in terms of IQ, speech, and behavior were inversely related.—*T. E. Newland.*

8138. **Macoun, Stephen.** Migraine in school children. *Developm. Med. child Neurol.*, 1963, 5(1), 62-63.—This is a note on Bo Bille's monograph on the subject. Studying 99.3% of the children, aged 7-15 yr., in Upsala in 1955, it was found that 4%

of the children had had migraine, that (in some) there was a gradual increase in attacks, though in 35%-50% of the cases it had disappeared after 6 yr. Associated psychological and physical conditions and caution in diagnosis are discussed.—*T. E. Newland.*

8139. **Wood, Grace E.** (North Bristol, England) Some observations on 141 cases of infantile hemiplegia. *Cerebral Palsy Rev.*, 1963, 24(1), 11-16.—Data reported on the cases seen in the Bristol area include incidence (approximately $\frac{1}{3}$ of the total cerebral palsied), birth information, possible etiological factors (a "multifactorial cause"), parental, and socioeconomic information. Included also are data on age of first discovery of the condition (70% after 6 mo.), age of walking (by age of 4, except in cases of severe mental defect), age of talking (45% by age of 12-18 mo.), age of onset of seizures (39 of the 61 were from birth), and type of education provided (68 in the regular school, 27 in special educational facilities). Treatment and employment are discussed.—*T. E. Newland.*

Brain Damage

8140. **Cole, Malvin, & Zangwill, O. L.** (National Hosp., London, England) Déjà vu in temporal lobe epilepsy. *J. Neurol. Neurosurg. Psychiat.*, 1963, 26(1), 37-38.—"The incidence of déjà vu in 27 cases of temporal lobe epilepsy has been ascertained, with special reference to the laterality of the focus, the handedness of the patient, and the presence or absence of dysphasia. A slight predominance of minor hemisphere foci (significant at the 5% level) has been established. None the less, it is considered inadvisable on present evidence to accept déjà vu as a lateralizing sign of temporal lobe dysfunction. 10 out of 13 patients with déjà vu were found to have tumors of the temporal lobe."—*M. L. Simmel.*

8141. **Costa, Louis D., Vaughan, Herbert G., Jr., Levita, Eric, & Farber, Norman.** (Albert Einstein Coll. Medicine) Purdue Pegboard as a predictor of the presence and laterality of cerebral lesions. *J. consult. Psychol.*, 1963, 27(2), 133-137.—A portion of the Purdue Pegboard Test taking 3 minutes to administer was given to 80 patients on a neurology service of a general hospital. With optimum cutoff scores it was possible to indicate the presence of laterality or diffuseness of brain damage in 70% of the cases. Brain damage without regard to lateralization was correctly determined in 90% of cases with 7.5% false negatives and 2.5% false positive. The test was then cross-validated on 65 consecutive admissions with small loss in predictive efficiency. The data support the use of sensorimotor rather than perceptual cognitive tests in screening for brain damage because they are less dependent upon educational background and because of the lateralizing significance of sensorimotor dysfunction.—*Journal abstract.*

8142. **Fitzhugh, K. B., Fitzhugh, L. C., & Reitan, R. M.** (New Castle State Hospital, Ind.) Relation of acuteness of organic brain dysfunction to trial making test performances. *Percept. mot. Skills*, 1962, 15(2), 399-403.—The control group was differentiated from the brain-damaged groups on each part of the Trials Test. Among the brain-damaged groups, those with static lesions generally performed at levels superior to those of the acute lesion group. Relationships between Trails scores and Wechsler test

scores for the different groups were discussed. The condition of brain lesions at the time of psychological testing was concluded to be an important variable in studies of psychological deficits among brain-damaged Ss.—*W. H. Guertin.*

8143. Haynes, Jack R., & Sells, S. B. (Texas Christian U.) **Assessment of organic brain damage by psychological tests.** *Psychol. Bull.*, 1963, 60(3), 316-325.—Approaches to the diagnosis of organic brain damage reflect diverse concepts of the nature of brain damage and of its behavioral effects. The principal approaches incorporated in published tests and research include diagnostic signs, single variable tests, scatter patterns, and qualitative techniques. A few investigators have used multiple variable batteries. Problems of selection of Ss and neurophysiological considerations are emphasized in the review. Although most tests were designed on the assumption of a unitary concept of organicity, the evidence supports the conclusion that brain damage is a multi-dimensional concept. A sequential multivariate measurement approach, including accurate neurological data, is required. Factors other than brain damage may influence the behavior of brain damaged persons. (75 ref.)—*Journal abstract.*

8144. Milligan, J. R. (VA Hosp., Long Beach) **Haptic hallucinations: Report of a case.** *Bull. Los Angeles Neurol. Soc.*, 1963, 28(1), 37-38.—The term "haptic hallucination" is used to describe the phenomenon of perception of a tactile sensation when there is no external object present. Nielsen (*Bull. Los Angeles Neurol. Soc.*, 1960, 25(4)) described 5 patients with haptic hallucinations, specifically, the feeling of a sudden, painless jolt or "thump" to the head. The hallucination may be the only manifestation or may be followed by a grand mal or psychomotor attack. The cases to date suggest that the seizures are secondary to temporal lobe pathology. The author presents a 6th case and reports that no other cases than Nielsen's have been published.—*I. N. Mensh.*

8145. Reed, Homer B. C., Jr., & Reitan, R. M. (Indiana U. Medical Cent.) **Intelligence test performance of brain damaged subjects with lateralized motor deficits.** *J. consult. Psychol.*, 1963, 27(2), 102-106.—The Wechsler-Bellevue Intelligence Test was administered to groups of brain damaged Ss having lateralized motor deficits, brain damaged Ss with no lateralized motor deficits, and control Ss having no brain damage. The results indicated that brain damaged Ss with right-sided motor deficits demonstrate different kinds of intellectual impairment than brain damaged Ss with left motor deficits and, additionally, that the intellectual impairment is a function of the lateralization of cerebral dysfunction rather than reflecting the motor handicap per se. The significance of the findings was briefly discussed.—*Journal abstract.*

8146. Scott, Thomas R., Bragg, Robert A., & Smarr, Roy G. (VA Hosp., Columbia, S. C.) **Brain damage diagnosis with the MMG.** *J. consult. Psychol.*, 1963, 27(1), 45-53.—A method for measuring the speed of the spiral aftereffect is described. Results of measurements on a group of 51 brain damaged and 37 control Ss are presented. Both binocular and interocular transfer conditions were used. It was found that brain damaged Ss varied

over a much greater range than did controls. Also, the brain damaged S's aftereffect varied more from time to time. Among controls, interocular transfer aftereffect was found to be as great, if not greater, than the binocular aftereffect. Among brain damaged Ss, the interocular transfer and the binocular aftereffect displayed a patterning which was significantly different from that of controls. Measurement of aftereffect rate by the method described (metamegraph) shows promise as an indicator of presence or absence of brain damage. (28 ref.)—*Journal abstract.*

8147. Winkler, W. Th. (Landeskrankenhaus, Gutersloh, Westfalen, Germany) **Die Beziehungen zwischen frühkindlicher Hirnschädigung und Neurosen im Kindes und Jugendalter.** [Relations between brain damage in early childhood and neuroses in childhood and adolescence.] *Z. Psychother. med. Psychol.*, 1962, 12(1), 1-10.—Children with brain damage are in need of more unwavering parental love than normal children. Puberty (when criminal deviations and neurotic symptoms are most apt to develop) represents the most critical period in the lives of such children. In mild cases, patients and understanding may bring about disappearance of psychic peculiarities. Differential diagnosis between psychic deficiencies of organic etiology and psychic reactive peculiarities is possible only to a certain degree.—*I. Neufeld.*

Cerebral Palsy

8148. Irwin, Orvis C., & Jensen, Paul J. (Wichita U.) **A test of sound discrimination for use with cerebral palsied children.** *Cerebral Palsy Rev.*, 1963, 24(2), 5-11.—The standardization of the 30-item test for children 6-16 years of age is described. Kuder-Richardson reliability was .87. The means of scores of children diagnosed medically as mild, moderate, and severe were alike. No statistically significant differences between the means for spastics and athetoids was found.—*T. E. Newland.*

8149. Lacey, Harvey M. (Pittsburgh Child Guidance Center, Pa.) **Pre-conditions for the psychological evaluation of young cerebral palsied children.** *Cerebral Palsy Rev.*, 1962, 23(6), 12-14.—The discussion deals with patient factors (personality, nature and degree of physical disabilities, attitudes toward the examination, and fatigue), the stimulus conditions (the stimulus value of the examiner, the matter of test items and instructions), and extrinsic factors (the physical environment for the testing, and the problem of the presence of the parent).—*T. E. Newland.*

8150. Linde, Thomas. (United Cerebral Palsy, Milwaukee, Wis.) **Accent on assets: Two problems in psychology and cerebral palsy: I. Individual personality.** *Cerebral Palsy Rev.*, 1962, 23(6), 3-4, 11.—Part I is concerned with problems of individual adjustment: frustration, guilt, inferiority, and idolization.—*T. E. Newland.*

8151. Linde, Thomas. (United Cerebral Palsy, Milwaukee, Wis.) **Accent on assets: Two problems in psychology and cerebral palsy: II. Social interaction.** *Cerebral Palsy Rev.*, 1962, 23(6), 5-6, 19.—Part II develops the point that, along with the cultivation of desirable insights and self-perceptions in cerebral palsied persons, "the public needs help in learning to be rationally discriminant in its responses

to the multitudinous stimuli presented by individuals with disability."—*T. E. Newland.*

8152. Sato, Chiyoko. (Tokyo, Japan) The change of voice in cerebral palsied boys. *Cerebral palsy Rev.*, 1962, 23(6), 7-11.—Observations made every 3 years over a period of 6-9 years are reported on 26 Japanese junior and senior high school children, of whom 14 were spastics and 7 were athetoids. None showed 1-octave lowering of the pitch range, although the majority underwent changes at the expected chronological ages. In the cases of those having original serious speech difficulties, observation of change was "almost impossible." Details on magnitude and nature of shift of pitch are presented.—*T. E. Newland.*

MENTAL RETARDATION

8153. American Association on Mental Deficiency. Symposium: Attention and activity level of the mentally retarded. *Train. Sch. Bull.*, 1963, 59(4), 132-160.—The following papers were presented at the 86th Annual Meeting of the association on May 4, 1962: "Introductory Remarks" (Anne M. Ritter), "Theory in Research in Activity Level" (R. L. Cromwell), "Studies on Distractibility: A Progress Report" (J. Schulman, Frances M. Thorne, J. C. Caspar), "Over-Attention to Moving Stimuli as a Factor in the Distractibility of Retarded and Brain Injured Children" (G. H. Zuk), and "Discussion" (M. Garrison).—*V. S. Sexton.*

8154. Arnold, Carol B. (Colorado State Home Training School, Wheat Ridge, Colo.) Feeding suggestions for the severely retarded child in the institution. *Amer. J. occup. Ther.*, 1962, 16(6), 290-292.—A description of some of the equipment and techniques used for the feeding training of severely handicapped children in a state institution for the mentally retarded.—*M. A. Seidenfeld.*

8155. Canella, B. Indagini sulla recuperabilità sociale di un gruppo di fanciulli anormali psichici, intellettivi e caratteriali. [Researches on social recovery in a group of psychologically, intellectually, and characterologically abnormal children.] *Difesa soc.*, 1961, 40(4), 98-120.—Follow-up of 200 mental defectives over 18 years of age who had been diagnosed at school age. Probability of recovery is proportional to the intellectual level ascertained in early age.—*L. L'Abate.*

8156. deHaan, Henry J., & Wischner, George J. (U. Pittsburgh) Three-dimensional objects versus projected color photographs of objects as stimuli in learning-set formation by retarded children. *J. comp. physiol. Psychol.*, 1963, 56(2), 440-444.—2 experimental situations, emphasizing differences in stimulus characteristics, yielded no significant differences in learning-set formation by 70 institutionalized retarded children. A Wisconsin apparatus employed laboratory-fabricated objects for $\frac{1}{2}$ the Ss; for the remaining $\frac{1}{2}$, colored slides of these stereometric objects were projected in a specially developed automatic apparatus. The highly comparable performance of the groups is surprising in view of other differences between experimental conditions, particularly those related to degree of spatial contiguity between cue, response, and reinforcement, and availabil-

ity of tactile and kinesthetic cues. (17 ref.)—*Journal abstract.*

8157. Horowitz, Frances Degin. (U. Kansas) Partial and continuous reinforcement of vocal responses using candy, vocal, and smiling reinforcers among retardates. Part I. *J. speech hear. Disord. monogr. Suppl.*, 1963, No. 10, 55-69.—60 mentally retarded children ranging in IQ from 36 to 78 and having Parsons Language Sample scores from 53.6 to 70.0 were randomly assigned to treatment and reinforcement groups. 5 reinforcement stimuli—candy, vocal, smiling, candy-vocal and vocal-smiling—were studied under conditions of partial, 50%, and continuous 100% reinforcement. The combination of candy-vocal reinforcers tended to be most effective.—*M. F. Palmer.*

8158. Irwin, Orvis C. (U. Wichita) The applicability of an articulation test with mentally retarded children. *Cerebral Palsy Rev.*, 1963, 24(1), 3-8.—The author's test was administered to 162 mentally retarded noncerebral-palsied children (CA 3-0 to 15-8; MA 2-7 to 12-8; IQ 30-80—test unspecified). It is concluded that the test "is not as precise a measuring instrument with (these) mentally retarded children as with (former) cerebral palsy subjects. Although this test may be used for an evaluation of the articulation of mentally retarded children (better for vowels than for consonants), the results obtained from these subjects should be interpreted with caution."—*T. E. Newland.*

8159. Mecham, Merlin J., & Jex, J. Lorin. (U. Utah) Training mentally retarded children in oral communication. *ASHA*, 1962, 4(12), 441-443.—The development of speech and language in the normal is paralleled in the mentally retarded. Clinical work in speaking and listening as specific skills does not necessarily effect improvement in language development. The general objectives for training mentally retarded children in communication are the creation of a stimulating and motivating psychological climate, the use of concrete experiences, the presentation of verbal symbols as labels for experiential concepts as these are being developed, and the use of standardized developmental schedules in verbal language as a tool in the measurement of readiness and improvement.—*M. F. Palmer.*

8160. Olshansky, S., & Kettell, Marjorie. (Childrens Developmental Clinic, Cambridge, Mass.) Attitudes of some internes and first-year residents toward the institutionalization of mentally retarded children. *Train. Sch. Bull.*, 1963, 59(4), 116-120.—40 internes and 1st-year residents in 4 private hospitals in the greater Boston area were interviewed. They had limited exposure to and interest in mental retardation. The majority favored keeping the pre-school mentally retarded child at home. Almost all opposed the separation of mother and retarded baby at time of delivery. Most considered themselves, rather than the parents, as the decision makers concerning institutionalization.—*V. S. Sexton.*

8161. Penney, R. K., & McCann, B. (U. Texas) Application of originality training to the mentally retarded. *Psychol. Rep.*, 1962, 11(2), 347-351.—18 retardates were required to free associate to 2 lists of words (training list and test list), then were

given the Unusual Uses Test. The experimental group was presented 3 times with the training list under instructions to respond with a different word on each trial (originality training). The control group, matched for MA and sex, received only 1 presentation of the training list. "The experimental group emitted more unusual uses and more original uses than did the control group on the Unusual Uses Test. There was no difference between groups on the test list."—*B. J. House.*

8162. Siegel, Gerald M. (U. Minnesota) **Adult verbal behavior in "play therapy" sessions with retarded children. Part I.** *J. speech hear. Disord. monogr. Suppl.*, 1963, No. 10, 34-38.—8 children from the Parsons, Kansas, State Hospital and Training Center, selected on the basis of being in the lower 52% of the Parsons language sample and the upper 25% with 6 or fewer errors on the Templin-Darley Screening Test of Articulation, were used to study the adult verbal behavior of 2 normal adults. Mean language response did not change significantly for the 2 groups, although the results were considerably lower than the mean language values reported for 8-year-olds by Templin.—*M. F. Palmer.*

8163. Siegel, Gerald M., & Harkins, Jerome P. (U. Minnesota) **Verbal behavior of adults in two conditions with institutionalized retarded children. Part II.** *J. speech hear. Disord. monogr. Suppl.*, 1963, No. 10, 39-46.—21 junior college students each met one high level child and one low level child as measured on the Parsons Language Sample in a structured and an unstructured situation. 5 measures of verbal behavior of the adults were extracted. Analysis showed that with high level children adults used more responses, Mean Language Responses, and higher Type-Token Ratios.—*M. F. Palmer.*

8164. Siegel, Gerald M. (U. Minnesota) **Verbal behavior of retarded children assembled with pre-instructed adults. Part III.** *J. speech hear. Disord. monogr. Suppl.*, 1963, No. 10, 47-53.—10 adult normal females split into 2 groups. 5 of them, trained in a relatively permissive approach and 5 simply required to interview children, tested 40 girls ranging in age from 13 yr. 9 mo. to 17 yr. with 20 drawn from the upper 25% of their age range and the remaining from the 25th and 50th percentiles on the Parsons Language Sample. Each adult met individually 4 children, 2 high and 2 low verbal level, for 15 min. sessions. Only on the number of adult questions and the Type-Token Ratio did adults clinically trained differ from those who were not so trained.—*M. F. Palmer.*

8165. Silverstein, A. B., & Mohan, Philip J. (Pacific State Hosp.) **Conceptual area analysis of the test performance of mentally retarded adults.** *J. abnorm. soc. Psychol.*, 1963, 66(3), 255-260.—The Object Sorting Test from the Goldstein-Scheerer battery and the Similarities subtest of the WISC were administered to 50 mentally retarded adults and scored by means of McGaughan and Moran's conceptual area analysis. Age, IQ, and length of hospitalization were significantly related to a number of the conceptual area measures, whereas sex and diagnosis were generally unrelated to these measures. There was some evidence of consistency in performance on the 2 conceptual tests, but the 2 parts of the Object Sorting Test seemed not to be measuring the

same thing. It was suggested that for retardates, at least, the basic dimensions of conceptual area analysis are not independent. The abnormal concreteness of the retarded appears to differ from that of both schizophrenics and brain damaged individuals. (15 ref.)—*Journal abstract.*

8166. Spradlin, Joseph E. (U. Kansas) **Assessment of speech and language of retarded children: The Parsons language sample.** *J. speech hear. Disord. monogr. Suppl.*, 1963, No. 10, 8-31.—275 mentally retarded cases were examined on a language test based on Skinner's behavioral descriptions split into tact, echoic, intraverbal, comprehension, echoic gesture, intraverbal gesture, and mand tests. Vocal and nonvocal subsections seemed to be sampling relatively independent behavior, and the scores seemed to be useful in predicting at least a limited range of nontest language behavior.—*M. F. Palmer.*

8167. Zigler, Edward, & Williams, Joanne. (Yale U.) **Institutionalization and the effectiveness of social reinforcement: A three-year follow-up study.** *J. abnorm. soc. Psychol.*, 1963, 66(3), 197-205.—49 familial retarded children who had been tested on a simple 2-part satiation game 3 years earlier were retested on the same game. The children were divided into high and low preinstitutional social deprivation groups, and 2 reinforcement conditions were employed. On the original testing a positive relationship was found between social deprivation experienced and the effectiveness of social reinforcement ($p < .05$), with no significant reinforcement effects being found. On retesting, significant reinforcement condition effects were found ($p < .05$), but no significant preinstitutional deprivation effects. An examination of the differences in the children's performance in the 2 testings revealed a significantly greater enhancement in the effectiveness of social reinforcement for the low than for the high socially deprived Ss ($p < .01$). (17 ref.)—*Journal abstract.*

BEHAVIOR PROBLEMS

8168. Kohen-Raz, Reuven. (Jerusalem, Israel 3 Schillerstr.) **Versuch einer klinischen Typologie gestörter Jugendlicher und die Möglichkeit ihrer Koedukation.** [Attempt of a clinical typology of disturbed youngsters and the possibilities of their coeducation.] *Z. exp. angew. Psychol.*, 1962, 9(4), 594-624.—Descriptive types of disturbances and their manifestations in boys and girls are given. The prognosis for successful coeducation is evaluated and constructive suggestions toward a solution of the educational problems are presented.—*W. J. Koppitz.*

8169. Llorens, Lela A., & Rubin, Eli Z. (La-fayette Clinic, Detroit, Mich.) **A directed activity program for disturbed children.** *Amer. J. occup. Ther.*, 1962, 16(6), 287-289.—A graded activity program of occupational therapy for disturbed children is described. This program is based on the findings of an earlier research study relative to the needs of this disability group. The program consists essentially of a structured activity program using a directive teaching approach designed to bring about significant changes in skills leading to improved performance and make a definite contribution to the therapeutic plan for emotionally disturbed children.—*M. A. Seidenfeld.*

Alcoholism

Sex Deviation

Drug Addiction

8170. Joint Committee of the American Bar Association & the American Medical Association on Narcotic Drugs. *Drug addiction: Crime or disease?* Bloomington, Ind.: Indiana Univ. Press, 1961. xiv, 173 p. \$2.95.—The joint committee was formed in 1956 "to determine whether the two Associations can or should agree upon common principles or a common course of action" with respect to the problem of narcotic drugs. The reports express dissatisfaction with existing medical and legal approaches to the problem of drug addiction. In an appendix the psychological, social, medical, and legal aspects of the problem are surveyed. Another appendix summarizes narcotic drug laws, regulations, and policies in Great Britain and other European countries. Among the final recommendations, the joint committee urges clarification of the role of medicine and public health in treatment programs. Needed areas of research are indicated, including the establishment of an experimental facility to explore the possibilities of outpatient treatment of drug addicts.—*S. Brotman.*

8171. Savitt, Robert A. (State U. New York) *Psychoanalytic studies on addiction: Ego structure in narcotic addiction.* *Psychoanal. Quart.*, 1963, 32(1), 43-57.—The personality structure of narcotic addicts is discussed. "Object relationships are on an archaic level and the addict is unable to experience love and gratification through the usual channels of incorporation and introjection. Tension and depression become unbearable and in the process of regression the ego is overwhelmed by the threat of disintegration. Like the neonate, the addict has no ability to bind tension. Because of the inability to tolerate delay he seeks an emergency measure which bypasses the oral route of incorporation in favor of a more primitive one, the intravenous channel. . . . The vicissitudes of early ego development and later ego maturation which facilitate fixation and encourage regression appear to play a dominant role in predisposing an individual to the development of the crippling, morbid craving."—*J. Z. Elias.*

Suicide & Homicide

8172. Breed, Warren. (Tulane U.) *Occupational mobility and suicide among white males.* *Amer. sociol. Rev.*, 1963, 28(2), 179-188.—"Interviews concerning 103 white male suicides between the ages of 20 and 60 in New Orleans disclosed considerable difficulty with a crucial male role—work—as seen in downward mobility (both intergenerational and worklife), reduced income and unemployment. These indices of low achievement are analyzed for several age and class groups. The drift hypothesis of pathology is examined and a modification offered. A structural-interactional theory of suicide is proposed."—*L. Berkowitz.*

8173. Pauleikhoff, B. *Unfreiheit, Schuld, Suicid bei seelisch Kranken.* [Loss of freedom, guilt, and suicide in the mentally ill.] *Confin. psychiat., Basel*, 1962, 5(2-3), 161-176.—A frequent assumption is that a person commits suicide because of guilt. But a study of clinical evidence shows the guilt feelings to

be more usually an expression of a pathological loss of freedom from which the suicide attempts to escape by his act. Genuine, in contrast to delusional, guilt, seeks to atone or make restitution rather than commit suicide.—*E. W. Eng.*

CRIME & DELINQUENCY

8174. Bacon, Margaret K., Child, Irvin L., & Barry, Herbert. (Yale U.) *A cross-cultural study of correlates of crime.* *J. abnorm. soc. Psychol.*, 1963, 66(4), 291-300.—In a sample of 48 nonliterate societies, frequency of theft and personal crime were separately correlated with a number of variables which were suspected to be casual factors in the development of crime. Lack or limitation of opportunity for the young boy to form an identification with his father was associated with both types of crime. A high degree of socialization anxiety in childhood and a high degree of status differentiation in adulthood were significantly associated with theft only; a general adult attitude of suspicion and distrust was more decidedly associated with personal crime. (17 ref.)—*Journal abstract.*

8175. Badami, H. D. *A psychological study of some factors of juvenile delinquency.* *Educ. Psychol. Rev., Baroda*, 1962, 2(2), 101-106.—2 matched groups of delinquent and nondelinquent school children—matched on age, intelligence, and economic status—were studied. Differences pertaining to the child, parents and siblings, and family were enumerated. Illegitimacy and broken homes were among the important factors in delinquency.—*U. Pareek.*

8176. Ball, John C. *Social deviancy and adolescent personality.* Lexington, Ky.: Univer. Kentucky Press, 1962. 119 p. \$3.00.—A cross-sectional multigroup comparison of environmental and personality factors with various types of deviant behavior among adolescents. Delinquents are compared with nondelinquents, white with negro students, high with low socioeconomic status, broken with unbroken homes, high achievers with low achievers, those rated by teachers as maladjusted with those not so rated. MMPI profiles were divided according to behavioral and environmental conditions which deviate from urban middle-class white norms. Ss were 9th grade public school students and incarcerated delinquents. The MMPI was shown to be a valid personality measure in a nonclinical adolescent population. Personality maladjustment was shown to be associated with delinquency. Deviant personality tendencies were more common among students from broken homes. Nondelinquent boys from broken homes were characterized by depressive reactions.—*G. Deskin.*

8177. Hoeck-Gradenwitz, Erik. *Die Behandlung der Psychopathen in den Strafanstalten.* [Treatment of psychopaths in penal institutions.] *Psychol. Rdsch.*, 1963, 14(2), 93-114.—Denmark's penal institutions maintain an extensive program in psychotherapy for the rehabilitation of psychopathic criminals. Depending upon diagnosis, anamnestic analysis and group therapy, milieu therapy, in some cases even castration, are used in order to help a person find a way of staying out of trouble. Therapeutic care extends beyond the prison term. Adjustment is regularly supervised after discharge during a probation period. After that, a former convict has the possibil-

ity to return for advice whenever he feels that he cannot cope with his problems.—*W. J. Koppitz.*

8178. Johnston, Norman; Savitz, Leonard, & Wolfgang, Marvin E. (Eds.) (U. Pennsylvania) *The sociology of punishment and correction.* New York: Wiley, 1962. xi, 349 p. 6.50 (cloth), \$4.25 (paper).—A selection of 50 readings from the literature. The material is grouped in the following sections: "The Administration of Justice," "The Prison Community," "Treatment," "Prediction," and "Prevention." Brief introductory remarks precede each section.—*L. S. Kogan.*

8179. Knapp, Robert R. (USN Personnel Research Activity, San Diego, Calif.) *Personality correlates of delinquency rate in a Navy sample.* *J. appl. Psychol.*, 1963, 47(1), 68-71.—A study to determine whether personality scales measuring social maturity and conformity were related to delinquency rate in a group of 92 Navy brig confinees. The Socialization scale of the California Psychological Inventory and the Conformity scale of the Survey of Interpersonal Values each correlated significantly with a delinquency criterion obtained by correlating the scales against number of offenses committed and partialing out length of service. While the validities obtained for both the Socialization and Conformity scales were in the expected direction, the difference between means for the present delinquent and other nondelinquent groups on the Conformity scale is not in accord with the validity obtained. Differences in mean scores between the present delinquent sample and those presented for high school samples were in the expected direction for the Socialization scale.—*Journal abstract.*

8180. McCord, Joan; McCord, William, & Alan. (Stanford U.) *Family interaction as antecedent to the direction of male aggressiveness.* *J. abnorm. soc. Psychol.*, 1963, 66(3), 239-242.—In a longitudinal study of antisocial aggressiveness in males, reports on direct observation of behavior in childhood and early adolescence were used to rate general level of aggressiveness. Criminal records were used to ascertain antisocial behavior during adolescence and adulthood. To distinguish between conditions which contribute to socialized aggressiveness and those which direct aggression into antisocial channels, the family backgrounds of men who had been equally aggressive in childhood were compared. The results suggest that extreme neglect and punitiveness, coupled with a deviant-aggressive paternal model produces antisocial aggressiveness. In contrast (thought not contradiction), moderate neglect, moderate punitiveness, and ineffective controls produce socialized aggressiveness.—*Journal abstract.*

8181. Panton, James H. *Use of the MMPI as an index to successful parole.* *J. Crim. Law Criminol. police Sci.*, 1962, 53(4), 484-488.—"The MMPI profiles of a group of parole violators were compared with a sample of parole non-violators and with a sample of 2,198 prison admissions. All three samples were drawn from the research files of the North Carolina Prison Reception Center. The non-violators were found to present significantly less pathological profiles than the violators or admissions. . . . An item analysis was employed in the identification of 26 MMPI items which successfully distinguished the violators from the non-violators. These

items were designated the PaV scale. . . . The PaV scale was found to identify successfully 80.5% of both the violator and non-violator groups. Validation was determined on a recent group of violators of which 78.6% were successfully identified by the PaV scale."—*C. T. Morgan.*

8182. Perry, Thomas L. (California Inst. Technology, Pasadena) *N-methylmetanephine: Excretion by juvenile psychotics.* *Science*, 1963, 139 (Whole No. 3555), 587-589.—3 out of 18 psychotic children excreted N-methylmetanephine, a metabolite of N-methylepinephrine. It is not clear whether this tertiary amine plays a part in causing some forms of psychosis or is merely a secondary result of mental dysfunction. Urinary excretion of bufotenin and of 3,4-dimethoxyphenylethylamine, each of which has been reported elevated in some adult schizophrenics, was not unusual in these children.—*Journal abstract.*

8183. Reifen, David. (Tel Aviv, Israel) *Bet mishpat lanoar.* [Court for adolescents and its way of treating young offenders.] Jerusalem, Israel: Ministry Education Culture & Szold Institute Child Youth Welfare, 1962. 47 p.—This is intended for youth leaders. After an historical sketch, the psychological and educational means of juvenile courts are explained, as well as the significance of laws and court procedures. Methods of treatment are broadly described. Cases taken from life in Israel are given. "In most of them improvement is possible," provided that the young offenders's life circumstances and his personality are considered.—*H. Ormian.*

8184. Shelley, Ernest L. V., & Toch, Hans H. *The perception of violence as an indicator of adjustment in institutionalized offenders.* *J. Crim. Law Criminol. police Sci.*, 1962, 53(4), 463-469.—2 different pictures were measured to the left eye and right eye by means of a stereoscope to a group of prisoners. One picture was a scene of violence, the other neutral; otherwise the 2 were structurally matched. The 11 Ss, seeing the highest percentage of violent pictures, were matched with a control group of prisoners. The 2 groups were more sharply differentiated by Rorschach scores than by other test measures. 7 out of 11 in the test group were committed for some act of antisocial behavior.—*C. T. Morgan.*

8185. Strodtbeck, F. L., Short, J. F., & Kolegar, Ellen. (U. Chicago) *The analysis of self-descriptions by members of delinquent gangs.* *Sociol. Quart.*, 1962, 3(4), 331-356.—A 14-item paired-comparison adjective list was administered to 23 members of a Negro delinquent group and to 23 nongang members who were matched on race, age, and location of residence. Among the methodological problems considered were the consistency of the paired comparisons, the social desirability of the adjectives, alternative means of determining the similarity between self-descriptions, and the correspondence between self-reports concerning delinquent behavior and O reports. Among the major substantive findings were the following: 2 patterns of self-descriptions emerged from the boys—the "cool aggressive" pattern composed of "troublesome, cool, tough, and mean" and the "scout" pattern composed of "loyal, clean, helpful," etc. There were significantly more "cool aggressives" in the gang than in the nongang population. Reciprocated sociometric choices tended

to occur more frequently between boys with similar self-descriptions, but there was a general trend for the "cool aggressives" to be overchosen by all types of gang members. On the basis of self-reports of delinquent activities, the "cool aggressives" gambled more, made money illegally, and engaged in more heterosexual activity than the "scouts." The same trend was evident in the O's report but was not significant.—*K. E. Davis.*

8186. Walters, Richard H., Callagan, John E., & Newman, Albert F. (U. Toronto, Canada) **Effect of solitary confinement on prisoners.** *Amer. J. Psychiat.*, 1963, 119(8), 771-773.—40 long-term prisoners at a federal penitentiary volunteered to serve as Ss in a study of the effects of solitary confinement. 20 men were placed in isolation cells for 4 days and 20 served as controls. Results showed some increase in anxiety but no mental or psychomotor deterioration or increased susceptibility to social influence. These results may be, in part, a function of the personality characteristics and history of prisoners or of such prison conditions as lack of privacy.—*N. H. Pronko.*

PSYCHOSES

8187. Fish, Frank. (U. Edinburgh) **The functional psychoses in the light of Hebb's theory.** *Confin. psychiat., Basel*, 1962, 5(2-3), 130-150.—"The clinical features of manic-depressive insanity and schizophrenia" derive from "disordered activity of the thalamic reticular system and the mesencephalic reticular systems respectively. . . . In depression the thalamic reticular system is under-active, leading to a lack of variation in the progress of the phase sequences and the dominance of well-worn phase sequences representing basic anxieties. . . . Mania is the result of excessive activity of the thalamic reticular system, since this brings about an increased variation in the phase sequences. . . . In schizophrenia the initial disorder is undue activity of the caudal part of the reticular system which at first produces a paranoid attitude because sensations play an undue part in the central process."—*E. W. Eng.*

8188. Hamilton, Vernon. (Springfield Hosp., London, England) **Size constancy and cue responsiveness in psychosis.** *Brit. J. Psychol.*, 1963, 54(1), 25-39.—An experiment is reported designed to re-assess size constancy behavior and some of its correlates in psychotic and nonpsychotic Ss. The predictive basis of reduced size constancy for schizophrenic and nonschizophrenic psychotic patients was found in the clinical evidence characterizing these conditions and in Piaget's genetic theories of cognitive development. It was postulated that there would be no significant difference in size constancy between different psychotic groups or between different nonpsychotic groups, but that the psychotic groups would show significantly reduced size constancy compared with the nonpsychotic sample. It was further postulated that low size constancy would be positively related to reduced cue responsiveness operationally defined in several different ways. Size constancy and cue responsiveness in relation to familiar and non-familiar objects are assessed. The results are taken to provide a considerable degree of support for the hypotheses, and are explained in terms of peripheral as well as central mechanisms. The findings do not support previous evidence suggesting a causal rela-

tionship between low size constancy and underestimation of distance. (28 ref.)—*Journal abstract.*

Schizophrenia

8189. Brzezicki, E. **Über Schizophrenien, die zu einem sozialen Aufstieg führen.** [Schizophrenias that result in social rise.] *Confin. psychiat., Basel*, 1962, 5(2-3), 177-187.—Periods of schizophrenia have marked turning points toward heightened creativity in the lives of poets, writers, and scientists in particular. Comte, de Nerval, and a famous Polish philosopher are discussed in detail as illustrations from the writer's files that contain numerous examples of persons still living and less well-known.—*E. W. Eng.*

8190. D'Alessio, Gerald R., & Spence, Janet Taylor. (Lakeland Guidance Cent., Pompton Lakes, N. J.) **Schizophrenic deficit and its relation to social motivation.** *J. abnorm. soc. Psychol.*, 1963, 66(4), 390-393.—A study investigating the effects of praise and encouragement on the performance of schizophrenics was carried out with 48 normal and 48 hospitalized schizophrenics, the latter being drawn equally from open and closed wards. All Ss performed a simple motor task, those in the experimental groups receiving verbal praise and encouragement from E after each trial and those in the control groups no evaluative comments. The results indicated that all experimental groups performed better than their controls but that the amount of improvement did not differ among the diagnostic groups. In absolute performance level, normals were significantly superior to the schizophrenics but the 2 schizophrenics groups did not differ significantly from each other.—*Journal abstract.*

8191. Higgins, Jerry, & Mednick, Sarnoff A. (U. Michigan) **Reminiscence and stage of illness in schizophrenia.** *J. abnorm. soc. Psychol.*, 1963, 66(4), 314-317.—When given a repetitive inverse alphabet printing task to perform for 5 min. of massed practice, Early Stage schizophrenics (N=16) displayed a greater degree of improvement in performance (reminiscence) after a 2-min. rest than did Advanced Stage schizophrenics (N=16). Early Stage and Advanced Stage schizophrenia were defined in terms of a theory of schizophrenia which postulates differential levels of arousal as characteristic of the stages of the disorder.—*Journal abstract.*

8192. Lebow, Kenneth E., & Epstein, Seymour. (U. Massachusetts) **Thematic and cognitive responses of good premorbid schizophrenics to cues of nurturance and rejection.** *J. consult. Psychol.*, 1963, 27(1), 24-33.—21 good premorbid schizophrenics and 21 matched controls were tested with pictures of mother, father, and peer figures represented in nurturant, ambiguous, and rejecting interaction with a boy-hero. The schizophrenics were found to have elevated reaction times to peer pictures following mother pictures (.01 level), obtained relatively low scores of p Nurturance (.05 level), produced flat gradients of p Nurturance as a function of cues varying from rejection to nurturance (.01 level), described mother figures as particularly rejecting (.05 level) and tended (.01 level) to produce their poorest responses to nurturant cues and their best responses to ambiguous scenes. It was suggested that good premorbid deny emotion and prejudge others as reject-

ing as a defense against emotional involvement. Rather than a specific "censure-cue deficit," schizophrenics exhibit deficit for cues of emotional involvement, in general.—*Journal abstract.*

8193. Moore, Robert A., & Selzer, Melvin L. **Male homosexuality, paranoia, and the schizophrenias.** *Amer. J. Psychiat.*, 1963, 119(8), 743-747.—128 paranoid schizophrenics and a control group of 77 nonparanoid schizophrenics were compared in an attempt to determine the possible role of homosexuality in the etiology of paranoia. The results showed that, to a statistically significant degree, the "paranoids showed greater incidence of past overt homosexual acts, preoccupation during therapy with homosexuality, and were judged latently homosexual more often by psychiatrists and testing psychologists." However, since evidences of homosexuality were also found in nonparanoids, other factors must be found to explain the essential paranoid process.—*N. H. Pronko.*

8194. Nelson, S., & Caldwell, W. E. (George Washington U.) **Perception of affective stimuli by normal and schizophrenic subjects in a depth perception task.** *J. gen. Psychol.*, 1962, 67(2), 323-335.—The Howard-Dolman depth perception apparatus was used. Stimulus drawings of a man, woman, dog, and circle were used; a movable post measured depth-perception accuracy. 22 schizophrenic and 22 "normal" Ss were employed in the study. Distance estimates were obtained by measuring the distance of each stimulus from the S in terms of a fixed standard. 2 main hypotheses were set forth. (a) Schizophrenics are able to perceive depth relationships accurately and maintain their performance in a perceptual task where threat is minimal. (b) Schizophrenics and "normals" differ in their arrangement of stimuli in a depth perception task, and this difference is in accordance with each groups relatedness to the symbolic values of the stimuli. It was found that there was no difference between schizophrenics and "normals" in accuracy of depth perception, although differences did exist in stimulus placement between the 2 groups. The variability of performance on the part of the schizophrenics suggests many possible hypotheses pertaining to the dynamics and nature of their phenomenological fields.—*Author abstract.*

8195. Norman, Russell P. (Queens Coll., Charlotte, N. C.) **Level of aspiration and social desirability in chronic schizophrenics.** *J. consult. Psychol.*, 1963, 27(1), 40-44.—The relationship between response to social desirability (SD) and level of aspiration behavior (LA) was studied in a chronic schizophrenic population. 107 hospitalized schizophrenics were given a modified form of the Edwards SD scale and were rated as to mental health (MH) status. 4 experimental groups of 12 Ss each were formed representing the high and low extremes on each variable. All Ss were given 10 trials on a letter-digit substitution task and their LA was obtained after each trial. Results indicated that the performances of the high SD Ss were superior ($p < .05$), and discrepancy scores (LA minus performance) were significantly related to the MH variable ($p < .01$), with low MH groups having negative and high MH groups positive discrepancy scores. The use of MH in combination with SD was valuable in demonstrating the existence of several major behavioral varia-

tions in a group of chronic schizophrenics. (22 ref.)—*Journal abstract.*

8196. Pearl, David, & Berg, Paul S. D. (VA Hosp., Battle Creek, Mich.) **Time perception and conflict arousal in schizophrenia.** *J. abnorm. soc. Psychol.*, 1963, 66(4), 332-338.—The hypothesis that schizophrenics would exhibit greater distortion in estimation of duration time for stimuli relevant to their major conflicts than for other stimuli was investigated. 3 groups, each with 16 Ss who were homogeneous with respect to experiencing primary conflicts with either aggression, sex, or dependency, were formed. A factorial Latin square design was used in which Ss estimated stimuli durations following the tachistoscopic presentation at 4 exposure times of 4 pictorial stimuli, 1 of which represented their major conflict area. Results demonstrated that greatest distortions occurred for conflict pictures at the .001 level. Distortion elicitation of the aggression stimulus was greater than other stimuli at .001 for the combined schizophrenics, an effect not found with normal control Ss.—*Journal abstract.*

8197. Satz, P., & Baraff, A. S. (VA Hosp., Lexington, Ky.) **Changes in the relation between self-concepts and ideal concepts of psychotics consequent upon therapy.** *J. gen. Psychol.*, 1962, 67(2), 291-298.—This study was designed to test 2 major contentions of self-theory: (a) self-ideal sort discrepancies are characteristic of inadequate self-organization and poor psychological adjustment, and (b) that such discrepancies between self and ideal correlations are reduced as a result of client-centered therapy. This study investigated the above hypotheses with 16 nonchronic schizophrenic patients in a state hospital using group psychotherapy and intensive occupational therapy for an experimental period of 10 weeks. An additional attempt was made to consider the problem of defensive sortings with seriously disturbed patients. Results from hypothesis 1 lent further support to self-theory, while results from both tests of hypothesis 2 failed to support the predicted reductions in self-ideal discrepancies. Several alternative explanations were advanced.—*Author abstract.*

8198. Vandenberg, S. G. (U. Louisville) **La mesure de la deterioration de la compréhension sociale dans la schizophrénie.** [The measurement of deterioration of social understanding in schizophrenia.] *Rev. Psychol. appl.*, 1962, 12(3), 189-199.—"A new test of social understanding is described. The test requires forced-choice judgments between two verbal labels for each of 90 pictures of facial expressions, grouped into 9 categories. The performance of 37 schizophrenics differed significantly from the performance of 14 non-schizophrenic mental patients. Correlations with other tests indicate that verbal intelligence does not account for this finding nor did other tests of social understanding discriminate as well, although they correlated fairly highly with the new technique." (English summary)—*E. G. White.*

Affective Disorders

Physiological Correlates

8199. Fotherby, K., Ashcroft, G. W. Affleck, J. W., & Forrest, A. D. (Postgraduate Medical School, London, England) **Studies on sodium transfer and 5-hydroxyindoles in depressive illness.** *J. Neurol.*

Neurosurg. Psychiat., 1963, 26(1), 71-73.—The rate of transfer of isotope labelled sodium (^{24}Na) from blood to cerebrospinal fluid of 11 schizophrenics was compared with that of 11 depressive patients. Data on 5-hydroxyindoles in blood and cerebrospinal fluid of these patients are also presented. No significant differences were obtained. The transfer rate of labelled sodium of 4 severely depressed patients without paranoid symptoms was lower than that of the group of depressed patients. Exercise appeared to increase the transfer rate.—*M. L. Simmel.*

PSYCHONEUROSES

8200. Brown, A. C., & Fry, J. (Maudsley Hosp., London, England) **The Cornell Medical Index Health Questionnaire in the identification of neurotic patients in general practice.** *J. psychosom. Res.*, 1962, 6(3), 185-190.—The Cornell Medical Index was offered to a total of 215 patients in a general practice and returned completed by 202. Patients clinically diagnosed as "neurotic" gave a significantly higher number of "yes" responses than other patients. The questionnaire separated neurotics from normals with "fair success."—*W. G. Shipman.*

8201. Leuner, Hanscarl. (v. Siebold Strasse 5, Göttingen, Germany) **Die Bedeutung des epochalen Entwicklungswandlens für die Disposition zu Neurosen und psychosomatischen Erkrankungen im Jugendalter.** [The significance of epochal-developmental changes for the disposition to neuroses and psychosomatic diseases in childhood.] *Z. Psychother. med. Psychol.*, 1962, 12(1), 11-20.—The concept of "acceleration," i.e., faster biological development during childhood and adolescence, includes earlier maturation, higher end-goals of maturity, and a change of the definite somatic structural constitution. The functioning of the psychophysical Gestalt-changes seem to predispose one to neurotic decompensation and to influence the structure of the neuroses, the defense mechanisms, and also the "choice" of the psychosomatic symptoms.—*I. Neufeld.*

PSYCHOSOMATICS

8202. Bursten, Ben. (Yale U. School Medicine) **Psychological state and sputum eosinophilia.** *Psychosom. Med.*, 1962, 24(6), 529-534.—The daily ward behavior of an asthmatic woman was observed. When in her usual self-sufficient state there were few or no eosinophiles in her sputum; when she reacted with marked dependence, helplessness, and lassitude, her sputum was laden with eosinophiles. Subsequent attacks were then predicted from sputum eosinophile count.—*W. G. Shipman.*

8203. Chertok, L., Mondzain, M. L., & Bonnaud, M. (Rothschild Hosp., Paris, France) **Vomiting and the wish to have a child.** *Psychosom. Med.*, 1963, 25(1), 13-18.—Vomiting and the attitude toward the child were studied in 100 primiparous women, of whom 68 suffered from vomiting. Verbally expressed attitudes were studied by semistructured interviews. The results show a positive relationship between vomiting and ambivalence of attitude on the part of the mother toward the child. (18 ref.)—*W. G. Shipman.*

8204. Cleveland, S. E., & Johnson, D. L. (VA Hosp., Houston, Tex.) **Personality patterns in**

young males with coronary disease. *Psychosom. Med.*, 1962, 24(6), 600-610.—25 young males recently hospitalized for myocardial infarction were administered the Rorschach, TAT, Thaler Doctor-Patient Relationship Test, Mayman Self Concept Test, and a structured interview. In contrast with matched pre-operation cases, their Rorschachs had more penetration, space, death, anxiety, and hostility responses. The TATs, in contrast to those of matched skin patients, had despondent, nostalgic, and religious themes. All but one reported being happy only when busy. The Thaler test showed a great need for faith in the doctor. The Mayman test showed them success-driven and concerned with how others see them. (16 ref.)—*W. G. Shipman.*

8205. Fishbein, Gerald M. (VA Hosp., Brooklyn, N. Y.) **Perceptual modes and asthmatic symptoms: An application of Witkin's hypothesis.** *J. consult. Psychol.*, 1963, 27(1), 54-58.—The problem of tying personality formulations described by Witkin to behavioral correlates was investigated. The Rod and Frame Test and Embedded Figures Test were administered to 60 chronic asthmatic children who had been removed from their home environment. Rate of symptom alleviation following environment change and mode of perception were identified. Results indicated that rate of alleviation and length of time in a therapeutic milieu varied independently from perceptual mode. Also, asthmatic Ss tended to be more field dependent than the nonasthmatic standard. The negative results supported the contention that mode of perception may be an artifact of the experimental situation. The trend toward greater perceptual dependency of the asthmatics does lend some credence to both the description of the asthma personality and to Witkin's hypotheses.—*Journal abstract.*

8206. Gottesfeld, H. (Kings County Psychiatric Hosp., Brooklyn) **Body and self cathexis of super-obese patients.** *J. psychosom. Res.*, 1962, 6(3), 177-183.—30 super-obese patients were compared with 30 matched neurotic patients on "body cathexis" and "self-cathexis" through a self-drawing and a self-rating personality trait list. While the super-obese patients show a more negative "body cathexis" on the self-drawing they do not show a more negative "body cathexis" on the trait list.—*W. G. Shipman.*

8207. Lefer, L., Pleasure, M. A., & Rosenthal, L. (Bronx VA Hosp., NYC) **A psychiatric approach to the denture patient.** *J. psychosom. Res.*, 1962, 6(3), 199-207.—Neither psychiatric interviews nor expert dentists' hunches could predict the patient's choice of denture styles.—*W. G. Shipman.*

8208. Moos, R. H., & Engel, B. T. (U. California School Medicine, San Francisco) **Psychophysiological reactions in hypertensive and arthritic patients.** *J. psychosom. Res.*, 1962, 6(4), 227-241.—12 arthritic and 12 hypertensive women were startled by a loud noise after free associating to "poignant" or nonpoignant stimuli, e.g., "I am physically active." During this conditioning and subsequent generalization procedure, heart and respiration rate, skin conductance, and muscle potentials were recorded. The arthritics had sustained muscle potential elevation and blood pressure adaptation, while for the hypertensives it was the reverse. "The

results strongly support a theory of response specificity."—*W. G. Shipman.*

8209. Purcell, K., & Metz, J. R. (Children's Asthma Research Inst., Denver, Colo.) **Distinctions between subgroups of asthmatic children: Some parent attitude variables related to age of onset of asthma.** *J. psychosom. Res.*, 1962, 6(4), 251-258.—34 rapidly remitting asthmatic children (RR) were compared with 25 matched steroid dependent (SD) ones for age of onset and parental child rearing attitudes. The Parental Attitude Research Instrument was used. RR mothers scored significantly higher on 2 scales (Breaking the Will and Excluding Outside Influence). RR fathers scored higher on one (Harsh Punishment). While the groups did not differ in mean age of onset, the late onset RRs had the most autocratic, restrictive mothers.—*W. G. Shipman.*

8210. Purcell, K., Turnbull, J. W., & Bernstein, L. (Children's Asthma Research Inst., Denver, Colo.) **Distinctions between subgroups of asthmatic children: Psychological test and behavior rating comparisons.** *J. psychosom. Res.*, 1962, 6(4), 283-291.—84 asthmatic children were classified into 29 rapid remitters, 29 intermediates, and 26 steroid dependents. All Ss were administered the Porteus Maze Test, Children's Manifest Anxiety scale, a mood adjective checklist, Rorschach, Aggression Pictures Test, and the IPAT Children's Personality Questionnaire. A personality rating form was done on each child by houseparents. None of the procedures yielded statistically significant differences between subgroups. (24 ref.)—*W. G. Shipman.*

8211. Smith, R. E. (Portland State Coll.) **A Minnesota Multiphasic Personality Inventory profile of allergy: II. Conscious conflict.** *Psychosom. Med.*, 1962, 24(6), 543-553.—Responses of 76 allergic and 76 nonallergic individuals to inventory items were analyzed by the chi-square technique. The 54 items found to discriminate between the 2 groups (p. 05) were analyzed. The allergics were more dissatisfied with their family life; tended to alienate their friends by disparaging them; and were cynical, irritable, and grouchy, with no compensation techniques for their feelings of inferiority and inadequacy. (28 ref.)—*W. G. Shipman.*

8212. Vario, E. **Gli aspetti psichici dell'ipertensione e la loro importanza sociale.** [Psychic aspects of hypertension and their social significance.] *Difesa soc.*, 1962, 41(4), 186-190.—An outline of data and hypotheses that underlie the importance of psychological factors in the origin of hypertension.—*L. L'Abate.*

8213. Weinstock, H. I. (Mt. Sinai Hosp., NYC) **Successful treatment of ulcerative colitis by psychoanalysts: A survey of 28 cases, with follow-up.** *J. psychosom. Res.*, 1962, 6(4), 243-249.—"This survey suggests that adequate treatment by psychoanalysts offers a greater possibility for long-term remissions, or perhaps cure, in the severe remitting type of ulcerative colitis than any other treatment, with the exception of surgery."—*W. G. Shipman.*

EPIDEMIOLOGY

8214. Arsenian, John. (Boston State Hosp., Mass.) **Situational factors contributing to mental**

illness in the elderly. *Geriatrics*, 1962, 17(10), 667-674.—Aspects of conflict, disappointment, and loss are reviewed, classified, and particularized in the light of a general theory of tension tolerance based on the assumption that every person has a threshold for disorganization.—*D. T. Herman.*

EDUCATIONAL PSYCHOLOGY

8215. Dreikurs, Rudolf. **Psikhologia bakita.** [Psychology in the classroom.] Tel Aviv, Israel: Otsar Hamore, Teachers' Union in Israel, 1962. 206 p.—A Hebrew translation of the 1957 original (see 31: 3602). From the introduction to the Hebrew version: "Many strata of population in Israel were transferred to a democratic atmosphere from lands with prevailing autocratic tradition. This transfer, as well as the policy of a welfare-state and an exaggerated awareness of liberty, create new psychological and educational situations which demand a new psychological approach to the child. In spite of differences between the United States and Israel, it is possible to apply in Israel experiences gathered in a different cultural milieu."—*H. Ormian.*

8216. Ingenkamp, Karlheinz. (Bahnhofstr. 48, Berlin, Germany) **Untersuchungen zum Einschulungstermin.** [Research on the question of when children should start schooling.] *Prax. Kinderpsychol. Kinderpsychiat.*, 1962, 11(7), 255-263.—When compulsory schooling should begin, school-readiness tests, evaluations by teachers, etc., are examined. Considerable statistical material is provided.—*E. Katz.*

8217. Maheshwari, S. E. (Vidyabhawan Teachers Coll., Udaipur, India) **Communication structures for better school administration.** *Shiksha*, 1962, 15(2), 105-111.—Studies in communication structure by Lewin, Baueles, Shaw, and others have been briefly reviewed. Facilitation of communication is considered largely dependent upon the pattern of school administrative structure. Some changes in the existing pattern of communication in schools have been suggested.—*U. Pareek.*

8218. Rosten, Leo. (Look Magazine, NYC) **The creative idea.** *Teachers Coll. Rec.*, 1963, 64(8), 637-646.—Creative ideas require acceptance by others.—*H. K. Moore.*

8219. Wall, W. D. (National Found. Educational Research) **Educational research today: Resistances, organization and costs.** *Brit. J. educ. Psychol.*, 1962, 32(3), 224-233.—Comments upon the preceding 3 articles in this symposium, describing some of the difficulties and possibilities in educational research.—*B. T. Jensen.*

8220. Wiseman, S. (U. Manchester, England) **The tools of research: Men and machines.** *Brit. J. educ. Psychol.*, 1962, 32(3), 218-223.—"The significant expansion of educational research is . . . impossible at present, mainly because of the shortage of trained research workers." Suggestions to remedy this situation are made.—*B. T. Jensen.*

SCHOOL LEARNING

8221. Allahabad Government Central Pedagogical Institute. **An investigation into the students' understanding of some common geographical**

terms. *Shiksha*, 1963, 15(3), 140-144.—A test was administered to 303 students of 8th-grade standard. The test revealed that very little importance is given in schools to the practical side of geography. Less importance should be given to books and more to understanding.—*U. Pareek*.

8222. Carroll, John B. (Harvard U.) A model of school learning. *Teachers Coll. Rec.*, 1963, 64(8), 723-733.—"Briefly, our model says that the learner will succeed in learning a given task to the extent that he spends the amount of time that he needs to learn the task.—*H. K. Moore*.

8223. Cline, Victor B., Richards, James M., Jr., & Needham, Walter E. (U. Utah) Creativity tests and achievement in high school science. *J. appl. Psychol.*, 1963, 47(3), 184-189.—This study investigated the relative validities of a battery of "creativity tests" and an IQ test for predicting several indices of achievement in high school science. Criteria included grade-point average in science courses, percentile rank on the STEP Science Achievement Test, teacher rating of overall scientific potential, number of high school science courses taken, and a measure of involvement with science. Results indicated that the creativity tests did have considerable predictive validity against each criterion for each sex and that the criterion variance accounted for by the creativity tests is to a substantial degree independent of IQ. Contrary to findings of other investigators, teachers did not discriminate against highly creative pupils in their ratings.—*Journal abstract*.

8224. Lambert, Wallace E., Gardner, R. C., Barik, H. C., & Tunstall, K. (McGill U.) Attitudinal and cognitive aspects of intensive study of a second language. *J. abnorm. soc. Psychol.*, 1963, 66(4), 358-368.—Students attending a 6-week French Summer School were examined for attitudes toward French people and culture, their orientations toward learning a 2nd language, and their feelings of anomie at the start and end of the course. Attention was also given to modification in the meanings of French and translated-equivalent English concepts. Students at 2 levels of skill in French were compared. Results supported the theory that learning a 2nd language efficiently depends on an appropriate pattern of attitudes toward the other cultural group and a particular orientation toward language study. Anomie increased for both groups of students during the course. Students utilized the semantic features of both their languages and permitted the 2 to interact. This linguistic interdependence correlates positively with achievement.—*Journal abstract*.

8225. Armian, Haim. Hareka hapsikhologi laavodat hamore bekhitot 7-8. [The psychological basis of the teacher's work in the 7th-8th grades.] In Moshe Avigal & Uri Blum (Eds.), *Madrikh Lekhitot 7-8*. [Guide to Grades 7-8.] Tel Aviv, Israel: Tarbut Vehinukh, 1962. Pp. 9-17.—Later childhood is described as a slow transition stage to the adolescent period, and explained on its biological and especially its sociological background. The following topics are discussed: childhood, adolescence and adulthood from the psychological standpoint; increasing criticism; changes of interest and imagination; emotional experiences and sexuality; social psychology of later childhood; transition from childhood to preadolescence; and the individual.—*H. Ormian*.

8226. Saksena, Shakuntala. (U. Lucknow, India) Effects of pre-school training upon educational attainment and personality trait of children. *Shiksha*, 1961, 14(2), 106-117.—2 matched groups of 48 Ss each, consisted, respectively, of children who had preprimary education and those who did not. 4 tests were administered in addition to interviews. The tests were for reading and comprehension, writing, arithmetic, and free drawing. The results showed that preschool education did not give much advantage to the children in reading, writing, and drawing. They were slightly better in comprehension and arithmetic and markedly superior in personality traits.—*U. Pareek*.

8227. Scott, Lloyd. (U. California, Berkeley) A teaching investigation of the introduction of various radices into kindergarten and first-grade arithmetic. *Calif. J. educ. Res.*, 1963, 14(1), 3-10.—After teaching 6 kindergarten and 8 1st-grade groups notations in terms of radices of 10, 8, 5, 3, and evaluating by observation the success of the children in such notation, the author concludes that "it is possible to acquaint [such] children with some fundamental concepts about the organization of their number system through use of various radices."—*T. E. Newland*.

8228. Siegel, Laurence; Siegel, Lila Corkland; Capretta, Patrick J., Jones, Reginald L., & Berkowitz, Howard. (Miami U., Oxford, O.) Students' thoughts during class: A criterion for educational research. *J. educ. Psychol.*, 1963, 54(1), 45-51.—Relevance of student thinking during class presentations is proposed as a relatively sensitive and uncontaminated criterion for educational research. Reports of thinking were evoked by modifying the stimulated recall technique using video tape and group administration. These reports were independently classified along a continuum of "thinking relevance" by pairs of judges, and the resultant classifications were transformed to numerical weights determined by a paired-comparisons analysis. Reliability and validity of the stimulated recall procedure was evaluated across lectures ($n=3$) and "critical stops" within lectures ($n=12$). The median interrater reliability for critical stops was .58. Validity against an independent measure of student learning was .61. The use of at least 3 trials reflecting variations in student mood and interest is recommended.—*Journal abstract*.

8229. Zintz, Miles V. (U. New Mexico) Indian children in public school classrooms in New Mexico: Next steps in research. *N. Mex. Soc. Stud. Educ. educ. res. Bull.*, 1963(Mar), 12-18.—A review of studies conducted in the southwest on the inadequacy of minority group children in English. Biculturalism is contrasted with the more limited problem of bilingualism, and specific problems of teaching English as a 2nd language are discussed. Areas of needed research are delineated. (16 ref.)—*J. G. Cooper*.

INSTRUCTIONAL AIDS

8230. Arnsdorf, Val E. (U. California, Berkeley) Time and space terms in basal social studies materials. *Calif. J. educ. Res.*, 1963, 14(1), 23-29.—Counts were made on samples of 25 texts appropriate to Grades 1 through 7. Results showed no systematic progression over grade levels, and a preponderance of indefinite terms over definite terms, particularly pro-

nounced among the space terms. Spache and Dale-Chall readability formulae results correlated (mdn.) about .15 with the number of terms used (range in r's: -.33 to .68). Implications regarding the relationship between these conditions and the children's ability to comprehend are indicated.—*T. E. Newland.*

8231. Fessant, John M. (Oregon State School Deaf, Salem) **Application of programmed learning for deaf children to industrial arts.** *Amer. Ann. Deaf*, 1963, 108(2), 241-244.—The development of the teaching machine and its demonstration use are described. Details of the machine are presented.—*T. E. Newland.*

8232. Jordan, James A. (Emory U.) **Socratic teaching?** *Harv. educ. Rev.*, 1963, 33(1), 96-104.—It is concluded that neither teaching machines or most other teaching methods use the Socratic method of teaching by inquiry. Such a concept should be dropped from the vocabulary of the teaching machine devotees.—*C. M. Franks.*

8233. Niebler, R. David. (Atlas Chemical Industries, Wilmington, Del.) **Programmed instruction saves time—and grows.** *Personnel J.*, 1963, 42(5), 239-243.—Basic terms used in programmed instruction are defined.—*M. B. Mitchell.*

8234. Pressey, Sidney L. (U. Arizona) **Teaching machine (and learning theory) crisis.** *J. appl. Psychol.*, 1963, 47(1), 1-6.—Current programers are declared to be racing down a blind alley, misled by theory based on comparative studies whereas the important features of human learning of meaningful matter are largely unique to man. For such learning, there are indications that write-ins are less valuable than objective items, reinforcement not the significant process, programming destructive of cognitive structure. Objective autoinstruction adjunct to texts and other instructional matter is clearly most practicable, probably most learning-producing. Evaluations should compare this approach, as well as orthodox programmed learning, with conventional teaching. Research related to such endeavors should aid emergence of theory clarifying the distinctive features of human learning.—*Journal abstract.*

8235. Ripple, R. E., & Klausmeier, H. J. **Adjunct program to accompany "Learning and Human Abilities: Educational Psychology."** New York: Harper & Row, 1962. 336 p. \$3.50 (paper).—Designed to accompany the textbook by Klausmeier (see 36: 1KA62K), this book has a table of contents identical to that of the textbook. For each chapter there is a set of alternate-choice and a set of completion items. The correct answer is beside each item, but the student conceals this until he has responded. Recognition items are relatively easy; completion items, more difficult. The program was presented in classes before publication.—*C. T. Morgan.*

8236. Wittrock, M. C. (U. California, Los Angeles) **Response mode in the programming of kinetic molecular theory concepts.** *J. educ. Psychol.*, 1963, 54(2), 89-93.—A kinetic molecular theory program was taught to 80 elementary school children. The experimental group learned the completion item program by responding aloud. The control group listened to the same program without overtly responding. An analysis of variance evidenced an interaction between MA and response mode ($p < .05$). A 1-year

retention test evidenced a nonsignificant loss from the learning test. It was concluded that under certain conditions the overt response is probably important in determining the results of learning.—*Journal abstract.*

ATTITUDES & ADJUSTMENT

8237. Appley, Mortimer H., & Moeller, George. (York U.) **Conforming behavior and personality variables in college women.** *J. abnorm. soc. Psychol.*, 1963, 66(3), 284-290.—Conforming behavior of 41 freshman women, as measured in an Asch situation, was compared with the scales of the Edwards Personal Preference Schedule, the Gough California Psychological Inventory, and the Gordon Personal Profile. In the sample studied, only the Edwards' Abasement scale was able to generate a small but significant relationship (+.33) with a kind of behavior which should have been predictable from some 12 to perhaps 27 of the 38 measures used. Excepting the 5 scales of Gough's 18, on the basis of questionable comparability of samples, a total of 33 measures was correlated with conforming behavior. Only 1 was found to have construct validity for this type of social conformity criterion when tested on a sample of college women. (17 ref.)—*Journal abstract.*

8238. Astin, Alexander W. (National Merit Scholarship Corp., Evanston, Ill.) **Differential college effects on the motivation of talented students to obtain the Ph.D.** *J. educ. Psychol.*, 1963, 54(1), 63-71.—An attempt was made to identify differential college effects on the student's motivation to seek the PhD degree. An input-output design for controlling differential student input was applied in a 4-year longitudinal study of 6544 high aptitude students. PhD aspiration appeared to be negatively affected by the size of the student body, the percentage of males in the student body, and the Conventional Orientation in the college environment. The Social Orientation also affected PhD aspiration significantly, but the relationship was very complex. Attending a coeducational liberal arts college appears to increase the student's motivation to seek the PhD, whereas PhD aspiration tends to be reduced as a function of attending one of the northeastern men's colleges.—*Journal abstract.*

8239. Callard, M. P., & Goodfellow, C. L. (U. Exeter, England) **Neuroticism and extraversion in schoolboys as measured by the Junior Maudsley Personality Inventory.** *Brit. J. educ. Psychol.*, 1962, 32(3), 241-250.—All the boys aged 11 to 14 yr. 11 mo. under the jurisdiction of Exeter Education Authority and 32 volunteers from Devon County area were tested with the Junior Maudsley Personality Inventory ($N = 3559$). IQs were obtained from the 11 plus examinations. The higher status groups had lower neuroticism averages than the lower status groups. There was a tendency for neuroticism and intelligence to be positively correlated in the highest status groups, but negatively correlated in lowest groups. Neuroticism and extraversion varied with age: younger age, higher neuroticism, and lower extraversion.—*B. T. Jensen.*

8240. Chazan, M. (University Coll. Swansea, England) **School phobia.** *Brit. J. educ. Psychol.*, 1962, 32(3), 209-217.—33 cases of school phobia are analyzed and several variables examined. Most of

the group showed marked dependency and emotional immaturity. Educational pressures often played a prominent role. Suggested treatments are discussed. (15 ref.)—*B. T. Jensen.*

8241. DeJung, John E., & Gardner, Eric F. (U. Kansas) **The accuracy of self-role perception: A developmental study.** *J. exp. Educ.*, 1962, 31(1), 27-41.—Accuracy of self-role perception, defined as difference between ratings received and one's own expectation of such ratings, was studied in 385 pupils, Grades 5-12. General level of estimating was found unrelated to general level of ratings received. Increased accuracy was generally related to higher grade level. Both sexes were found more accurate in perceiving ratings made of them by opposite sex than by same sex.—*E. B. Page.*

8242. Dix, Dorothy M. (U. Toronto School Nursing) **Role playing in nursing education in the psychiatric field.** *Group Psychother.*, 1962, 15(3), 231-235.—Role playing and the discussion following such sessions are valuable in allowing students to gain insights into their behavior.—*I. W. Kidorf.*

8243. Gold, Hilary A. (Brooklyn Coll.) **The classroom isolate: An additional dimension for consideration in the evaluation of a quality education program.** *J. exp. Educ.*, 1962, 31(1), 77-80.—For 30 classrooms, percentage of students "isolates" was found correlating significantly (.63) with F scores for "authoritarianism" in the teachers. Author argues a causal relationship.—*E. B. Page.*

8244. Keogh, Jack. (U. California, Los Angeles) **Extreme attitudes toward physical education.** *Res. Quart. Amer. Ass. Hlth. Phys. Educ. Rec.*, 1963, 34(1), 27-33.—The purpose of this study was to analyze stated attitude responses and selected descriptive information in relation to 2 groups of men and women who demonstrated extreme attitudes toward physical education. From an original group of 266 Ss, 69 men and women were selected whose scores on the Wear Physical Education Attitude Inventory were extremes of high or low. Additional data were obtained through a group interview questionnaire. There were no male-female differences within the extreme groups. The low groups offered some minimum support for the outcomes of physical education, but they vigorously questioned the relative value of physical education as a school program. There was no evidence to indicate that negative attitudes were related to non-participation.—*Journal abstract.*

8245. Rao, N. A. Hanumantha. **The application of the order of merit and paired comparison methods to study the preferential values of undergraduate students.** *J. Karnatak U.*, 1962, 6, 137-142.—239 college students rank ordered and compared in pairs 10 universal values. Students in general assigned the first 3 ranks to truth, honesty, and wisdom and the last 3 ranks to harmony, power, and wealth. No significant differences were found between sexes or between castes or between arts and science students. Boys appeared more consistent in assigning ranks.—*U. Pareek.*

8246. Shukla, Ramapati. (Banaras Hindu U., Varanasi, India) **Factors governing the choice of studies.** *Shiksha*, 1962, 14(4), 88-97.—Replies to a questionnaire from 900 graduates and undergraduates showed that in high schools the parents influence

selection of subjects, whereas at the masters' level "own fancy" is the most important reason, followed by "obtained good marks" in the last examination. Teachers' advice does not play an important part. At the bachelor's level many students select subjects because they are considered easy.—*U. Pareek.*

8247. Siegel, Alberta Engvall, & Curtis, Elizabeth Ann. (Pennsylvania State U.) **Familial correlates of orientation toward future employment among college women.** *J. educ. Psychol.*, 1963, 54(1), 33-37.—Informant obtained from individual interviews with 43 young women, a random sample from the population of sophomore women on the campus of a large university, was coded by 2 independent scalars to yield measures of the work orientation of the Ss and 5 characteristics of their families: socioeconomic status, parents' educational level, mother's work orientation, parents' views on purpose of college, and parents' attitudes toward importance of education for the daughter. Only 1 of these latter characteristics—mother's work orientation—was found to be significantly correlated with work orientation in Ss. Most Ss stated they intended to marry and to work. The homogeneity of the sample may have operated to depress observed correlations.—*Journal abstract.*

8248. Stern, George G. (Syracuse U.) **Characteristics of the intellectual climate in college environments.** *Harv. educ. Rev.*, 1963, 33(1), 5-41.—1076 students located in 23 colleges were given 2 questionnaires (the Activities Index and the College Characteristics Index), developed by the author and his associates to measure various needs and press. The ensuing factor analyses were used to shed some light on the relationships obtaining between the psychological environments of these colleges and their organization and administration. Schools characterized by "high" and "low" intellectual climates respectively were compared and contrasted in terms of the institutions themselves and the natures of the student bodies. Inferences and suggestions for further investigations were made. (51 ref.)—*C. M. Franks.*

8249. von Harnack, Gustav-Adolf. (Märtnistr. 52, Hamburg, Germany) **Das Schulversagen als ärztliches Problem.** [Failure in school as a medical problem.] *Z. Psychother. med. Psychol.*, 1962, 12(3), 102-111.—In dealing with children having difficulties in school, various aspects have to be investigated: Is the child in the appropriate school? Is the child's mental capacity as determined by the differentiated intelligence test adequate to cope with demands put on him? How is the teacher-pupil relation? Are changes in the family relations advisable? Advice concerning life habits, work, and leisure time may be given or at least discussed with parents who may be rigid in their ambitions. Medical problems have to be dealt with adequately—i.e., tics, enuresis, restlessness, seurocirculatory dystonia, poor concentration power, vegetative lability—not to speak of serious conditions including asthma, diabetes, and brain damage.—*I. Neufeld.*

8250. Willits, Fern K., & Bealer, Robert C. (Pennsylvania State U.) **The utility of residence for differentiating social conservatism in rural youth.** *Rural Sociol.*, 1963, 28(1), 70-80.—2807 Pennsylvania high school sophomores in 1959-60 had less traditional attitudes toward selected aspects of

social behavior than those questioned in 1946-47. Rurality-urbanity of residence still affected the replies.—H. K. Moore.

SPECIAL EDUCATION

8251. Falck, Frank J., & Falck, Vilma T. (DeGoesbriand Memorial Hosp., Burlington, Vt.) Disorders of neurological integrative mechanisms: A rationale for the expansion of our professional scope. *ASHA*, 1962, 4(12), 439-440.—Inadequate attention has been paid by the field of speech pathology and audiology to the communicative and nonoral disturbances such as reading, writing, spelling, calculation, etc., which seem to be symptoms of disorder and integrative mechanisms. A proper share of the training curriculum should be devoted to theoretical and practical considerations of these disabilities, and the profession should become aware of the opportunities which exist within this expanded concept.—M. F. Palmer.

8252. Sokolianskii, I. A., & Meshcherniakov, A. I. (Eds.) *Obuchenie i vospitanie slepoglukhonemykh*. [Teaching and training of blind deaf-mutes.] *Izv. Akad. Pedag. Nauk RSFSR*, 1962, No. 121. 197 p.—These transactions of the Institute of Defectology are devoted to reports on the teaching of blind deaf-mutes, aspects of their development, and formation of their concepts and perceptions. There is included an article on the late Ivan A. Sokolianskii, known for his work in the teaching and training of defective children.—I. D. London.

Reading

8253. Leton, D. A. (U. California, Los Angeles) Visual-motor capacities and ocular efficiency in reading. *Percept. mot. Skills*, 1962, 15(2), 407-432.—There was an indication that reading disability cases—and particularly those with perceptual retardation—were more deficient in graphomotor and oculomotor skills than were the normal readers. Inasmuch as neuromuscular functions and substructure play a major role in the development of these visual motor skills, further clinical studies of children in preschool and beginning reading stages are indicated. Such studies should be of value, not only for the prediction of learning difficulty, but also for a basic understanding of the maturation of visual-motor capacities and their relationship to reading development. (74-item bibliogr.)—W. H. Guertin.

8254. Walters, Richard H., & Kosowski, Irene. (U. Toronto) Symbolic learning and reading retardation. *J. consult. Psychol.*, 1963, 27(1), 75-82.—It was predicted that advanced, average, and retarded readers would also be advanced, average, and retarded in both the number of trials required to master symbolic learning tasks and in their response latencies to visual and auditory symbols. Some confirmation of the prediction was obtained, but both the provision of a reward and the effect of practice increased the efficiency of retarded readers, especially on the auditory task. The data were interpreted as suggesting that retarded readers need an incentive in relatively difficult learning situations and also that, unless highly motivated, retarded readers tend to be less attentive to stimuli. It was further suggested that difficulties in

symbolic learning may be, in part, a function of reduced ability to attend to stimuli.—*Journal abstract.*

Mental Retardation
Gifted Students

8255. Baldwin, J. W. (Santa Rosa, Calif.) The relationship between teacher-judged giftedness, a group intelligence test and an individual intelligence test with possible gifted kindergarten pupils. *Gifted Child Quart.*, 1962, 6(4), 153-156.—100 children registered in 22 different kindergarten classes served as Ss. Their teachers were asked to make judgments of giftedness after 6 weeks of class and again after 7 mo. of class. No definition of giftedness was given to the teachers. Stanford Binet, Form L-M, and California Test of Mental Maturity (CTMM) were administered to the children. Using a Binet IQ of 130 as the criterion for giftedness it was found that the teacher's 1st judgment agreed with it in 26% of the cases. That teacher's 2nd judgment agreed with it in 38% of the cases and CTMM agreed with it in 39% of the cases. The lack of teacher agreement with the criterion raised a question about her ability to identify gifted children. (6 ref.)—N. M. Chansky.

8256. Grace, Harry A., & Lewellyn, Louis W. (Alameda State Coll., Hayward, Calif.) The gifted child in a sociology of knowledge. *J. educ. Sociol.*, 1963, 36(7), 325-334.—"The goal of education must be to wed information with practice. These qualities are already apparent in the gifted child. As teachers, we keep the gate which youth must pass to enter adulthood. Too often the price of passage is the suppression, loss or diversion of youth's priceless gift: effective intelligence."—H. K. Moore.

8257. Kennedy, Wallace A., & Smith, Alvin H. (Florida State U.) A high performance MMPI scale for adolescents. *Psychol. Rep.*, 1962, 11(2), 494.—A description of preliminary results and planned research toward the development of a scale for selection of gifted adolescents.—B. J. House.

8258. Krause, I. B., Jr. Some attributes, aptitudes, and interests of the gifted. *Gifted Child Quart.*, 1962, 6(4), 139, 140, 149.—A segment of an 8-yr. study of superior students in the southeast is reported. The writer points out that gifted students drop their deep interest in philosophy by the time they enter college. Increases in curricular offerings for superior college students during the 8-yr. period were noted in all subject areas. Increases were highest for English, Natural Science, Mathematics, and lowest for Social Science. Availability of financial aid for the natural sciences was suggested as the reason for the increase in offerings in these areas.—N. M. Chansky.

EDUCATIONAL GUIDANCE

8259. Cassell, Russell N. Comparing IBM card and hand scoring pad administration of the Kuder Preference Record. *Calif. J. educ. Res.*, 1963, 14(1), 31-35.—536 9th-grade pupils were given the Kuder, using machine-scorable cards. A month later, 200 of these pupils were given the hand-scorable Kuder. X^2 analysis of the 2 sets of data on the 10 scales revealed no statistically significant differences, taken as evidence of adequate reliability. 178 of the

536 initial records were of doubtful validity, using Kuder criteria and 49 of the 200 retest records were so regarded, evidencing a difference statistically significant at the .05 level. Analysis of the 49 nonvalid records among the 200 retested, showed that the nonvalid pupils scored significantly lower than their 141 classmates in CTMM IQ, and in Iowa Test of Educational Development scores in Reading, General Vocabulary, Basic Social Studie, and Use of Information Sources.—*T. E. Newland.*

8260. Dauber, Moshe. Yeüts psikhologi legomrey kita 8. [Psychological counseling to leavers of 8th grade.] In Moshe Avigal & Uri Blum (Eds.), *Madrikh lekhitot 7-8. [Guide to Grades 7-8.]* Tel Aviv, Israel: Tarbut Vehinukh, 1962. Pp. 29-38.—The oneness of purely psychotechnical and psychotherapeutic approach to counseling is stressed, and the thesis explained that "the final aim of vocational guidance is to adjust the adolescent child to a vocation or to acquiring a vocation." This process lasts some years, and choosing a vocational career is its last step. Maturity in choosing a vocation, vocational interest, and ways to study aptitudes are explained. The teacher's rôle within the framework of vocational guidance is discussed.—*H. Ormian.*

8261. Dave, Indu. (Vidyabawan Teachers Coll., Udaipur, India) **The psychological foundations of guidance.** *Shiksha*, 1961, 14(2), 90-101.—There is a high interaction between guidance and psychology. The main foundations of guidance are the study of personality, psychology of individual adjustment, and objective assessment through tests. Testing is a useful tool in guidance. Some applications of psychological tests are discussed.—*U. Pareek.*

8262. Goffart, J. M., & Minon, P. F. Une approche d'un quotient de maturité vocationnelle: Analyse des données. [An approach to a quotient of vocational maturity, analysis of data.] *Bull. Psychol. scol. Orient.*, 1962, 11, 123-134.—The quotient of vocational maturity takes into account age, intelligence, level of aspiration of the child and of the parents, and vocational choice suitable to the social environment and to the wishes of the parents.—*R. Piret.*

8263. Landy, Edward, & Palmer, John C. **Guidance in the public schools.** Boston, Mass.: Massachusetts Council Public Schools, 1962. 24 p.—A revision of a pamphlet first published in 1956.

8264. Lavianne, A. **Premier bilan des tests de connaissances utilisés en tutelle psychologique.** [First inventory of educational tests used in psychological guidance.] *Bull. Psychol. scol. Orient.*, 1962, 11, 57-67.—A list of educational tests for primary and secondary schools, used in the Belgian Catholic "psycho-medico-social centres."—*R. Piret.*

8265. Manovigyanshala, Allahabad. **Research in psychological testing and guidance in U. P.** *Shiksha*, 1961, 14(2), 156-166.—Research in the Bureau of Psychology in Uttar Pradesh is reported in construction of psychological tests and guidance. 9 intelligence tests, 5 foreign tests, 4 aptitude tests, 1 attainment test, and 2 personality tests were standardised or adapted. Other research is also mentioned.—*U. Pareek.*

8266. Pasquasy, R. **Une methode de controle en orientation scolaire et professionnelle.** [A

method of control in educational and vocational guidance.] Brussels, Belgium: Editest, 1962. 54 p.—This method consists in sending questionnaires and computing correlations in order to find the efficiency of tests and procedures used in educational and vocational guidance.—*R. Piret.*

EDUCATIONAL MEASUREMENT

8267. Adams, R. S. (U. Otago, Dunedin, New Zealand) **Two scales for measuring attitude toward physical education.** *Res. Quart. Amer. Ass. Hlth. Phys. Educ. Rec.*, 1963, 34(1), 91-94.

8268. Campbell, Harry A., Jr. (Alamogordo High School, N. M.) **A study of the correlation between ITED and ACE test results and grades earned in mathematics classes in Alamogordo High School.** *N. Mex. Soc. Stud. Educ. res., Bull.*, 1963(Mar), 5-11.—8 correlation coefficients between grades in mathematics and standardized tests ranged from .33 to .63. Variations in grading practices between teachers were noted.—*J. G. Cooper.*

8269. Misra, Shyam Sunder. **Functional relationship of school subjects with psychological tests.** *Res. Stud., U. Allahabad*, 1962, 13, 29-35.—4 psychological tests (General Intelligence Tests, NIIP 70/23, BPSTI, and NIIP) were administered to 126 students. The scores were correlated with science, history, and craft. Regression coefficients and multiple correlations were also calculated. Results show that: (a) science requires more ability to manipulate verbal symbols, (b) history achievement can be predicted by 2 verbal tests of intelligence, and (c) achievement in craft is also influenced by general intelligence.—*U. Pareek.*

8270. Olson, D. R., & MacArthur, R. S. (U. Alberta, Canada) **The effect of foreign language background on intelligence test performance.** *Alberta J. educ. Res.*, 1962, 8(3), 157-166.—". . . with socio-economic status held constant, the conventional school intelligence tests studied handicap pupils of considerable foreign language background." The Standard Progressive Matrices, the Cattell Test of "g," and the Lorge-Thorndike figure classification showed "no significant relationships with foreign language background."—*R. F. Allen.*

8271. Plumlee, Lynnette B. (Sandia Corp., Albuquerque, N. M.) **Accounting for the fluctuation in test scores.** *N. Mex. Soc. Stud. Educ. res. Bull.*, 1963(Mar), 26-30.—Test users are discouraged from making unwarranted assumptions on the basis of a specific score. 3 examples are given which apply the standard error of measurement, including a histogram based upon the coding scores of 175 clerical applicants.—*J. G. Cooper.*

8272. Rosenzweig, Mark R., & Menahem, Ruth. **Age, sexe et niveau d'instruction comme facteurs déterminants dans les associations de mots.** [Age, sex and level of instruction as determining factors in word association.] *Année psychol.*, 1962, 62(1), 45-61.—Responses to words by similar parts of speech increase with school grade and with educational level, but show no sex differences either among children or adults.—*G. Rubin-Rabson.*

8273. Ross, Leslie W. (Board Educational Finance, Santa Fe, N. M.) **Follow-up study of 1960 New Mexico high school graduates.** *N. Mex. Soc.*

Stud. Educ. educ. res. Bull., 1963 (Mar), 1-4.—Approximately $\frac{1}{2}$ of New Mexico's 8900 high school graduates enrolled in a college; most of them in New Mexico. On the basis of questionnaire returns from $\frac{1}{2}$ of this group, the students who ranked highest on the pregraduation predictors of academic success were, in general, in the best academic position after their 1st college year.—*J. G. Cooper.*

8274. Safran, C. (Alberta Public Schools, Canada) **An introduction to the Safran Culture Reduced Intelligence Test and some reports on its validity from current studies.** *Alberta J. educ. Res.*, 1963, 9(1), 36-44.—The Safran Culture Reduced Intelligence Test is described, and validity and reliability data are reported. It is stated that "the test appears to be a reasonably good measure of potential for those children from different cultures, or lower socioeconomic strata."—*R. F. Allen.*

8275. Savage, R. D. (U. New England, Australia) **Personality factors and academic performance.** *Brit. J. educ. Psychol.*, 1962, 32(3), 251-253.—168 male and female 1st-year university students completed the Maudsley Personality Inventory. Mean neuroticism and extraversion were higher than the norms. High scores on both factors were negatively related to academic performance as measured by number of passes on the annual examinations.—*B. T. Jensen.*

8276. Welck, A. A. (U. New Mexico) **The New Mexico high school statewide tests and academic success at the University of New Mexico.** *N. Mex. Soc. Stud. Educ. educ. res. Bull.*, 1963 (Mar), 31-35.—"The rank obtained by combining the scores of both SCAT and STEP do a superlative job of predicting success at this university."—*J. G. Cooper.*

8277. Young, D. (Barnsley Education Committee) **Examining essays for eleven plus classification.** *Brit. J. educ. Psychol.*, 1962, 32(3), 267-274.—Some of the weaknesses of usual essay marking procedures are discussed and splitting essays by sex and title into small batches suggested, using tables which impose a normal distribution. Data are presented to indicate that addition of the "allocated essay" marks does not detract from the validity of the examination based upon objective tests.—*B. T. Jensen.*

Aptitudes

8278. Humphreys, Lloyd G. **Hierarchical factors in course grades in an Aviation High School.** *USAF PRL tech. docum. Rep.*, 1962, No. 62-23, 10 p.—Factor scores of high school grades were needed for use in a later study of the relationship of Air Force aptitude tests to high school achievement. Separate hierarchical analyses were made for course grades in the technical curriculum and in the mechanical curriculum. A large general factor characterized both solutions, probably reflecting general academic ability. Other factors displayed the expected subject matter groupings, the most significant being a clear-cut shop factor which appeared in both analyses.—*USAF PRL.*

8279. Springob, H. K., & Jackson, C. W. **Measure of abilities and inventoried interests of ninth grade boys.** *Voc. Guid. Quart.*, 1963, 11(1), 37-40.—Results reported were based on a final group of 71 9th-grade boys in a New Jersey school for whom

complete tests results were available (DAT, Kuder Preference Record, Form C, with V-scores within acceptable limits; Otis Beta IQ). The usual findings of low but positive *rs* between matched aptitudes and interests are seen. 2 unexpected results are reported: $-.026$ between DAT Verbal and Kuder Persuasive and $-.595$ between DAT Abstract and Kuder Musical. "Longitudinal studies of interest-ability relationships are desirable."—*W. L. Barnette, Jr.*

8280. Stake, Robert E. (U. Nebraska) **A non-mathematical quantitative aptitude test for the graduate level: The QED.** *J. exp. Educ.*, 1962, 31(1), 81-83.—"The Quantitative Evaluative Device was developed to predict successful pursuit of the graduate college objectives which involve quantitative transactions. The test has been revised in accordance with generally accepted techniques." Evidence of its reasonable predictive and concurrent validity is presented.—*E. B. Page.*

Achievement

8281. Andersen, L. Bryce, & Spencer, Patricia A. (U. Minnesota) **Personal adjustment and academic predictability among college freshmen.** *J. appl. Psychol.*, 1963, 47(2), 97-100.—The objective of this study was to investigate whether the prediction of academic achievement is influenced by personal emotional adjustment as found by Hoyt and Norman in 1954. Samples consisted of 1,465 arts college freshmen from which were selected three "adjustment" groups (normal, one-peak, and maladjusted) according to arbitrary cut-off points on the clinical scale of the MMPI. Correlations between grade point average (GPA) and predictor variables were determined. For the arts college, no significant differences were found between the adjustment groups for the correlation of GPA with either of the predictors high school rank or the Minnesota Scholastic Aptitude Test. 11 predictor variables were used for the engineering freshmen, only one of which yielded statistically significant differences between the adjustment groups. In contrast to the findings of Hoyt and Norman, it was concluded that the prediction of academic achievement is not influenced by personal adjustment.—*Journal abstract.*

8282. Finger, John A., & Schlessner, George E. (Brown U.) **Academic performance of public and private school students.** *J. educ. Psychol.*, 1963, 54(2), 118-122.—Public school students are reported to obtain higher college grades than private school students. Equating on scholastic aptitude is reported to leave a difference favoring the public school student. The Personal Values Inventory, a test measuring non-intellectual factors in school success, was administered to an entering college class. 216 had attended public school and 97 private school. When grades were regressed for the Scholastic Aptitude Test, Verbal and Mathematical; the Ohio State Psychological Examination; and the Personal Values Inventory, the group means did not differ significantly. Regressing for these factors randomly distribute grades among private and public school students. A second sample showed similar results for the group means. The conclusion is that private school students do less well because as a group they are lower in scholastic aptitude and in motivation.—*Journal abstract.*

8283. Gustav, Alice. (New York U.) **Comparison of college grades and self-concept.** *Psychol. Rep.*, 1962, 11(2), 601-602.—"It was not found possible to differentiate, on the basis of responses to the 'Who am I?' Test, among college students who had superior, average, or failing grades [$N = 160$]."—B. J. House.

8284. Teahan, John E. (U. Wisconsin-Milwaukee) **Parental attitudes and college success.** *J. educ. Psychol.*, 1963, 54(2), 104-109.—Though highly successful academically in high school, $\frac{1}{2}$ of the student Ss of this study (46 males and 44 females) did poorly during their 1st year of college. Although no differences were found in the child rearing attitudes of the students themselves, compared to their daughters the mothers of low achieving girls had stronger attitudes relating to domination and the use of discipline ($p < .01$). In the case of low male achievers, the disparity was primarily between father and son, fathers being more possessive and dominating ($p < .05$). It is suggested that insufficient development in self-sufficiency and independence handicapped the underachievers.—*Journal abstract.*

8285. Vliet, W. Van. **The validity of school marks.** *Shiksha*, 1962, 15(2), 56-68.—A more rational method of assigning marks is classificatory marking by teachers. 2 things to be decided by each teacher are: the number of subclasses and the mark to be assigned to the highest subclass. The classificatory method is explained.—U. Pareek.

EDUCATIONAL PERSONNEL

8286. Anderson, C. C., & Hunka, S. M. (U. Alberta) **Teacher evaluation: Some problems and a proposal.** *Harv. educ. Rev.*, 1963, 33(1), 74-95.—The psychology of the learning process and the statistical techniques of multivariate analysis were applied to the problems of teacher evaluation. Experimental tests of the resulting model are suggested. (120 ref.)—C. M. Franks.

8287. Fielstra, Clarence. (U. California, Los Angeles) **Discriminative and predictive values of ratings given to UCLA student teachers on the secondary school level.** *Calif. J. educ. Res.*, 1963, 14(1), 11-18.—Out of 200 student teachers rated on the UCLA rating form (32 characteristics), the top 50 and bottom 50 students were identified and rated, on the same device, by their principals after one year of teaching. "Ratings given to (them) have statistically significant value in predicting subsequent first-year teaching success. Ratings given to (them) on each of the 32 characteristics are more discriminative between 'excellence' and 'goodness' than are subsequent ratings given them by principals at the conclusion of their first year of teaching." UCLA rating on "scholarship" were more discriminative than are ratings on "personal qualities." The reverse was found to be true with respect to the principals' ratings.—T. E. Newland.

8288. Isaacson, Robert L., McKeachie, Wilbert J., & Milholland, John E. (U. Michigan) **Correlation of teacher personality variables and student ratings.** *J. educ. Psychol.*, 1963, 54(2), 110-117.—A peer group nomination procedure, a descriptive adjective inventory, and the IPAT 16 PF Questionnaire were administered to 2 groups of teaching fel-

lows in the introductory psychology course at the University of Michigan. These personality scores were related to the teaching fellows' teaching effectiveness ratings made by their students and to the factor scores obtained from factor analyses of the separate items of the student rating instrument. The teacher personality variable most consistently correlated with good ratings by students was the peer group evaluation of the teaching fellows' "general cultural attainment." The relations of the personality scales to the other dimensions of student ratings are also presented. (17 ref.)—*Journal abstract.*

8289. Reichenberg-Hackett, Wally. (Duke U.) **Scoring teacher behavior in nursery groups.** *Psychol. Rep.*, 1962, 11(2), 600.—A report that a detailed account of scoring methods described in a previous experiment is now available from the American Documentation Institute.—B. J. House.

8290. Rudd, W. G. A., & Wiseman, S. (U. Manchester, England) **Sources of dissatisfaction among a group of teachers.** *Brit. J. educ. Psychol.*, 1962, 32(3), 275-291.—590 teachers (about 72%), completing training at the University of Manchester in 1955, were queried. The majority had experienced satisfaction in teaching (more in infant and grammar schools). Sources of dissatisfaction are described and discussed.—B. T. Jensen.

8291. Taylor, P. H. (U. Leicester, England) **Children's evaluations of the characteristics of the good teacher.** *Brit. J. educ. Psychol.*, 1962, 32(3), 258-266.—897 children completed checklists based upon statements made about teachers written by 1379 pupils. Analysis of each of 5 scales is discussed.—B. T. Jensen.

8292. Wallen, Norman E., Travers, Robert M. W., Reid, Ian E., & Wodtke, Kenneth H. (U. Utah) **Relationships between teacher needs and teacher behavior in the classroom.** *J. educ. Psychol.*, 1963, 54(1), 23-32.—2 samples of elementary school teachers ($N = 77$ and 41) were studied with respect to consistencies between classroom behavior and "needs" as measured by a paper-and-pencil questionnaire. The paper-and-pencil device provided scores on Achievement, Affiliation, Recognition, and Control needs. Behavioral data consisted of observations recorded as ratings and also as Q sorts and an analysis of verbal statements made by the teachers. The principal findings were: (a) significant positive relationships among the various measures of teacher behavior on the Control and Affiliation dimensions, (b) a significant negative relationship between Control and Affiliation behavior as viewed by the observers, and (c) significant positive correlations (.30-.50) between Control need as measured by the questionnaire and controlling behavior of the teachers.—*Journal abstract.*

8293. Wattenberg, William W. (Wayne State U.) **Evidence and the problems of teacher education.** *Teachers Coll. Rec.*, 1963, 64(5), 374-380.—Issues are raised on: "How to eliminate the lag between discovery and field application, and how to base the development of our teacher-education programs on scientifically determined facts as to what a teacher does, what in teachers makes a difference to children, and how teachers can be developed with the optimum of those attributes which genuinely make a difference in actual classrooms." We need "multi-

discipline, large scale searches for basic principles and for their applications."—*H. K. Moore.*

8294. Willey, Darrell S., McComas, James D., & Miller, Luit K. (New Mexico State U.) A suggested research model for the investigation of classroom teacher effectiveness. *N. Mex. Soc. Stud. Educ. educ. res. Bull.*, 1963 (Mar), 19-25.—A schematic adaptation of Halpin's paradigm showing how 41 variables can be utilized in studying teacher effectiveness.—*J. G. Cooper.*

INDUSTRIAL & MILITARY PSYCHOLOGY

8295. Barbour, A. B., & Whittingham, H. E. (Eds.) (British-European Airways, London, England) **Human problems of supersonic and hypersonic flight.** London, England: Pergamon, 1962. xvii, 592 p. \$20.00.—This book reproduces the papers presented at the 5th European Congress of Aviation Medicine held in London from August 29 to September 2, 1960. 5 general areas are covered: (a) flying personnel research, (b) human efficiency related to flight performance and operational procedures, (c) human efficiency related to airborne systems, (d) flight environment and safety, and (e) human efficiency related to ground control systems. A section of miscellaneous papers is also included. Each individual paper is preceded by English and French summaries.—*S. L. Freud.*

8296. Thomas, L. Jean. (Ed.) **A bibliography of reports issued by the Behavioral Sciences Laboratory: Engineering psychology, training psychology, environmental stress, simulation techniques and physical anthropology.** Wright-Patterson Air Force Base, O.: 6570th Aerospace Medical Research Laboratories, Behavioral Sciences Laboratory, 1962. 78 p.—"This bibliography lists, by functional groupings, the technical reports, technical notes, contractor reports, memorandum reports, and journal articles prepared by the Behavioral Sciences Laboratory, and its contractors, from 1945 through 1961."—*USAF AMRL BSL.*

VOCATIONAL GUIDANCE & APTITUDES

8297. Campbell, David. (U. Minnesota) **Change on SVIB: Dice or men?** *J. appl. Psychol.*, 1963, 47(2), 127-129.—The profile report form for the Strong Vocational Interest Blank has shaded areas, established by throwing dice, to indicate chance scores on the various scales. The SVIB manual suggests that this shaded area be used as a reference point to determine if a given score is significant. This article suggests that the shaded areas should be determined by scores of the Men-in-General group instead of throwing dice. The effect of this on the shaded area is shown on a sample profile report form.—*Journal abstract.*

8298. Parker, H. J. **29,000 Seventh graders have made occupational choices.** *Voc. Guid. Quart.*, 1963, 11(1), 54-55.—373 Oklahoma public schools were involved and 29,000 students (66% of all 7th graders) were surveyed concerning educational and vocational plans. The data show that these students believe they have made reasonable firm plans for their occupational future (66% indicated definite plans). Less than 10% of the group described themselves as

without any occupational goal. Should this be a general finding, a program of vocational exploration should be started at this early stage.—*W. L. Barnette, Jr.*

8299. Rusalew, Herbert. (Hunter Coll.) **The floundering period in the late careers of older disabled workers.** *Rehabilit. Lit.*, 1963, 24(2), 34-40.—The older disabled worker goes through a period of floundering in his work history similar to the young worker seeking his role in the world of work. The older disabled worker often finds himself unable to return to his previous stable position, and so becomes involved in short-term jobs which force a re-evaluation of the vocational self-concept. Characteristic of this period is mobility which is vertically downward, and horizontally toward clerical or service occupations. Services needed are: (a) An ongoing counseling service, (b) an ongoing placement service, and (c) a disengagement workshop designed to give opportunities for gradual work reduction. (26 ref.)—*W. D. Kerr.*

8300. Strong, Edward K. (Stanford U.) **Reworded versus new interest items.** *J. appl. Psychol.*, 1963, 47(2), 111-116.—In revising the SVIB, 49 items were reworded and 101 items were replaced by new ones. The change in content between the original and reworded items was judged too slight to affect scoring of these items using current weights. The change in content between the original items and new items was judged too significant to allow these items to be scored on existing scales using current weights. To determine whether these judgments were correct, control and experimental groups responded to the items in a test-retest situation with a 3-day interval. 3 measures of stability agreed very well but not perfectly. An average of the 3 procedures indicated that 10 of the 49 reworded items should be classified as new instead of reworded. The criterion, stability of items, is a useful one in the selection of new items.—*Journal abstract.*

OCCUPATIONAL & CAREER INFORMATION

8301. Ladinsky, J. (U. Wisconsin) **Careers of lawyers, law practice and legal institutions.** *Amer. sociol. Rev.*, 1963, 28(1), 47-54.—"A sample of 207 stable metropolitan lawyers evenly divided among individual and medium-to-large firm practices is analyzed for relationships between background and type of law practice. Data reveal that solo lawyers more often come from minority religious-ethnic, entrepreneurial, and working-class homes, have inferior educations, and experience chaotic work histories. Causal analysis establishes that religious and socioeconomic origins are independent background factors. These findings are interpreted in terms of the processes and effects of self-selection and recruitment in the allocation of the lawyer labor supply to work settings. The importance of the social composition of the recruitment base for legal practice and the law is explored. It is suggested that background characteristics give rise to career contingencies that impose a number of important constraints on the operation of legal institutions."—*L. Berkowitz.*

8302. Madden, Joseph M., & Bourdon, Roger D. **Effects on judgment of variations in rating scale format.** *USAF PRL tech. docum. Rep.*, 1963, No.

63-2. iii, 16 p.—The purpose of this study was to determine whether mean job evaluation ratings would differ as a function of 7 variations in rating scale format. 60 basic airmen rated 15 occupations on 9 job requirement factors for each format. A 3-way analysis of variance (jobs, factors, scale format) resulted in statistically significant terms for each of the main effects and for all 4 interaction terms. It was concluded that rating scale format was a determinant of the judgment of raters in this sample and that selection of an optimal format should be based upon capability to predict a criterion.—*USAF PRL*.

8303. Ruth, Roger A. Readability of occupational materials. *Voc. Guid. Quart.*, 1963, 11(1), 7-10.—The Farr-Jenkins-Paterson simplification of the 1948 Flesch reading ease index was applied to the total content of the 1959 Career Information Kit Supplement (85 SRA Occupational Briefs and 35 items from other sources). The mean grade level rating was 14.7. The SRA materials used simpler vocabulary but tended to over-long sentences; they are, however, more consistent in readability level than items written by public relations people. The reading level of all of these materials is too high to serve as incidental reading material for most high school students.—*W. L. Barnette, Jr.*

8304. Shuval, Judith T. Perceived role components of nursing in Israel. *Amer. sociol. Rev.*, 1963, 28(1), 37-46.—"This paper explores the dominant sources of recruitment for the nursing profession in Israel. The relatively high status position of the nursing profession among the non-academic women's occupations in Israel has served to attract girls from lower-class origins, especially immigrant girls to whom alternative avenues of mobility may be less available. A second problem concerns the differential perception of the nursing role by different types of potential recruits. We identify two dominant role components of the professional nurse: the 'affective' role component and the 'scientific-technical' role component. Among immigrant girls who are attracted to nursing, those from lower-class origins tend to emphasize the 'affective' role component, while those from upper-class origins are more likely to place an emphasis on the 'scientific-technical' aspects of the profession."—*L. Berkowitz*.

SELECTION, PLACEMENT, APPRAISAL

8305. Ambler, Rosalie K. Selection procedures for non-pilot naval aviation officers. *USN Sch. Aviat. Med. res. Rep.*, 1963, Proj. MR005.13-3003, Subtask 1, Rep. No. 36. ii, 10 p.—This study developed an optimal method of selection for the Navy's nonpilot aviation officer program. Use of minimums on the Aviation Qualification Test and mathematics portion of that test was demonstrated as the most reasonable procedure among the alternatives investigated. The Flight Aptitude Rating contributed slightly to validity, but its use was questioned because of the increased number who would be rejected thereby. Other quantitative tests added statistical significance to the Navy's Aviation Selection Tests in predicting performance in Basic NAO training; however, on practical grounds, this significance was considered to be of insufficient magnitude to justify their use.—*USN SAM*.

8306. Elliott, L. L. Hearing of Air Force pilots: 1955 to 1962. *USAF SAM tech. docum. Rep.*, 1962, No. 62-127. 6 p.—The author compared records for all pilots tested by the School of Aerospace Medicine Audiology Laboratory from 1955 through mid-April 1962. When compared by age groups with Ss reported in 2 civilian studies, pilots are found to have relatively good hearing.—*M. C. Payne, Jr.*

8307. Ford, Frank B. A technique for the evaluation of recruiting strategy with fluctuating availability and known demand. *USAF PRL tech. docum. Rep.*, 1962, No. 62-22. 17 p.—Large organizations, such as the armed services, have a fairly constant requirement for new personnel, but availability of recruits varies from month to month. It is proposed that manpower needs be met by exceeding quotas at times of high availability of qualified applicants and holding surpluses inactive until needed. A special case of the general linear programming model, the "transportation problem," provides a computer technique for determining the optimal scheduling of overages and holding times to keep holding costs at a minimum. Different arbitrary estimates of holding costs applied to a series of problems demonstrate the importance of accurate cost estimates. Procedures for continuing improvement of input data are suggested.—*USAF PRL*.

8308. Forehand, Garlie A. (U. Chicago) Assessments of innovative behavior: Partial criteria for the assessment of executive performance. *J. appl. Psychol.*, 1963, 47(3), 206-213.—Assessments by superiors and peers of the innovative behavior of administrators are considered as partial criteria of executive performance. A measure based upon 7-point rating scales was adjudged unacceptable as a measure of innovative behavior, because of insufficient discriminant validity with respect to ratings of other attributes, and because of uniformly high correlation with ratings of general effectiveness, regardless of raters' independently expressed attitudes toward innovative behavior. A measure based upon forced-choice between innovative and noninnovative descriptions shows more promise; its major correlates both within and across raters are other measures of innovation and of attributes theoretically related to innovativeness; and it is significantly correlated with general effectiveness ratings only when assessors report, by an independent measure, that they value innovative behavior highly. Assessments are influenced by status of assessor (supervisor or peer) and by organizational climates. (19 ref.)—*Journal abstract*.

8309. Hill, T. Gardner. (Glen Head, N. Y.) Performance rating of technical personnel. *Advanc. Mgmt.-Off. Exec.*, 1963, 2(1), 22-25.—A method of rating through the use of specially ruled forms to minimize bias due to "the ideal man image" and/or personality compatibility between rater and rated.—*E. Q. Miller*.

8310. Johnson, Donald M. (Michigan State U.) Reanalysis of experimental halo effects. *J. appl. Psychol.*, 1963, 47(1), 46-47.—Data on ratings of individuals, obtained under 2 conditions of judgment and published in 1956, were reanalyzed by a more complete analysis of variance. The usual interaction between raters and individuals, called a halo effect, was found but it was not influenced by judgment conditions intended to maximize it. Hence, the evidence

for halo effect due to judging operations remains questionable.—*Journal abstract.*

8311. Kirchner, Wayne K., & Mousley, Nancy M. (Minnesota Mining Manufacturing Co., St. Paul) A note on job performance: Differences between respondent and nonrespondent salesmen to an attitude survey. *J. appl. Psychol.*, 1963, 47(3), 223-224.—Salesmen respondents (N=72) and nonrespondents (N=19) to a mail attitude questionnaire were compared in terms of 2 objective measures of performance: net sales points and net total points. Mean scores on both measures were significantly higher for respondents than for nonrespondents. These results tended to follow results of other studies in nonindustrial settings that suggested volunteers or respondents are, in general, "better" persons in terms of such variables as motivation, personality and, in this case, job performance.—*Journal abstract.*

8312. Lepkowski, J. Richard. Development of a forced-choice rating scale for engineer evaluation. *J. appl. Psychol.*, 1963, 47(2), 87-88.—A technique alternative to the conventional ratings of engineers by their supervisors was studied. A 20-triad forced-choice rating scale was constructed. 33 engineers were rated by their supervisors using this device. The reliability of these ratings was .90. An item analysis showed 19 of the 20 triads to have strong discriminating power between high and low scorers. The same Ss were also rated in 8 different areas on a 4-point scale. The reliability of the 2nd rating scale was .87. The 2 scales correlated .73 with each other. These findings support previous research concerned with the more general applicability of the forced-choice technique for the determination of criterion scores.—*Journal abstract.*

8313. Lichtenstein, S., & Hahn, C. P. Feasibility of identifying predictors of success in officer jobs from personnel records and the Word Picture section of effectiveness reports. *USAF PRL tech. docum. Rep.*, 1962, No. 62-16. 62 p.—To increase the amount of information that can be used in determining desirable job requirements and in evaluating officer performance, 2 sources were examined for pertinent and scalable variables. From personnel records of officers in the communications specialty and the research and development career area, 76 variables were identified and scaled. By developing a method for content analysis, information from the Word Picture section of the Officer Effectiveness Reports for the same officers was quantified on 89 scales. Individual data records, score distributions, and intercorrelations of 165 variables for the 2 samples are available for use in developing qualifications and criteria for jobs in these areas.—*USAF PRL.*

8314. Mayo, G. Douglas, & Winiewicz, C. S. Prediction of success in AE(B) School from advancement in rating examination grades. Great Lakes, Ill.: United States Naval Training Center, Naval Examining Center, 1962. (CNATT P-201) 22 p.—"The study establishes that scores made on the appropriate Navy-wide Competitive Examinations for Advancement in Rating are useful in predicting the success of prospective students in the Advanced Aviation Electrician's Mate (AE"B") School. It indicates, further, that examinations for advancement to AE2, AE1, or AEC may be combined effectively with Navy Basic Test Battery scores (the

Navy Arithmetic Test, ARI, score in particular) to predict success in the AE"B" School."—C. T. Morgan.

8315. Perkins, Edward A., Jr., & Wiper, Robert E. (Washington State U.) Selecting the best stenographer. *Advanc. Mgmt.-Off. Exec.*, 1962, 1(11), 18-21.—Typing tests should be graded on syllabic intensity; stroke intensity; common words; doubled-letter words; right-hand words; left-hand words; and combined double, left-hand, and right-hand words if the tests are to be useful. Company dictating rates should be measured, and copy should be standardized for mailability as well as speed. In general the work situation should be validly represented in the test situation.—E. Q. Miller.

8316. Steininger, Konrad. (Inst. Flugmedizin, Hamburg, Germany) Psychologische Ursachen von Flugfehlern in der Ausbildung von Berufsfugzeugführern. [Psychological origins of flight-errors during flight instruction.] *Z. exp. angew. Psychol.*, 1962, 9(4), 667-700.—Flight errors that appear to the instructor as functional deficiencies of the trainee may be caused by multiple psychological problems. The study aims at a much more careful briefing of flight instructors in order to enable them to make a better evaluation.—W. J. Koppitz.

8317. Triandis, Harry C. (U. Illinois) Factors affecting employee selection in two cultures. *J. appl. Psychol.*, 1963, 47(2), 89-96.—4 samples—100 Illinois and 100 Greek students, 32 Illinois and 20 Greek personnel directors (PDs)—were asked to respond to a structured questionnaire which permitted the computation of the relative weights that would be given to various characteristics (competence, age, sex, race, religion, sociability, and wealth) by these people, if they were hiring employees for various levels of jobs in the accounting and finance department of a company. The responses of the 4 samples were similar. However, the American PDs gave more weight to race and the Greek PDs more weight to age than did the other samples. The students differed significantly from the PDs; in both cultures, the students gave larger weights to competence than did the personnel directors.—*Journal abstract.*

8318. Whitlock, Gerald H. (U. Tennessee) Application of the psychophysical law to performance evaluation. *J. appl. Psychol.*, 1963, 47(1), 15-23.—In the area of job performance, it was hypothesized that evaluations, e.g., "poor" to "excellent," were based on the observation of "performance specimens" where a performance specimen is defined as "an incident of relevant performance which at the time of observation was classed as uncommonly effective or uncommonly ineffective." It was further hypothesized that the psychophysical law ($y = kx^n$) would describe the relationship between the number of specimens observed (x) and resulting evaluations (y) of performance. Finally, it was hypothesized that Steven's criterion for prothetic continua would be satisfied—concave downward curve when ratio estimation scale values for sets of performance specimens are plotted against corresponding category scale values. Using simulated performance ratings as well as actual performance evaluations (performance ratings of apprentices, professors, supervisors, and executives) the above hypotheses appear to have been verified.—*Journal abstract.*

8319. Wright, Morgan W., Sisler, George C., & Chylinski, Joanne. (U. Manitoba) Personality factors in the selection of civilians for isolated northern stations. *J. appl. Psychol.*, 1963, 47(1), 24-29.—An investigation of personality characteristics associated with favorable adjustment to northern isolated living, and the usefulness of psychological tests in the selection of personnel for northern posting. 197 electronic technicians already screened on other psychological tests completed MMPI, Edwards Personal and Brainard Preference tests, and General Information and Arctic Interest questionnaires prior to 1 year of isolation duty on the mid-Canada Line. Adequacy of work and social adjustment was associated with 11 of 35 test variables and 3 of 26 questionnaire items. The discriminating function of the MMPI was reduced by the use of the K correction. It was suggested that despite the highly select nature of the sample used, the test battery has potential value in the selection of civilians to work in the far north.—(17 ref.)—*Journal abstract*.

TRAINING

8320. Anderson, Adolph V. Training, utilization, and proficiency of Navy Electronics Technicians: IV. Proficiency in mathematics. *USN Bur. Naval Personnel tech. Bull.*, 1962, No. 62-16. ii, 8 p.—"The fourth report in a series based on the results of a major survey of the training, utilization, and proficiency of Navy Electronics Technicians (ET's) which was conducted in the Pacific Fleet and the western United States during the first half of 1961. A Mathematical Achievement Test designed to measure basic abilities was developed and included in the survey. All of the items in the test were open-ended. Results tend to support the opinions of those who contend that ET's, in general, lack proficiency in mathematics. Mathematical Achievement Test scores were found to be related to school marks but not to any measure of ET job proficiency included in this study. It is concluded that no ET job performance requirement for greater mathematical capability has been revealed."—*N. Earl*.

8321. DeBurger, Robert A. The effects of practice on the performance of basic armor skills at night. *HumRRO res. Memo.*, 1962, Subtask Armornite VIII, Task 11-27. viii, 32 p.—10 basic tasks associated with the M48A2 tank were studied under varied illumination. Some require more night training than others. Simply assigning a proportion of night work to all tasks could produce deficiency in some and overtraining in others.—*R. Tyson*.

8322. Gonyea, George G., & Lunneborg, Clifford E. (U. Texas) A factor analytic study of perceived occupational similarity. *J. appl. Psychol.*, 1963, 47(3), 166-172.—Job perceptions and "occupational stereotypes" play leading roles in many current theories of occupational choice. Case II of Andrews' A-technique was used to explore the dimensions by which occupations are perceived. Factor analysis of perceived similarity among 22 occupational stimuli yielded results corresponding directly to 5 second-order factors obtained in an earlier study which had employed different Ss, a different procedure, and different occupational stimuli. Results also shed light on college students' perceptions of popular vocational

objectives and on the relationship between job perceptions and interest factors.—*Journal abstract*.

8323. Haggard, Donald F. Training methods for simulators of remote control human-guided missile systems: I. A comparative evaluation of component skill and total skill training exercises. *HumRRO res. Memo.*, 1962, Subtask Firepower VII, Task 11-26. ii, 29 p.—A study was designed "to determine the relative effectiveness of total task practice" in simulator training and to evaluate the advisability of further research. Results show that fractionation of the total task for effective S-55 simulator training is not required.—*R. Tyson*.

8324. Haggard, Donald F. The feasibility of developing a task classification structure for ordering training principles and training content. *HumRRO res. Memo.*, 1963. iv, 69 p.—The "subject of scientific systematics as it applies to the analysis and synthesis of behavior" is examined and analyzed in detail, "to determine whether some useful behavioral structure can be imposed upon the process of military training so that we can understand the process more fully and study it more meaningfully."—*R. Tyson*.

8325. Harding, Francis D., Downey, Robert L., Jr., & Bottenberg, Robert A. Career experiences of AFIT classes of 1955 and 1956. *USAF PRL tech. docum. Rep.*, 1963, No. 63-9. vi, 41 p.—To determine the utilization, attitudes, and retainability of officers who participate in Air Force Institute of Technology (AFIT) programs, a questionnaire survey was made of the 1955 and 1956 classes. Returns from 82% of the 1380 officers still in service and 62% of the 387 who had left it provided information about training, career experience, and attitude toward the Air Force. Responses showed that those apt to remain in service were older, married, regular officers. Younger officers who were ROTC graduates assigned to engineering and scientific fields were likely to leave the service. Most frequent reasons given for leaving the Air Force were: promotions not based on merit, better civilian job opportunities, low pay, and unsettled family life. Inservice officers' reasons for remaining were retirement advantages and amount of time already invested. They might decide to leave for a high-paying civilian job, loss of flight pay, or missing out on promotion. Nonmonetary aspects of the work situation were important determiners of job satisfaction. A Retention Potential Score, using information available before AFIT assignment, applied as a screening device would appreciably increase the retention of AFIT graduates.—*USAF PRL*.

8326. Kopstein, Felix F., Cave, Richard T., & Zachert, Virginia. Preliminary evaluation of a prototype automated technical training course. *USAF MRL tech. docum. Rep.*, 1962, No. 62-78. iv, 22 p.—This field study, conducted at Keesler Air Force Base, Mississippi, constituted a preliminary evaluation of intrinsic programming for automated training. Automated instructional materials used during the first 6 weeks of the Communications Electronics Principles course were presented to beginning electronic students via 35-mm. film on the AutoTutor Mark I, a rearview projection machine. Using the Keesler Mathematics Test, 3 groups—Experimental, Control, and Blind Control—were selected and matched from the middle ability range of each of 2 entering classes. The Experimental group received

via the machines all instruction normally received through lecture and discussion. However, they followed the usual method for their practical problems. The students using machines learned adequately from this experimental program. The interpretations of these results and implications for Air Force training are discussed. (17 ref.)—*USAF MRL*.

8327. Kurtzberg, Jerome M. (Burroughs Corp., Paoli, Pa.) **Dynamic task scheduling in flight simulators.** *USAF AMRL tech. docum. Rep.*, 1963, No. 63-17, iv, 45 p.—This report deals with the possible mechanization of dynamic task scheduling in flight simulators, i.e., developing a Task-Sequencer. Attention is focused on the possible application of some of the heuristic programming techniques, and an evaluation of their work for that specific purpose is made. 2 main applications for a Task-Sequencer are defined. The 1st involves the traditional training of students (flight crews) for flight vehicle operation, termed the operation-teaching mode. The 2nd is for the development of tactical skill, i.e., crew decision-making capabilities, termed the tactic-teaching mode. Algorithms for task sequencing in real time are formulated for both of these classes of applications. The only possible benefits in employing a heuristic programming scheme appear to exist when it is used for an ancillary role in the tactic teaching mode. This includes development of specific task flow diagrams and associated scoring charts. Finally, recommendations are made for further work.—*USAF AMRL*.

8328. McKnight, A. James. (Ed.) **Methods and devices for teaching data flow to electronics maintenance personnel.** *HumRRO res. Memo*, 1962, Task Trace I. iv, 60 p.—Trouble-shooting logic should be taught before concentrating on a particular system. Extended stress on particular systems should be limited "to those for which the man is being trained." 3 signal-flow simulators were developed for training and research. (19 diagrams & photographs.)—*R. Tyson*.

8329. Naylor, James C., & Briggs, George E. (Ohio State U.) **Effect of rehearsal of temporal and spatial aspects on the long-term retention of a procedural skill.** *J. appl. Psychol.*, 1963, 47(2), 120-126.—The study examined several rehearsal techniques as means of facilitating the retention of a discrete procedural task. 4 rehearsal conditions were defined as: whole task rehearsal, temporal rehearsal, spatial rehearsal, and no rehearsal. All groups were trained for 5 days, given 10 days of no practice, 5 days of rehearsal, 11 more days of no practice, and a retention test. The number of commissive errors showed significant retention differences, with the whole rehearsal group performing best. Omissive errors and reaction time did not show group differences. It was also found that Ss emphasized those metrics of performance which gave the most immediate feedback.—*Journal abstract*.

8330. Weschler, Irving R., & Schien, Edgar H. (Eds.) (Massachusetts Inst. Technology) **Issues in human relations training.** Washington, D. C.: National Education Association, National Training Laboratories, 1962. (NEA NTL Selected Readings Ser. No. 5) viii, 121 p. \$2.00.—This book is the 5th in a series bringing together papers published since

1945 by members of the National Training Laboratories staff on laboratory training in human relations. The volume consists of 10 papers, 2 original and 8 reprinted or adapted, by the editors or by 1 or more of 12 other authors. Topics include current status and extent of human relations training, theory and method, sensitivity training, management and organization development, the instrumented training laboratory, team training, ethical issues, trainer role, and training as a profession.—*B. V. Moore*.

8331. Wiener, Earl L. (U. Miami) **Knowledge of results and signal rate in monitoring: A transfer of training approach.** *J. appl. Psychol.*, 1963, 47(3), 214-222.—This study investigated the transfer effects of training with 3 signal rates and 3 levels of knowledge of results (KR) in a visual monitoring task. Each S monitored for 48 min. under 1 of 9 signal rate-KR conditions on Day 1. On Day 2 all Ss monitored under the medial signal rate with no KR. Results show: (a) on Day 1 mean probability of detection increased with signal rate and amount of KR, (b) these differences persisted on Day 2 when KR was withdrawn, and (c) commissive errors were higher with partial KR than with either full KR or none. It is concluded that training a monitor with KR and high signal rates may improve performance when he must monitor with low signal rates and no feedback. (28 ref.)—*Journal abstract*.

TASK & WORK ANALYSIS

8332. Bass, B. M. (U. Pittsburgh) **Are motor response elements additive?** *Percept. mot. Skills*, 1962, 15(2), 433-434.—Although the elements of a work cycle are seldom independent of each other, simple addition of elemental times is still appropriate when more than 10 elements are to be combined, when the correlations among elements are above .5, or when differential weighting for the several elements would not vary much.—*W. H. Guertin*.

8333. Bergum, Bruce O., & Lehr, Donald J. (USA Air Defense Human Research Unit, Fort Bliss, Texas) **Effects of authoritarianism on vigilance performance.** *J. appl. Psychol.*, 1963, 47(1), 75-77.—An experiment was performed on the effects of authoritarian monitoring conditions upon vigilance performance. Two groups of 20 Ss each were employed. One group worked at a light monitoring task for a period of 135 min. without rest and alone. The second group worked at the same task for the same amount of time but was observed by either a commissioned or noncommissioned officer according to a random visiting schedule. Signal rate was 12 signals per hr. The results indicated a highly significant facilitation of detection performance resulting from observation by the officers. It was suggested that these conditions represent an extreme point along a dimension of perceived threat to the monitor.—*Journal abstract*.

8334. Kidd, J. S. (Ohio State U.) **Work team effectiveness as a function of mechanical degradation of the intrateam communication system.** *J. engng. Psychol.*, 1963, 2, 1-14.—Using a simulated radar air traffic control task requiring close coordination between team members, 3 experiments showed that: (a) team performance was degraded by high level channel noise combined with a marginal signal-

to-noise ratio, (b) a critical frequency range around 1500 cps. was more resistant to the effects of restricted bandwidth than either higher or lower frequencies, and (c) increasing channel-off time from 0 to 30% resulted in a "near-linear" degradation in performance. (18 ref.)—*D. C. Hodge.*

8335. Nayyar, Ravi M., & Simon, J. Richard. (U. Iowa) Effects of magnification on a subminiature assembly operation. *J. appl. Psychol.*, 1963, 47(3), 190-195.—This experiment was designed to investigate the effects of magnification on the duration of elements of a subminiature assembly operation. The task consisted of grasping a metal dot .010 in. in diameter with a tweezers, transporting it to a hole, and dropping it into the hole. Ss used a binocular type industrial microscope and performed under 3 magnifications, 20X, 30X, and 40X. Precision of the task was varied by changing the diameter of the hole into which the dot was assembled. Results indicated that no single magnification was optimum for all elements. For pick up and travel loaded, 30X was optimum while for travel unloaded, 20X was optimum. Results for the assemble element were inconclusive. There was no evidence that the optimum magnification is dependent upon the precision requirements of the task.—*Journal abstract.*

WORK ENVIRONMENT & PERFORMANCE

8336. Fletcher, J. L., Loeb, M., & Harker, G. S. Field evaluation of the hazard to hearing of a proposed 25 meter range to personnel wearing ear protective devices. *USA Med. Res. Lab. Rep.*, 1962, No. 555. ii, 11 p.—Sound pressure level (SPL) measurements were made and audiometric data obtained on soldiers firing on a prototype range, on the same range redesigned, and upon the redesigned range with sound-deadening material installed. The soldiers were protected at all times while firing by 1 of 3 different ear-protective devices: 2 insert-type and 1 muff-type device. Results showed no significant difference in the temporary threshold shifts associated with the use of any of the 3 different protective devices or any of the 3 firing points. The redesign and sound-deadening efforts reduced the temporarily integrated SPL for the prototype range by 8 db.—*USAMRL.*

8337. Groth, Hilde, & Lyman, John. (U. California, Los Angeles) Measuring performance changes in highly transient extreme heat stress: Rationale, problem, and experimental procedures. *USAF AMRL tech. docum. Rep.*, 1963, No. 63-1. iv, 22 p.—A review of the existing state of the art for handling human performance under transient heat stress has been made. It was concluded that it would be necessary to develop a new methodology based on "micro-performance" measurements to assess severe localized transient heat stresses as relevant to contemporary flight problems. The test procedure proposed is based on the rationale that a primary task with difficulty that can be varied according to S error in order to maintain a relatively constant S performance level can be used as a measure of the moment-to-moment perceptual load. In addition to the primary task, secondary tasks have been suggested to help simulate problems in decision-making and verbal communication. (45 ref.)—*USAF AMRL.*

8338. Kasten, Duane F. Human performance in a simulated short orbital transfer. *USAF AMRL tech. docum. Rep.*, 1962, No. 62-138. v, 39 p.—Human performance was measured in a simulated short-range, coplanar orbital rendezvous task. Orbital conditions and vehicle dynamics were programmed on an analog computer. 2 systems of vehicle control and 1 system of information display were investigated. Performance criteria included impact velocity, fuel consumption, and transfer time required. Comparisons were made between control systems and between initial conditions. Ss' performance was better with an orthogonal-axes, thrust-control system than with a pitch attitude and 1-axis thrust-control system. The simulated direct-vision target display was found to be marginally acceptable. Suggestions about control systems and rendezvous techniques are included in the report.—*USAF AMRL.*

8339. Kennedy, J. E., & Landesman, J. (U. Wisconsin) Series effects in motor performance studies. *J. appl. Psychol.*, 1963, 47(3), 202-205.—It was hypothesized that a series effect would operate in a study designed to determine the optimal work surface height for the performance of a simple motor task. Under Condition A, Ss performed the task at each of 6 work surface heights, comprising the lower $\frac{2}{3}$ of the range of heights used in an earlier study. Under Condition B, Ss performed at 6 heights comprising the upper $\frac{2}{3}$ of the range. Systematic differences were observed in the performance of the 2 groups at the 4 heights they had in common. The differences in motor performance were attributed to a series effect stemming from differences in judgments Ss made concerning what the optimal height should be.—*Journal abstract.*

8340. Kerr, Willard A., & Keil, Rudolph C. (Illinois Inst. Technology, Chicago) A theory and factory experiment on the time-drag concept of boredom. *J. appl. Psychol.*, 1963, 47(1), 7-9.—47 (81%) of 53 personnel of a small plant guessed how much and in which direction the "erroneous" (but actually correct) company clocks were in error, in order to test hypothesis that, contrary to popular notion, time drag is estimated as greater in the variety-type than in the repetitive-type jobs. Significant correlations ($p < .05$) of time drag with variety-type (.43) rather than monotony-type, and with long-cycle (.27) rather than short-cycle jobs resulted. Time drag actually was greater in variety-type and in long-cycle jobs. The hypothesis that unbroken visual space seems tenable.—*Journal abstract.*

8341. Kulwicksi, Philip V., Schlei, Edward J., & Vergamini, Paul L. Weightless man: Self-rotation techniques. *USAF AMRL tech. docum. Rep.*, 1962, No. 62-129. iv, 40 p.—To be an effective weightless worker, an individual must be able to achieve and maintain a stable attitude with respect to his vehicle. If the worker is to have this capability, he must be able to control both translation and rotation. Translation may not be controlled without hardware, whereas rotation may. The purpose of this study was to investigate the possibility of body rotation by limb manipulation. This self-rotation is analyzed by the application of theoretical mechanics to a rigid mathematical model composed of 6 cylindrical segments. A quantitative evaluation, based on the

mathematical model, is made for one maneuver to determine the expected degree of rotation. As a result of this analysis, a series of selected maneuvers are proposed to give man the capability for rotation about 3 mutually perpendicular axes. The 9 maneuvers are intended to provide an effective rotation, while reducing undesirable coupled rotations. In addition, the stability of rotation of various geometrical shapes is investigated to determine if man can expect a self-rotation maneuver to be stable.—*USAF AMRL*.

8342. Lewis, John W. A partial review of the literature on physiological disorders resulting from the operation of motor vehicles. *USA ordn. Hum. Engng. Lab. tech. Memo.*, 1962, No. 17-62. v, 18 p.—A review of available literature on physiological difficulties arising from riding and driving automotive vehicles is presented. Findings indicate that a number of physical complaints show causes arising from the shocks and vibrations transmitted to the operator as a result of inadequate consideration of seating and suspension. (21 ref.)—*USA OHEL*.

8343. Maier, Norman R. F., & Hoffman, L. Richard. (U. Michigan) Seniority in work groups: A right or an honor? *J. appl. Psychol.*, 1963, 47(3), 173-176.—In the New Truck Problem, a role playing case, George, the senior man, receives the truck most often. What happens when he is absent? George received the new truck in 48.5% of 103 student groups who role-played the standard case, but in 73.2% of the 41 groups where he was absent (p difference $< .01$). Bill, the next most senior man, received the truck significantly ($p < .01$) less often when George was absent and was not compensated with George's truck. Nevertheless, Bill was not more often dissatisfied. Seniority may be an honor, not a right, and not readily claimable by the senior man. Also group members are often willing to sacrifice personal gain for the group's benefit.—*Journal abstract*.

8344. Micheli, F. Alcune considerazioni sul problema dell'affaticamento nel lavoro intellettuale con particolare riferimento all'attività del dirigente. [Some considerations on the problem of fatigue in intellectual work with special reference to the activity of the executive.] *Difesa soc.*, 1961, 40 (4), 85-97.—Intellectual fatigue is related to status conflict and to the various roles of the executive in his relationship to the complex managerial hierarchy.—*L. L'Abate*.

8345. York, C. (American Inst. Research) Behavioral efficiency in a visual monitoring task as a function of signal rate and observer age. *Percept. mot. Skills*, 1962, 15(2), 404.—The analyses of variance indicate for this particular sample and performance demand that an increase in either signal frequency or in age of the monitoring individual does not produce significant performance variation. Although a downward trend was observed in the course of time in the detection task, the vigilance decrement was not greater than that attributable to random sampling error. If one adheres to the expectancy hypothesis, O ability to estimate regular intervals—even if at various signal rates—was precluded by the use of irregular intersignal intervals. But, the lack of significant differences among age groups in a vigilance task seems to be more a function of an

insensitive task for the institutionalized population.—*W. H. Guertin*.

Motivation, Attitudes, Traits

8346. Ando, Mitsuo. A comparative study on conceptual differences between the Japanese and American workers: An analysis of attitudes and complaints. *Tohoku psychol. Folia*, 1962-63, 21 (1-2-3), 55-82.—Several questionnaires were administered to American and Japanese workers. The latter showed more uncertain responses; more unfavorable attitudes toward management; no differences in "relations with fellow employees," "security," and "identification with company"; more concern about future prospects with the company; more complaints on wages, hours, welfare, and benefits. Japanese grievances against labor unions were also greater, primarily due to the shorter existence of union organization in Japan. Despite this, "I really feel part of this organization" was higher and seems a contradiction which must be further explored.—*G. Rubin-Rabson*.

8347. Kuhlen, Raymond G. (Syracuse U.) Needs, perceived need satisfaction opportunities and satisfaction with occupation. *J. appl. Psychol.*, 1963, 47(1), 56-64.—If major motives are satisfied in the context of work and career, then satisfaction with occupation should be a function of the discrepancy between personal needs and perceived potential of occupation for satisfying needs, particularly among those for whom occupation constitutes a major source of satisfaction (e.g., men rather than women), and in the instance of occupationally relevant needs, such as need achievement. The Edwards Personal Preference Schedule, a special rating scale, and a questionnaire were administered to 108 men and 95 women teachers. As predicted, discrepancy scores correlated .25 ($p < .01$) with occupational satisfaction for men, and .02 (ns) for women. Achievement need discrepancies were consistently related to occupational satisfaction. Other findings confirmed that occupation is psychologically more central for men.—*Journal abstract*.

8348. Meltzer, H. (Washington U., St. Louis) Age differences in status and happiness of workers. *Geriatrics*, 1962, 17(12), 831-838.—A group of 141 workers in an industrial setting were asked to rank order 5 spans of years in terms of the best years of life for themselves and then how they thought others would rank them. The years most preferred were in the span 20-35 for self and up to 20 for others. Unfavorable years begin at 45.—*D. T. Herman*.

8349. Ronan, W. W. (Mesta Machine Co.) Work group attributes and grievance activity. *J. appl. Psychol.*, 1963, 47(1), 38-41.—5 hypotheses concerning the relation of grievance submission to nature and setting of work activity were tested. The hypotheses were that a particular plant has no effect on grievance submission, number of grievances submitted has no relation to nature of work, number of grievances "won" has no relation to nature of work, grievance goals do not vary by nature of work, rate of grievance submission is not related to nature of work. Results showed grievance submission does vary by plant and certain work groups won more grievances. The other 3 hypotheses were not supported. However, an overall tabulation of grievance activity makes all results somewhat tenuous.—*Journal abstract*.

MANAGEMENT & ORGANIZATION

8350. Carp, Frances M., Vitola, Bart M., & McLanathan, Frank L. (Trinity U.) Human relations knowledge and social distance set in supervisors. *J. appl. Psychol.*, 1963, 47(1), 78-80.—Postal supervisors' knowledge of human relations as measured by an adapted Air Force test and their perceptual set for social distance as measured by Fiedler's ASo Scale correlated significantly with productivity of subordinates as measured by the United States Postal Department Work Production Standard averaged over the period of 1 year. Effective leaders knew proper human relations practices and their perceptual set enabled them to maintain optimal psychological distance from subordinates, neither so close that they were hampered by emotional ties nor so distant that they lost emotional contact. Results suggest that selection of Postal Department supervisors would be improved by eliminating candidates whose scores fall beyond 1 sigma from the mean on the social distance scale; and from those remaining, taking the number required with the highest relations knowledge scores.—*Journal abstract.*

8351. Eaton, M. T. (U. Nebraska) Executive stresses do exist, but they can be controlled. *Personnel*, 1963, 40(2), 8-18.—Stresses inherent in the executive job and personality are discussed. Suggestions are offered for coping with them.—V. S. Sexton.

8352. Goodstein, Leonard D., & Schrader, William J. (U. Iowa) An empirically-derived managerial key for the California Psychological Inventory. *J. appl. Psychol.*, 1963, 47(1), 42-45.—Chi square comparisons of the responses of 603 managers and supervisors with those of 1748 men-in-general indicated that 206 of the 480 California Psychological Inventory (CPI) items reliably ($p < .01$) differentiated the 2 groups. All of the managerial and men-in-general CPI protocols were then scored using these 206 items as a Managerial key. This key not only reliably differentiated the total managerial group from the men-in-general group but also differentiated personnel at 3 different levels of management: top management, middle management, and first-line supervision (all p 's $< .01$). This CPI Managerial scale also significantly correlated ($r = .233$) with ratings of success within the total management group and within the top and middle management subgroups (r 's = .254 and .267, respectively). These results were compared with results of other recent personnel research and the implications discussed.—*Journal abstract.*

8353. Hoffman, F. O. (Marquardt Corp., Van Nuys, Calif.) The all-purpose manager: Does he exist? *Personnel*, 1963, 40(1), 8-16.—The proponents of "professional management" argue that a good manager can handle any managerial job. Practicing managers often resist this argument. The author claims that both are right because they are talking about 2 different things. If understanding is to be achieved, both groups must recognize where the confusion has arisen. The theorists must admit that the skills requisite for managing a particular field of work are shaped by specialized training and experience and hence are rarely interchangeable. On the other hand, practicing managers must realize that

all managerial jobs have a common denominator: the responsibility for seeing to it that the organizational machinery through which the work gets done runs and continues to run at peak efficiency.—V. S. Sexton.

8354. Kushner, A. People and computers. *Personnel*, 1963, 40(1), 27-34.—When management explores the feasibility of switching to electronic data processing, "people problems" emerge. The success of conversion to such processing often depends more on the human reactions than on the equipment itself. The author presents a step-by-step guide that should help solve the major "people problems" occasioned by computer installation.—V. S. Sexton.

8355. McConkey, Dale D. (United Fruit Co., Boston, Mass.) Measuring managers by results. *Personnel J.*, 1962, 41(11), 540-546.—The usual performance appraisal or merit rating reports are of little value in judging managers' performance because of lack of criteria for judging. In some managerial jobs, the managers can be evaluated by the profits or by the costs. In other managerial jobs, such as staff jobs, specific objectives should be set to be reached in certain time limits so that the managers can be judged by their actual performance in reaching the objectives. Interim evaluations are useful in determining progress, revising objectives and eliminating unsatisfactory managers.—M. B. Mitchell.

8356. Porter, Lyman W. (U. California, Berkeley) Job attitudes in management: II. Perceived importance of needs as a function of job level. *J. appl. Psychol.*, 1963, 47(2), 141-148.—By means of a questionnaire, 1916 managers indicated the degree of importance they attached to 13 items representing 5 areas of psychological needs. Respondents represented all levels of management and many different types of companies. The 5 need areas were Security, Social, Esteem, Autonomy, and Self-Actualization. Results showed that there was some relationship between vertical level of position within management and degree of perceived importance of needs. Higher-level managers placed relatively more emphasis on Self-Actualization and Autonomy needs than did lower-level managers. For each of the other 3 types of needs, however, there were no differences between responses from higher-level vs. lower-level managers. The findings from this study were compared with those from recent related studies.—*Journal abstract.*

8357. Prien, Erich P. (Western Reserve U.) Development of a supervisor position description questionnaire. *J. appl. Psychol.*, 1963, 47(1), 10-14.—A study of the job duties of factory foremen. A Supervisor Position Description Questionnaire (SPDQ) was developed and administered to 24 factory foremen and the corresponding supervising executives. An inverse interbattery factor analysis was performed. 7 factors were obtained and titled: Manufacturing Process Supervision; Manufacturing Process Administration; Employee Supervision; Manpower Coordination and Administration; Employee Contact and Communication; Work Organization, Planning, and Preparation; and Union Management Relations. A 2nd factor analysis of SPDQ scores yielded 2 factors titled: Manufacturing Operations Management and Administration, and Manpower Management and Utilization. The factors are

compared to those obtained by Hemphill (1961) and to the results of leadership studies.—*Journal abstract.*

ENGINEERING PSYCHOLOGY

8358. Edwards, Ward. Probabilistic information processing in command and control systems. *USAF ESD tech. docum. Rep.*, 1963, No. 62-345. 34 p.—This report discusses the diagnostic function in command and control systems. It presents Bayes's theorem of probability and examines its role in the design of command and control systems that process fallible information probabilistically. After summarizing existing relevant experimentation, the report points out major unsolved technical problems and outlines a program of research for solving some of them. Central to such a program is an examination of the feasibility and performance characteristics of such systems in a context which, while still experimental and abstract, is more realistic than that of the usual psychological experiment. The report examines characteristics of such a semi-realistic context. It lists substantive questions to be studied in this experimental setting. Finally, it specifies the resources required for these experiments and for the broader research program.—*USAF ESD.*

8359. Jordan, Nehemiah. (Rand Corp.) Allocation of functions between man and machines in automated systems. *J. appl. Psychol.*, 1963, 47(3), 161-165.—With the growing complexity of the man-machine systems the problem of allocation becomes more critical. Little progress has been made towards its solution since the publication of Fitts' article in 1951 which has dominated thinking in this area. Fitts recommended that man be compared to machines and be chosen for those functions which he does better than machines and vice versa. To do so is wrong; when we can compare a man to a machine, we find that we can also build a machine for the function involved. Hence the lack of progress. Men and machines are complementary, rather than comparable. Once the problem is so reformulated, new ways of thinking which appear to be promising open up.—*Journal abstract.*

8360. Leplat, Jacques. Dispersion des signaux et niveau de vigilance. [Dispersion of signals and level of vigilance.] *Annee psychol.*, 1962, 62(1), 17-28.—Printed letters were exposed at a given speed. Detection frequency increased with the distance of the signal perceived immediately beforehand when intersignal intervals were regular. When the intersignal intervals were varied, the average vigilance was slightly lower and interindividual variability was slightly greater.—*G. Rubin-Rabson.*

8361. Poulton, E. C. (Medical Research Council Applied Psychology Research Unit, Cambridge, England) Peripheral vision, refractoriness and eye movements in fast oral reading. *Brit. J. Psychol.*, 1962, 53(4), 409-419.—Naval ratings read typescript aloud through a window whose speed and size varied systematically in different trials. Eye movements were recorded electrically. Errors increased significantly as the window was reduced from a full line to 5 words, probably as a result of the tighter pacing and reduced peripheral vision. Regressions were unaffected. This is a serious criticism of reading films using windows to "improve" the reading of adults. Errors rose steeply to 40% as the time for

which letters were exposed fell from 0.3 to 0.2 sec.; fixations did not increase in frequency. Thus in reading the visual system behaves like a single-shot camera firing at not more than about 5 times per second. (18 ref.)—*Journal abstract.*

8362. Winick, Charles. (NYC) Preference for individual digits. *J. gen. Psychol.*, 1962, 67(2), 271-281.—A tally was made of the individual digits recorded on rolls of paper in an adding machine left on the sidewalk on a busy New York City street, on the assumption that passersby who hit numbers on the machine would be indicating a pure number choice by the numbers they selected. The numbers selected, on the basis of 55,375 recorded digits, were 1, 2, 4, 3, 5, 0, 9, 6, 7, 8, in order of their frequency. Their distribution was fairly close to normal. The numbers which were relatively more popular than their expected place in the linear scale of numbers would make possible (0, 4, 9), may have been especially popular because of the operation of the principles of closure and outstandingness. These results differ radically from Yule's analysis of final digits selected in interpolations, in which zero was the preferred number and the other numbers were all within \pm one standard deviation from the mean.—*Author abstract.*

Displays

8363. Baker, James D., & Whitehurst, Albert J. (USAF Electronic Systems Division, Bedford, Mass.) A comparison of two logic symbol coding techniques. *J. engng. Psychol.*, 1963, 2, 22-31.—"One technique [using 40 Ss] employed Shape encoding to differentiate basic logic functions; the other used Alphabetic identifiers. The findings showed that using Shape encoded symbols in simulated detailed logic diagrams resulted in a significant reduction in the time required to solve maintenance problems."—*D. C. Hodge.*

8364. Gibbs, C. B. (Defence Research Medical Lab., Toronto, Canada) Methodology of gain studies in man-machine systems. *Psychol. Bull.*, 1963, 60(2), 147-151.—There are considerable difficulties in communicating data concerning the output/input amplitude relations of man-machine systems, and many arise from a lack of agreement on terminology and methods of measurement. The many different terms in use are compared for their clarity and convenience. The uniform use of the term "gain" is recommended; and the terms control gain, display gain, and system gain are defined and distinguished. Linear measures are generally used in studies of gain, but radial measures are superior for describing optimal limb movements for controlling machines. (19 ref.)—*Journal abstract.*

8365. Hawkes, Glenn R. (FAA Civil Aeromedical Research Inst., Oklahoma City) Absolute identifications of cutaneous stimuli varying in both intensity level and duration. *FAA Civil Aeromed. Res. Inst. Rep.*, 1962, No. 62-16. 6 p.—Groups of naive and experienced Ss made absolute identifications of electrical cutaneous stimuli during 10 test sessions. Sessions consisted of various stimulus combinations of duration and "stridence" (subjective intensity). Experienced Ss transmitted significantly more information (I_t) than naive Ss when sessions contained an unequal number of durations and stridence levels.

No group differences appeared when the number of durations and stridence levels was equal, and both groups performed better when sessions were duration-weighted rather than stridence-weighted. Maximum I_t was obtained with 4×4 duration-stridence combinations. Results are compared with data obtained with unidimensional stimuli.—*W. E. Collins.*

8366. Mackworth, Jane F. (Defence Research Medical Lab., Toronto, Canada) Effect of reference marks on the detection of signals on a clock face. *J. appl. Psychol.*, 1963, 47(3), 196-201.—42 female Ss were employed in each of 3 studies undertaken to determine the effect of white marks on a black clock face on the detection of signals, consisting of brief pauses of the clock hand. The signals were presented at intervals ranging from 5-14 sec.; 0-30 marks were used. The addition of 1 mark reduced the percentage of missed signals to half that of the blank face ($p < .01$). Least signals were missed when they were near the white mark. Conclusions are the detection of a brief pause in a clock hand is improved by the addition of reference marks and there is a rapid decrease in detection of frequent signals as the run continues.—*Journal abstract.*

8367. Robinson, John E., Jr., & Cook, Kenneth G. (Applied Psychology Corp., Arlington, Va.) A flight simulator test of an altitude-coded aircraft light. *J. engng. Psychol.*, 1963, 2, 15-21.—6 pilots made judgments of relative altitude and vertical flight path of a simulated target aircraft using a modified F-100/151 flight simulator and aerial gunnery trainer. Ss were tested with pre-arranged problems involving 3 rates of altitude change and a number of collision courses and vertical misses. Accuracy of determining the vertical flight path was better with an altitude-coded light, using dot-dash signals, than with an uncoded light having a fixed-frequency flash rate. Altitude coding also yielded more accurate judgments of target relative altitude. For both lights, faster rates of altitude change yielded less accurate judgments of relative altitude, and more accurate judgments of the vertical flight path.—*D. C. Hodge.*

8368. Severin, Francis T., & Rigby, Marilyn K. (St. Louis U.) Influence of digit grouping on memory for telephone numbers. *J. appl. Psychol.*, 1963, 47(2), 117-119.—4 distinct patterns of 60 7-digit numbers were compared for accuracy of dialing by 96 college students. The patterns consisted of the following number of digits separated by hyphens: 3-4, 1-3-3, 2-2-3, and 1-2-2-2. A memory drum was used for presentation of the digits and a telephone for dialing. The tapes for the memory drums contained 4 lists of the same digits, the lists differing in the pattern for each set of digits and in the sequence of the patterns. Data analyzed in a $4 \times 4 \times 4$ design for repeated measurement showed the 3-4 pattern, the pattern in current usage, to be superior to the others ($p < .01$).—*Journal abstract.*

8369. Weiss, Robert. (Lear Siegler, Inc., Grand Rapids, Mich.) Display systems for sub- and zero-gravity flight. *USAF AMRL tech. docum. Rep.*, 1963, No. 63-11. x, 54 p.—A study was performed of the controls and pilot displays used to fly a C-131B and KC-135 aircraft in a Keplerian trajectory to create zero-gravity conditions. Evaluation criteria for this maneuver were proposed and applied to 2 basic instrumentation systems which were de-

veloped. An analog simulation was formulated and these results will be used to further improve the systems. Recommendations are made for improved instrumentation which should enable consistent flights of 10 sec. at zero-gravity plus or minus 0.005 g. (26 ref.)—*USAF AMRL.*

Controls

8370. Newman, Klaus M. (USN Electronics Lab., San Diego) Information entry efficiency on two experimental binary coded keysets. *J. engng. Psychol.*, 1963, 2, 32-43.—5 Ss were tested for speed and accuracy of information entry on 2 binary-coded decimal keysets. It was concluded that: "(a) Both qualitative and quantitative data of a 29-bit word could be entered accurately and rapidly using a 4-key binary-coded decimal keyboard; (b) keyset design had a direct bearing on the speed for error trade-off by operators; (c) encoding tasks, if kept fairly simple, could be carried out by experienced operators as part of information entry without detriment to the over-all process; and (d) patterned key pressing by the 'touch' system could be used successfully . . . by trained operators."—*D. C. Hodge.*

8371. Warrick, M. J., & Turner, Lester. Simultaneous activation of bimanual controls. *USAF AMRL tech. docum. Rep.*, 1963, No. 63-6. iii, 11 p.—The time interval between the release of a right-hand key and a lefthand key, when Ss were attempting to release them simultaneously, was measured to 0.1 millisecond. The mean interval of 20 Ss, 60 trials per S without knowledge of results, was very close to zero (simultaneous). Approximately 94% of the intervals were within ± 20 millisecond of zero. The implications of the findings to the control of a personal space-propulsion unit are discussed.—*USAF AMRL.*

SIGNS & LEGIBILITY

8372. Krylov, A. A. (Leningrad, USSR) Vliyanie velichiny melkikh delenii na chitaemost' shkal strelnochnykh kontrol'no-izmeritel'nykh priborov. [Effect of the size of small divisions on the readability of the dials of measurement control devices.] *Dokl. Akad. Pedag. Nauk RSFSR*, 1962, No. 3, 95-97.—5 trained Ss were asked to read round dials of 5 different sizes while their RT was recorded. It was found that the readability of the dials is a function of the angle of small divisions. The angle was measured from the line S—center of the dial—which was 1 m.—*A. Cuk.*

DRIVING, ACCIDENTS, SAFETY

8373. Barmack, Joseph E. Methodological problems in the design of motor vehicle accident research. *Amer. J. publ. Hlth.*, 1962, 52(11), 1866-1871.—The author discusses some of the methodological difficulties in the study of motor vehicle accidents. While the study of this problem has aspects which resemble those that have led to control of other diseases, a number of aspects are different. The need for direct evidence of the events preceding the trauma is stressed, as well as for the technology to obtain such data.—*Journal abstract.*

8374. Cobliner, W. Godfrey, & Shatin, Leo. (Seton Hall Medical Coll.) An adaptational per-

spective on the traffic accident. *Traf. Saf. res. Rev.*, 1962, 6(4), 13-15.—This is a new theoretical approach to the problem of traffic accident causation. It presents a model of psychological forces and counterforces which govern driving behavior. The psychological forces are balanced under normal circumstances. However, when the driver passes through a critical life period the former equilibrium is upset. This greatly increases the likelihood for an accident.—*Author abstract.*

8375. Smart, R. G., & Schmidt, W. S. (Alcohol & Drug Addiction Research Found., Toronto, Canada) Psychosomatic disorders and traffic accidents. *J. psychosom. Res.*, 1962, 6(3), 191-197.—Of 271 male hospitalized gastric or duodenal ulcer patients 136 had drivers' licenses during the 3½ years studied. The ulcer patients had significantly more accidents per capita than did the general driving population.—*W. G. Shipman.*

8376. Thorndike, Robert L. The human factor in accidents with special reference to aircraft accidents. Washington, D. C.: United States Department Health, Education, & Welfare, Public Health Service, 1962. viii, 175 p.—This is a reprint of a report originally published in 1951. The following conclusions are drawn: "(a) . . . systematic safety programs have led to reductions in accident rates. (b) Much of the literature on accident-proneness must be discounted because of inadequacies in the data or the procedures of analysis. . . (c) Many predictors, including measures of sensory, motor, intellectual, and personality qualities, have been studied in relation to accident records, and some have been found to show a slight relationship. . . (d) There is little satisfactory evidence as to the effect upon aircraft accident rate of any specific programs of training, retraining, or safety education." 9 recommendations are made for future research on aircraft accidents. (209 ref.)—*W. Coleman.*

ADVERTISING & CONSUMER PSYCHOLOGY

8377. Lucas, Darrell Blaine, & Britt, Steuart Henderson. (New York U.) Audience accumulation and combinations. Part I. *Media/scope*, 1962, 6(10), 42-45.—Both the research objectives for evaluating advertising media and the techniques for achieving those objectives have become essentially psychological. This 1st of 2 articles describes the quantitative objectives and terminology as well as the research solutions of methodology for measuring combined audiences of leading magazines and television programs.—*Author abstract.*

8378. Lucas, Darrell Blaine, & Britt, Steuart Henderson. (New York U.) Audience accumulation and combinations. Part II. *Media/scope*, 1962, 6(11), 42-45.—This 2nd of 2 articles continues the discussion of psychological concepts for quantitative evaluation of advertising media—namely, the measurement of total reach, duplication, accumulated and combined reach—together with the theory of design of psychologically sound measuring methods. This is followed by recommendations on how and when to use such data.—*Author abstract.*

8379. Lucas, Darrell Blaine, & Britt, Steuart Henderson. (New York U.) What's wrong with ad research? *Printers Ink*, 1962, 280(10), 48-50.—Because of problems in forming a concept as well as inadequacies of measurement, existing qualitative media research constitutes a highly controversial area. Indirect approaches and objective approaches may help in the measurement of audience attitudes.—*Author abstract.*

8380. Salunke, D. K., McLaughlin, R. L., Day, Sandra L., & Merkley, Margaret B. (Utah State U.) Preparation and quality evaluation of processed fruits and fruit products with sucrose and synthetic sweeteners. *Food Technol.*, 1963, 17(1), 85-91.—Cherries, apricots, and peaches were prepared with varying amounts of sucrose or with sucrose in various combinations with calcium cyclamate and sodium saccharin. Products were served at regular meals by 50 families and judged as acceptable or unacceptable by 117 family members, and rated on a like-dislike scale by a trained laboratory panel of 10 members. Percent acceptable correlated +.70 with panel results. Products with moderate levels of sucrose or with low sucrose plus low levels of synthetic sweeteners were best liked. When sucrose concentration was increased, products were too sweet. Higher concentrations of synthetic sweeteners caused a bitter aftertaste.—*D. R. Peryam.*

8381. Szczesniak, Alina Surmacka, & Kleyn, Dick H. (General Foods Corp., Tarrytown, N. Y.) Consumer awareness of texture and other food attributes. *Food Technol.*, 1963, 17(1), 74-77.—100 Ss each gave 3-word associations to the names of 74 common foods. Menu-used responses were most frequent (38.3%) followed by food-attribute responses (23.7%), including texture (7.6%), flavor (6.3%), and color (3.8%). Foods which elicited the highest number of texture responses were either bland in flavor or were crunchy or crispy. Most Ss' texture vocabularies were limited. Terms denoting different degrees of hardness, cohesiveness, and moisture content were mentioned most often.—*D. R. Peryam.*

BRIEF SUBJECT INDEX

This index supplements, but does not duplicate, the classification of abstracts given in the Table of Contents. It is assumed that the reader will have scanned whatever categories of classification interest him and that he will use this index only for cross references or for subjects that are more specific than the general categories of the classification. When many numbers are encountered under a heading, the reader may simplify his task by matching the numbers found under the two or more headings that specify his particular interest.

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Psychological Abstracts

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The number of journals regularly searched by *Psychological Abstracts* now totals 537. Coverage categories are indicated by type face: **bold-faced** journals are received and assigned to abstracters by the editorial office; light-faced journals are searched by the abstracter. The notation "Journal abstract" indicates reproduction of the abstracts which appear in the original publication; "Author abstracts" are submitted by the individual authors especially for publication in *Psychological Abstracts* and do not appear in the original publication. In those cases where no abstracter is indicated, the journal is temporarily unassigned.

- Acta Academiae Paedagogicae Jyväskyläensis.** Now: *Jyväskylä Studies in Education, Psychology and Social Research and Studia Historica Jyväskyläensis.*
- Acta Biologiae Experimentalis.** (*Acta Biol. exp., Warsaw*) (Church, R. M.)
- Acta Chromatica.** (*Acta chrom., Japan*) (Journal abstracts)
- Acta Geneticae Medicae et Gemellologiae.** (*Acta genet. med. gemellolog., Rome*) (Journal abstracts)
- Acta Neurologica et Psychiatrica Belgica.** (*Acta neurol. psychiat. Belg.*) (Sanua, V. D.)
- Acta Neurologica Scandinavica.** (*Acta neurol. Scand., Copenhagen*) (Kaelbling, R.)
- Acta Neuropsychiatria Argentina.** Now: *Acta Psiquiátrica y Psicológica Argentina.*
- Acta Ophthalmologica.** (*Acta ophthal., Copenhagen*) (Katz, M. S.)
- Acta Oto-laryngologica.** (*Acta oto-laryngol., Stockholm*) (Loeb, M.)
- Acta Paedopsychiatrica.** (*Acta paedopsychiat., Basel*) (Rubin-Rabson, G.)
- Acta Pharmacologica et Toxicologica.** (*Acta pharmacol. toxicol., Copenhagen*)
- Acta Psiquiátrica y Psicológica Argentina.** (*Acta psiquiat. psicol. Argent.*) (Meissner, W. W.) Formerly: *Acta Neuropsychiatria Argentina.*
- Acta Psychiatrica Scandinavica.** (*Acta psychiat. Scand., Copenhagen*) (Kaelbling, R.)
- Acta Psychologica.** (*Acta psychol., Amsterdam*) (Rubin-Rabson, G.)
- Acta Psychologica Sinica.** (*Acta psychol. Sinica*) (Journal abstracts)
- Acta Psychotherapeutica et Psychosomatica.** (*Acta psychother. psychosom., Basel*) (Rubin-Rabson, G.)
- Acta Universitatis Carolinae, Philosophica et Historica.** (*Acta U. Carolinae phil. hist.*) (Bruml, H.)
- Activitas Nervosa Superior.** (*Activ. nerv. super., Prague*) (Břicháček, V.)
- Administrative Science Quarterly.** (*Admin. Sci. Quart.*) (Sexton, V. S.)
- Advanced Management-Office Executive.** (*Advanc. Mgmt.-Off. Exec.*) (Miller, E. Q.)
- Advertising Age.** (*Adv. Age*) (Twedt, D. W.)
- Aerospace Medicine.** (*Aerosp. Med.*) (Loring, J. C. G.)
- Alberta Journal of Educational Research.** (*Alberta J. educ. Res.*)
- American Annals of the Deaf.** (*Amer. Ann. Deaf*) (Newland, T. E.)
- American Anthropologist.** (*Amer. Anthropologist*) (Sulzer, R. L.)
- American Behavioral Scientist.** (*Amer. behav. Scientist*)
- American Imago.** (*Amer. Imago*)
- American Journal of Clinical Hypnosis.** (*Amer. J. clin. Hypn.*) (Kline, M. V.)
- American Journal of Clinical Nutrition.** (*Amer. J. clin. Nutr.*) (Millon, T.)
- American Journal of Diseases of Children.** (*Amer. J. Dis. Children*) (Warren, A. B.)
- American Journal of Human Genetics.** (*Amer. J. hum. Genet.*) (Vandenberg, S. G.)
- American Journal of Mental Deficiency.** (*Amer. J. ment. Defic.*) (Sexton, V. S.)
- American Journal of Occupational Therapy.** (*Amer. J. occup. Ther.*) (Seidenfeld, M. A.)
- American Journal of Ophthalmology.** (*Amer. J. Ophthal.*) (Shaad, D. J.)
- American Journal of Optometry & Archives of the American Academy of Optometry.** (*Amer. J. Optom.*) (Heinemann, E. G.)
- American Journal of Orthopsychiatry.** (*Amer. J. Orthopsychiat.*) (Perl, R. E.)
- American Journal of Physical Medicine.** (*Amer. J. phys. Med.*) (Schubert, H. J. P.)
- American Journal of Physiology.** (*Amer. J. Physiol.*) (Peryam, D. R.)
- American Journal of Psychiatry.** (*Amer. J. Psychiat.*) (Pronko, N. H.)
- American Journal of Psychoanalysis.** (*Amer. J. Psychoanal.*) (Prager, D.)
- American Journal of Psychology.** (*Amer. J. Psychol.*) (Nance, R. D.)
- American Journal of Psychotherapy.** (*Amer. J. Psychother.*)
- American Journal of Sociology.** (*Amer. J. Sociol.*) (Journal abstracts)
- American Psychologist.** (*Amer. Psychologist*) (Lachman, S. J.)
- American Scholar.** (*Amer. Scholar*) (Russell, J. W.)
- American School Board Journal.** (*Amer. sch. Bd. J.*) (Amatora, S. M.)
- American Scientist.** (*Amer. Scientist*)
- American Sociological Review.** (*Amer. sociol. Rev.*) (Berkowitz, L.)
- Animal Behavior.** (*Anim. Behav.*) (Coppock, W. J.)
- Annales Médico-psychologiques.** (*Ann. med.-psychol.*) (De Palma, N.)
- Annals of Human Genetics.** (*Ann. hum. Genet.*) (Vandenberg, S. G.)
- Annals of the New York Academy of Sciences.** (*Ann. N. Y. Acad. Sci.*) (Aaronson, B. S.)
- Annals of Otolaryngology and Laryngology.** (*Ann. Otol. Rhinol. Laryngol.*) (Vernon, J. A.)
- Annals of Psychotherapy.** (*Ann. Psychother.*) (Glasner, S. Z.)
- Année Psychologique.** (*Annee psychol.*) (Rubin-Rabson, G.)
- Annual of Animal Psychology.** (*Annu. anim. Psychol., Tokyo*) (Ohwaki, S.)

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- Annual Review of Physiology. (*Annu. Rev. Physiol.*) (Wayner, M. J., Jr.)
- Annual Review of Psychology. (*Annu. Rev. Psychol.*)
- Applied Psychological Services. Publications. (Federman, P.)
- Archiv für die gesamte Psychologie. (*Arch. ges. Psychol.*) (Hartman, K. J.)
- Archives of Criminal Psychodynamics. (*Arch. crim. Psychodyn.*) (Eglash, A.)
- Archives of Disease in Childhood. (*Arch. Dis. Childh.*) (Warren, A. B.)
- Archives of General Psychiatry. (*Arch. gen. Psychiat.*) (Brandt, L. W.)
- Archives Internationales de Pharmacodynamie et de Therapie. (*Arch. int. Pharmacodyn. Ther.*)
- Archives Italiennes de Biologie. (*Arch. Ital. Biol.*) (Cantoni, L. J.)
- Archives of Neurology. (*Arch. Neurol., Chicago*)
- Archives of Ophthalmology. (*Arch. Ophthal., Chicago*) (Sulzer, R.)
- Archives de Psychologie. (*Arch. Psychol., Geneva*) (Triandis, H. C.)
- Archivio di Psicologia, Neurologia e Psichiatria. (*Arch. Psicol. Neurol. Psychiat.*) (L'Abate, L.)
- Arhiv za Higijenu Rada i Toksikologiju. (*Arh. Hig. rada Toksikol.*) (Bujas, Z.)
- Arquivos Brasileiros de Psicoterapia. (*Arqu. Brasil. Psicoter.*)
- Arquivos da Clinica Pinel. (*Arqu. Clin. Pinel*)
- ASHA: A Journal of the American Speech and Hearing Association. (*ASHA*) (Palmer, M. F.)
- Audiovisual Communication Review. (*Audiovis. Commun. Rev.*) (Schutz, R. E.)
- Australian Journal of Psychology. (*Aust. J. Psychol.*) (Barclay, A.)
- Behavioral Science. (*Behav. Sci.*) (Arbit, J.)
- Behaviour. (*Behaviour, Leiden*) (Ginsburg, N. M.)
- Beihefte zur Schweizerischen Zeitschrift für Psychologie und ihre Anwendungen. (*Beih. Schweiz. Z. Psychol. Anwend.*)
- Bell System Technical Journal. (*Bell Sys. tech. J.*) (Small, A. M., Jr.)
- BINOP: Bulletin de l'Institut National d'Étude du Travail et d'Orientation Professionnelle. (*BINOP*)
- Biofizika. (*Biofizika*) (London, I. D.)
- Biometrics. (*Biometrics*) (McCormack, R. L.)
- Boletim do Instituto de Psicologia. (*Bol. Inst. Psicol., Rio de Janeiro*)
- Boletín del Instituto Interamericano del Niño. (*Bol. Inst. Interamer. Nino*) (Braun, J. S.)
- Bollettino di Psicologia Applicata. (*Boll. Psicol. appl.*) (Kaplan, R.)
- Brain: A Journal of Neurology. (*Brain*) (Simmel, M. L.)
- British Journal of Criminology. (*Brit. J. Criminol.*) (Argyropoulos, M.)
- British Journal of Educational Psychology. (*Brit. J. educ. Psychol.*) (Jensen, B. T.)
- British Journal of Medical Psychology. (*Brit. J. med. Psychol.*) (Winder, C. L.)
- British Journal for the Philosophy of Science. (*Brit. J. Phil. Sci.*) (Lichtenstein, P. E.)
- British Journal of Psychiatry. (*Brit. J. Psychiat.*) (Wilkins, W. L.) Formerly: *Journal of Mental Science*.
- British Journal of Psychology. (*Brit. J. Psychol.*) (Journal abstracts)
- British Journal of Psychology Monograph Supplements. (*Brit. J. Psychol. monogr. Suppl.*) (Franks, C. M.)
- British Journal of Social and Clinical Psychology. (*Brit. J. soc. clin. Psychol.*) (Franks, C. M.)
- British Journal of Sociology. (*Brit. J. Sociol.*) (Carter, J.)
- British Journal of Statistical Psychology. (*Brit. J. statist. Psychol.*) (Earl, N.)
- Bulletin of Art Therapy. (*Bull. art Ther.*) (Raskin, N. J.)
- Bulletin of the British Psychological Society. (*Bull. Brit. Psychol. Soc.*)
- Bulletin du Centre d'Études et Recherches Psychotechniques. (*Bull. Cent. Etud. Rech. Psychotech.*) (Sanua, V. D.)
- Bulletin du Groupement Français du Rorschach. Now: *Bulletin de la Société Française du Rorschach et des Méthodes Projectives*.
- Bulletin of the Institute of Child Study. (*Bull. Inst. Child Stud., Toronto*) (Appley, D. G.)
- Bulletin of the Los Angeles Neurological Society. (*Bull. Los Angeles Neurol. Soc.*) (Mensch, I. N.)
- Bulletin of the Maritime Psychological Association. (*Bull. Maritime Psychol. Ass.*) (Page, C. W.)
- Bulletin of the Menninger Clinic. (*Bull. Menninger Clin.*)
- Bulletin d'Orientation Scolaire et Professionnelle. Now: *Bulletin de Psychologie Scolaire et d'Orientation*.
- Bulletin de Psychologie. (*Bull. Psychol., Paris*) (Blake, L.)
- Bulletin de Psychologie Scolaire et d'Orientation. (*Bull. Psychol. scol. Orient.*) (Piret, R.) Formerly: *Bulletin d'Orientation Scolaire et Professionnelle*.
- Bulletin of the School of Education, Indiana University. (*Bull. Sch. Educ. Ind. U.*) (Schutz, R. E.)
- Bulletin of the Seishin-Igaku Institute. (*Bull. Seishin-Igaku Inst.*) (Ohwaki, S.)
- Bulletin de la Société Française du Rorschach et des Méthodes Projectives. (*Bull. Soc. Franc. Rorschach Meth. Proj.*) (Marzolf, S. S.) Formerly: *Bulletin du Groupement Français du Rorschach*.
- Bulletin of the World Health Organization. (*Bull. WHO*) (Franklin, J. C.)
- California Journal of Educational Research. (*Calif. J. educ. Res.*) (Newland, T. E.)
- Canadian Journal of Psychology. (*Canad. J. Psychol.*) (Davidon, R.)
- Canadian Psychiatric Association Journal. (*Canad. Psychiat. Ass. J.*) (Sterne, S. B.)
- Canadian Psychologist. (*Canad. Psychologist*) (McCormack, P. D.)
- Cancer. (*Cancer*) (Waxenberg, S. E.)
- Catholic Counselor. (*Cath. Counselor*) (Severin, F. T.)
- Catholic Educator. (*Cath. Educator*) (Amatora, S. M.)
- Catholic Psychological Record. (*Cath. psychol. Rec.*) (Wilkins, W. L.)
- Center for Safety Education, New York University. Publications. (Gaza, C. T.)
- Cerebral Palsy Review. (*Cerebral Palsy Rev.*) (Newland, T. E.)
- Československá Psychiatrie. (*Ceskoslov. Psychiat.*) (Břicháček, V.)
- Československá Psychologie. (*Ceskoslov. Psychol.*) (Břicháček, V.)
- Character Potential: A Record of Research. (*Charact. Potential*) (Penrod, W. T.)
- Child Development. (*Child Developm.*) (Meyer, W. J.)
- Children. (*Children*) (Laycock, F.)
- Ciencia. (*Ciencia, Mexico*) (Brozek, J. M.)
- Cleft Palate Bulletin. (*Cleft Palate Bull.*) (Drexler, A. B.)
- College Board Review. (*Coll. Bd. Rev.*) (Allen, R. F.)
- Comprehensive Psychiatry. (*Comprehen. Psychiat.*) (Prager, D.)
- Confinia Neurologica. (*Confin. neurol., Basel*) (Simmel, M. L.)
- Confinia Psychiatrica. (*Confin. psychiat., Basel*) (Eng, E. W.)
- Cooperative Research Monographs. (*Coop. Res. Monogr.*) (Bower, E. M.)
- Corrective Psychiatry and Journal of Social Therapy. (*Correct. Psychiat. J. soc. Ther.*) (Witt, L. R.) Formerly: *Journal of Social Therapy: Corrective Psychiatry*.

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- Counseling. (Counseling)
 Criança Portuguesa. (Crianca Portug.)
- Daedalus. (Daedalus) (Davis, K. E.)
 Darsamka Traimāsika. (Darsamka Traimasika) (Pareek, U. N.)
- Defence Research Medical Laboratories Report. (Def. Res. Med. Lab. Rep., Toronto) (Fozard, J. L.)
- Developmental Medicine and Child Neurology. (Development. Med. child Neurol.) (Newland, T. E.)
- Diagnostica. (Diagnostica, Gottingen) (Hardesty, F. P.)
- Difesa Sociale. (Difesa soc.) (L'Abate, L.)
- Dissertation Abstracts. (Dissert. Abstr.) (Bibliographic citations)
- Doklady Akademii Nauk SSSR. (Dokl. Akad. Nauk SSSR) (Pick, H.)
- Doklady Akademii Pedagogicheskikh Nauk RSFSR. (Dokl. Akad. Pedag. Nauk RSFSR) (Cuk, A.)
- Doshkolnoe Vospitanie. (Doshk. Vosp.) (London, I. D.)
- Education. (Education, Indianapolis) (Amatora, S. M.)
- Education and Psychology Review. (Educ. Psychol. Rev., Baroda) (Pareek, U. N.)
- Education Quarterly. (Educ. Quart., New Delhi) (Hunt, J. T.)
- Educational and Psychological Measurement. (Educ. psychol. Measmt.) (Coleman, W.)
- Educational Record. (Educ. Rec.) (Meissner, W. W.)
- Educational Records Bulletin. (Educ. Rec. Bull.) (Gee, H. H.)
- Educational Research. (Educ. Res.) (Leedy, P. D.)
- Educational Theory. (Educ. Theory) (Kuenzli, A. E.)
- Electroencephalography and Clinical Neurophysiology. (EEG clin. Neurophysiol., Amsterdam) (Johnson, L. C.)
- Elementary School Journal. (Elem. Sch. J.) (Page, E. B.)
- Encéphale. (Encephale) (Meissner, W. W.)
- Endeavour. (Endeavour) (Spro, A. J.)
- Enfance. (Enfance) (Marzolf, S. S.)
- Ergonomics. (Ergonomics) (Jensen, B. T.)
- ETC.: A Review of General Semantics. (Etc.) (Wagner, R. F.)
- Eugenics Quarterly. (Eugen. Quart.) (Vandenberg, S. G.)
- Eugenics Review. (Eugen. Rev.) (Thompson, G. G.)
- Evolution Psychiatrique. (Evolut. psychiat.) (Ostlund, L. A.)
- Exceptional Children. (Except. Children) (Elias, J. Z.)
- Farmakologiya i Toksikologiya. (Farmakol. Toksikol.) (English summaries)
- Federal Aviation Agency Civil Aeromedical Research Institute Reports. (FAA Civ. Aeromed. Res. Inst. Rep.) (Collins, W. E.)
- Federal Probation. (Fed. Probation) (Deming, R. W.)
- Fiziologicheskii Zhurnal SSSR. (Fiziol. Zh. SSSR) (McDonald, D.)
- Folia Psychiatrica et Neurologica Japonica. (Folia psychiat. neurol. Jap.) (Wilson, W. A., Jr.)
- Food Technology. (Food Technol.) (Peryam, D. R.)
- Gawein. (Gawein) (Ter Keurst, A. J.)
- Genetic Psychology Monographs. (Genet. Psychol. Monogr.) (Author abstracts)
- Geriatrics. (Geriatrics) (Herman, D. T.)
- Gerontologia. (Gerontologia, Basel) (Shatin, L.)
- Gerontologist. (Gerontologist) (Arnhoff, F. N.)
- Gifted Child Quarterly. (Gifted Child Quart.) (Chansky, N. M.)
- Group Psychotherapy. (Group Psychother.) (Kidorf, I. W.)
- Hahinukh. (Hahinukh) (Ormian, H.)
- Harefuah. (Harefuah) (Ormian, H.)
- Harvard Business Review. (Harv. bus. Rev.) (Youngberg, C. F.)
- Harvard Educational Review. (Harv. educ. Rev.) (Franks, C. M.)
- Heilpädagogische Werkblätter. (Heilpädagog. Werkbl.) (Mindlin, D. F.)
- Heritage of Industrial Psychology. (Heritage industr. Psychol.)
- Hommes et Techniques. (Hommes Tech.) (Schutz, R. E.)
- Human Biology. (Hum. Biol.) (Swartz, P.)
- Human Factors. (Hum. Factors) (Muckler, F. A.)
- Human Relations. (Hum. Relat.) (Meissner, W. W.)
- Human Resources Research Office Consulting Report. (HumRRO consult. Rep.) (Tyson, R.)
- Human Resources Research Office Research Bulletin. (HumRRO res. Bull.) (Tyson, R.)
- Human Resources Research Office Research Memorandum. (HumRRO res. Memo.) (Tyson, R.)
- Human Resources Research Office Research Report. (HumRRO res. Rep.) (Tyson, R.)
- Human Resources Research Office Technical Report. (HumRRO tech. Rep.) (Tyson, R.)
- Humanist. (Humanist, Yellow Springs) (Kuenzli, A. E.)
- Hygiène Mentale. (Hyg. ment.) (Meissner, W. W.)
- IBM Journal of Research and Development. (IBM J. Res. Developm.) (Uttal, W. R.)
- Indian Journal of Psychology. (Indian J. Psychol.) (Cowles, J. T.)
- Indian Journal of Social Work. (Indian J. soc. Wk.) (Schaefer, R. A.)
- Indian Psychological Bulletin. (Indian psychol. Bull.) (Cowles, J. T.)
- Industrial Relations. (Industr. Relat., Berkeley) (Cornog, J. R.)
- Industrial Relations. (Industr. Relat., Calcutta) (Crawford, P. L.)
- Infanzia Anormale. (Infanz. anorm.) (Ferracuti, F.)
- Information Psychologique. (Inform. psychol.) (Piret, R.)
- International Journal of Clinical and Experimental Hypnosis. (Int. J. clin. exp. Hypn.) (Moss, C. S.)
- International Journal for the Education of the Blind. (Int. J. Educ. Blind) (Nolan, C. Y.)
- International Journal of Group Psychotherapy. (Int. J. group Psychother.)
- International Journal of Parapsychology. (Int. J. Parapsychol.) (Freeman, J. A.)
- International Journal of Psycho-Analysis. (Int. J. Psycho-Anal.) (Elias, G.)
- International Journal of Social Psychiatry. (Int. J. soc. Psychiat.) (Orzech, D.)
- International Social Science Journal. (Int. soc. Sci. J.) (Barclay, A.)
- Israel Annals of Psychiatry and Related Disciplines. (Israel Ann. Psychiat. relat. Discipl.)
- Izvestiya Akademii Pedagogicheskikh Nauk RSFSR. (Izv. Akad. Pedag. Nauk RSFSR) (London, I. D.)
- Jahrbuch für Psychologie, Psychotherapie und medizinische Anthropologie. (Jb. Psychol. Psychother. med. Anthropol.) (Bieliauskas, V. J.)
- Japanese Journal of Child Psychiatry. (Jap. J. child Psychiat.) (Tamai, S.)
- Japanese Journal of Educational Psychology. (Jap. J. educ. Psychol.) (Ohwald, S.)
- Japanese Journal of Psychology. (Jap. J. Psychol.) (Barclay, A.)
- Japanese Psychological Research. (Jap. psychol. Res.) (Iwahara, S.)
- Jewish Education. (Jewish Educ.) (Sanua, V. D.)
- Jewish Journal of Sociology. (Jewish J. Sociol.) (Glasner, S. Z.)
- Jewish Social Studies. (Jewish soc. Stud.) (Glasner, S. Z.)
- Journal of Abnormal and Social Psychology. (J. abnorm. soc. Psychol.) (Journal abstracts)

LIST OF JOURNALS REGULARLY SEARCHED

- Journal of the Acoustical Society of America. (*J. Acoust. Soc. Amer.*) (Small, A. M., Jr.)
- Journal of Advertising Research. (*J. adv. Res.*) (Perloff, R.)
- Journal of Aesthetics and Art Criticism. (*J. Aesthet. art Crit.*) (Farnsworth, P. R.)
- Journal of Agricultural and Food Chemistry. (*J. agr. food Chem.*) (Peryam, D. R.)
- Journal of the American Academy of Child Psychiatry. (*J. Amer. Acad. Child Psychiat.*) (Barclay, A.)
- Journal of the American Dietetic Association. (*J. Amer. Diet. Ass.*) (Millon, T.)
- Journal of the American Musicological Society. (*J. Amer. Musicol. Soc.*) (Higbee, D. S.)
- Journal of the American Optometric Association. (*J. Amer. Optom. Ass.*) (Westheimer, G.)
- Journal of the American Psychoanalytic Association. (*J. Amer. Psychoanal. Ass.*) (Prager, D.)
- Journal of the American Society of Psychosomatic Dentistry and Medicine. (*J. Amer. Soc. Psychosom. Dent. Med.*) (Manhold, J. H., Jr.)
- Journal of Analytical Psychology. (*J. anal. Psychol.*) (Santora, D. A.)
- Journal of Applied Physiology. (*J. appl. Physiol.*) (Peryam, D. R.)
- Journal of Applied Psychology. (*J. appl. Psychol.*) (Journal abstracts)
- Journal of Auditory Research. (*J. aud. Res.*) (Ver-non, J. A.)
- Journal of Child Psychology and Psychiatry. (*J. child Psychol. Psychiat.*) (Reisman, J. M.)
- Journal of Chronic Diseases. (*J. chron. Dis.*) (Laties, V. G.)
- Journal of Client-Centered Counseling. (*J. client-cent. Counsel.*) (York, C. M.)
- Journal of Clinical and Experimental Psychopathology & Quarterly Review of Psychiatry and Neurology. (*J. clin. exp. Psychopathol.*)
- Journal of Clinical Psychology. (*J. clin. Psychol.*) (Bieliauskas, V. J., & Kronenberger, E. J.)
- Journal of Communication. (*J. Commun.*) (Meister, D. E.)
- Journal of Comparative and Physiological Psychology. (*J. comp. physiol. Psychol.*) (Journal abstracts)
- Journal of Conflict Resolution. (*J. conflict Resolut.*) (Lodge, G. T.)
- Journal of Consulting Psychology. (*J. consult. Psy-chol.*) (Journal abstracts)
- Journal of Correctional Work. (*J. correct. Wh., Luck-now*) (Pareek, U. N.)
- Journal of Counseling Psychology. (*J. counsel. Psy-chol.*) (Oetting, E. R.)
- Journal of Criminal Law, Criminology, and Police Science. (*J. crim. Law Criminol. police Sci.*) (Eglash, A.)
- Journal of Developmental Reading. (*J. develpm. Read.*) (Reed, J. C.)
- Journal of Education and Psychology. (*J. Educ. Psy-chol., Baroda*) (Lebo, D.)
- Journal of Educational Psychology. (*J. educ. Psychol.*) (Journal abstracts)
- Journal of Educational Research. (*J. educ. Res.*) (Hunt, J. T.)
- Journal of Educational Sociology. (*J. educ. Sociol.*) (Moore, H. K.)
- Journal of Engineering Education. (*J. engng. Educ.*) (Lane, B. B.)
- Journal of Engineering Psychology. (*J. engng. Psychol.*) (Hodge, D. C.)
- Journal of Existential Psychiatry. (*J. existent. Psy-chiat.*) (Curran, C. A.)
- Journal of the Experimental Analysis of Behavior. (*J. exp. Anal. Behav.*) (Arbit, J.)
- Journal of Experimental Education. (*J. exp. Educ.*) (Page, E. B.)
- Journal of Experimental Psychology. (*J. exp. Psy-chol.*) (Journal abstracts)
- Journal of Food Science. (*J. food Sci.*) (Peryam, D. R.)
- Journal of the Franklin Institute. (*J. Franklin Inst.*)
- Journal of General Physiology. (*J. gen. Physiol.*) (Peryam, D. R.)
- Journal of General Psychology. (*J. gen. Psychol.*) (Author abstracts)
- Journal of Genetic Psychology. (*J. genet. Psychol.*) (Author abstracts)
- Journal of Gerontology. (*J. Gerontol.*) (Botwinick, J.)
- Journal of Health and Human Behavior. (*J. Hlth. hum. Behav.*) (Ostlund, L. A.)
- Journal of Heredity. (*J. Hered.*) (Phillips, M.)
- Journal of the Hillside Hospital. (*J. Hillside Hosp.*) (Kenyon, G. Y.)
- Journal of Human Relations. (*J. hum. Relat.*)
- Journal of Humanistic Psychology. (*J. humanist. Psychol.*)
- Journal of Individual Psychology. (*J. indiv. Psychol.*) (Howard, A. R.)
- Journal of Industrial Psychology. (*J. industr. Psychol.*) (Youngberg, C. F.)
- Journal of Industrial Relations. (*J. industr. Relat.*)
- Journal of Jewish Communal Service. (*J. Jewish com-munal Serv.*) (Seidenfeld, M. A.)
- Journal of the Maharajah Sayajirao University of Baroda. (*J. Maharajah Sayajirao U. Baroda*) (Pareek, U. N.)
- Journal of Mammalogy. (*J. Mammal.*) (Kenshalo, D. R.)
- Journal of Marketing. (*J. Market.*) (Crawford, P. L.)
- Journal of Medical Education. (*J. med. Educ.*)
- Journal of Mental Deficiency Research. (*J. ment. Defic. Res.*) (Barclay, A.)
- Journal of Mental Health. (*J. ment. Hlth., Chiba*) (Tamai, S.)
- Journal of Mental Science. Now: *British Journal of Psychiatry.*
- Journal of Mental Subnormality. (*J. ment. Subnorm.*) (Barclay, A.)
- Journal of Negro Education. (*J. Negro Educ.*) (Wil-liams, R. K.)
- Journal of Nervous and Mental Disease. (*J. nerv. ment. Dis.*) (Pronko, N. H.)
- Journal of Neurology, Neurosurgery, and Psychiatry. (*J. Neurol. Neurosurg. Psychiat.*) (Simmel, M. L.)
- Journal of Neuropsychology. (*J. Neuropsychiol.*) (West-heimer, G.)
- Journal of the Optical Society of America. (*J. Opt. Soc. Amer.*) (Journal abstracts)
- Journal of Parapsychology. (*J. Parapsychol.*) (Pratt, J. G.)
- Journal of Pastoral Care. (*J. pastoral Care*) (Strunk, O., Jr.)
- Journal of Personality. (*J. Pers.*) (Lodge, G. T.)
- Journal of Pharmacology and Experimental Therapeutics. (*J. Pharmacol. exp. Ther.*)
- Journal de Physiologie. (*J. Physiol., Paris*) (Smith, C. J.)
- Journal of Physiology. (*J. Physiol., London*) (Peryam, D. R.)
- Journal of Programed Instruction. (*J. programed In-struct.*) (Journal abstracts)
- Journal of Projective Techniques and Personality As-sessment. (*J. proj. Tech. pers. Assess.*) (Green-wald, A. F.)
- Journal of Psychiatric Research. (*J. psychiat. Res.*) (Barber, W. H.)
- Journal of Psychological Researches. (*J. psychol. Res., Madras*) (Pareek, U. N.)
- Journal of Psychological Studies. (*J. psychol. Stud.*) (Mayzner, M. S.)
- Journal de Psychologie Normale et Pathologique. (*J. Psychol. norm. pathol.*) (Simmel, M. L.)
- Journal of Psychology. (*J. Psychol.*) (Author ab-stracts)
- Journal of Psychosomatic Research. (*J. psychosom. Res.*) (Shipman, W. G.)

LIST OF JOURNALS REGULARLY SEARCHED

- Journal of Rehabilitation.** (*J. Rehabil.*) (Seidenfeld, M. A.)
- Journal of Research in Music Education.** (*J. Res. music Educ.*) (Higbee, D. S.)
- Journal of the Scientific Laboratories of Denison University.** (*J. Scient. Lab. Denison U.*) (Mountjoy, P. T.)
- Journal for the Scientific Study of Religion.** (*J. scient. Stud. Relig.*) (Strunk, O., Jr.)
- Journal of Social Issues.** (*J. soc. Issues*) (Journal abstracts)
- Journal of Social Psychology.** (*J. soc. Psychol.*) (Author abstracts)
- Journal for Social Research.** (*J. soc. Res., Pretoria*) (De Palma, N.)
- Journal of Social Therapy: Corrective Psychiatry.** Now: *Corrective Psychiatry and Journal of Social Therapy.*
- Journal of the Society of Motion Picture and TV Engineers.** (*J. Soc. Motion Pict. TV Engineers*) (Sulzer, R. L.)
- Journal of the Society for Psychical Research.** (*J. Soc. Psych. Res.*) (Jacobsen, O. I.)
- Journal of Speech and Hearing Disorders.** (*J. speech hear. Disord.*) (Palmer, M. F.)
- Journal of Speech and Hearing Disorders Monograph Supplements.** (*J. speech hear. Disord. monogr. Suppl.*) (Palmer, M. F.)
- Journal of Speech and Hearing Research.** (*J. speech hear. Res.*) (Palmer, M. F.)
- Journal of Teacher Education.** (*J. teacher Educ.*) (Bower, E. M.)
- Journal of Verbal Learning and Verbal Behavior.** (*J. verbal Learn. verbal Behav.*) (Horowitz, A. E.)
- Journal of Vocational and Educational Guidance.** (*J. voc. educ. Guid., Bombay*) (Barnette, W. L., Jr.)
- Journalism Quarterly.** (*Journalism Quart.*) (Meister, D. E.)
- Jyväskylä Studies in Education, Psychology and Social Research.** (*Jyväskylä Stud. Educ. Psychol. soc. Res.*) Formerly: *Acta Academiæ Paedagogicæ Jyväskyläensis.*
- Kölner Zeitschrift für Soziologie und Sozialpsychologie.** (*Kol. Z. Soziol. Soz.-psychol.*) (Wagner, R. F.)
- Language and Speech.** (*Lang. Speech*) (Horowitz, A. E.)
- Life Sciences.** (*Life Sci.*) (Coslett, S. B.)
- Literature and Psychology.** (*Lit. Psychol.*) (Fraiberg, L.)
- Magyar Pszichológiai Szemle.** (*Magyar pszichol. Szle.*) (Friedman, E.)
- Main Currents in Modern Thought.** (*Main Curr. mod. Thought*) (Royce, J. R.)
- Management Review.** (*Mgmt. Rev.*) (Kubany, A. J.)
- Mankind Quarterly.** (*Mankind Quart.*) (Franklin, J. C.)
- Marriage and Family Living.** (*Marriage fam. Liv.*)
- Media/scope.** (*Media/scope*) (Perloff, R.)
- Medical World.** (*Med. World, London*) (Cooksley, F.)
- Megamot.** (*Megamot*) (Ormian, H.)
- Menninger Quarterly.** (*Menninger Quart.*)
- Mens en Onderneming.** (*Mens Onderneming*) (Lücker, J.)
- Mensch und Arbeit.** (*Mensch Arbeit*) (Hartman, K. J.)
- Mental Health.** (*Ment. Hlth., London*)
- Mental Hospitals.** (*Ment. Hosp.*) (Gurel, L.)
- Mental Hygiene.** (*Ment. Hyg., N. Y.*) (Lewin, M. H.)
- Mental Retardation.** (*Ment. Retard.*) (Gibson, D.)
- Merrill-Palmer Quarterly.** (*Merrill-Palmer Quart.*) (Robinson, E. L.)
- Michigan State University Business Topics.** (*Mich. State U. bus. Topics*) (Estep, M. F.)
- Military Medicine.** (*Milit. Med.*) (Blake, L.)
- Monographs of the Society for Research in Child Development.** (*Monogr. Soc. Res. Child Developm.*) (Barclay, A.)
- Musical Quarterly.** (*Musical Quart.*) (Higbee, D. S.)
- Nachal'noya Shkola.** (*Nach. Shk.*) (London, I. D.)
- National Academy of Sciences-National Research Council. Disaster Studies.** (Lawner, R.)
- National Academy of Sciences-National Research Council. Publications.** (Walters, S. A.)
- National Education Research Bulletin.** (*Nat. Educ. res. Bull.*) (Ahmann, J. S.)
- Nature.** (*Nature, London*)
- NEA Journal: Journal of the National Education Association.** (*NEA J.*) (Weintraub, I. G.)
- Nederlandsch Tijdschrift voor de Psychologie en Haar Grensgebieden.** (*Ned. Tijdschr. Psychol. Grensgeb.*)
- Neurology.** (*Neurology*) (Gunter, R.)
- New Dimensions in Higher Education.** (*New Dimens. higher Educ.*) (Bower, E. M.)
- New Mexico Society for the Study of Education Educational Research Bulletin.** (*N. Mex. Soc. Stud. Educ. educ. res. Bull.*) (Cooper, J. C.)
- New Outlook for the Blind.** (*New Outlook Blind*) (Nolan, C. Y.)
- New York State Education.** (*N. Y. State Educ.*) (Summers, L. D.)
- Noise Control.** Now: *Sound: Its Uses and Control.*
- Nordisk Psykologi.** (*Nord. Psykol.*) (Goldberger, L.)
- Norsk Pedagogisk Tidsskrift.** (*Norsk pedagog. Tidsskr.*) (Goldberger, L.)
- Notiziario de "La Ricerca Scientifica."** (*Notiz. Ric. scient.*) (Vigliano, A.)
- Nursing Outlook.** (*Nurs. Outlook*) (Dilworth, A. S.)
- Occupational Psychology.** (*Occup. Psychol.*) (Spencer, G. M.)
- Ofakim.** (*Ofakim*) (Ormian, H.)
- Ontario Journal of Educational Research.** (*Ontario J. educ. Res.*) (Chansky, N. M.)
- Operations Research.** (*Operat. Res.*) (Marks, M. R.)
- Ophthalmologica.** (*Ophthalmologica, Basel*)
- Orientamenti Pedagogici.** (*Orientamenti pedagog.*) (Kopanic, R.)
- Pacific Sociological Review.** (*Pacif. sociol. Rev.*) (Davis, K. E.)
- Papers of the Michigan Academy of Science, Arts, and Letters.** (*Pap. Mich. Acad. Sci. Arts Lett.*) (Lachman, S. J.)
- Pastoral Psychology.** (*Pastoral Psychol.*) (Wesley, F.)
- Peabody Journal of Education.** (*Peabody J. Educ.*) (Hall, W. E.)
- Pedagogia.** (*Pedagogia, Rio Piedras*) (Moran, R. E.)
- Pedagogisk Forskning: Nordisk Tidsskrift for Pædagogikk.** (*Pedag. Forsk.*) (Goldberger, L.)
- Pennsylvania Psychiatric Quarterly.** (*Pa. psychiat. Quart.*) (Long, L. C.)
- Perceptual and Motor Skills.** (*Percept. mot. Skills*) (Guertin, W. H.)
- Personnel.** (*Personnel*) (Sexton, V. S.)
- Personnel and Guidance Journal.** (*Personnel Guid. J.*) (Weintraub, I. G.)
- Personnel Journal.** (*Personnel J.*) (Mitchell, M. B.)
- Personnel Management.** (*Personnel Mgmt.*) (Howard, A. R.)
- Personnel Practice Bulletin.** (*Personnel Pract. Bull.*) (Walker, J. L.)
- Personnel Psychology.** (*Personnel Psychol.*) (Thompson, A. S.)
- Philips Research Reports.** (*Philips res. Rep., Eindhoven*)
- Philips Technical Review.** (*Philips tech. Rev., Eindhoven*)
- Philosophical Review.** (*Phil. Rev.*) (Ruja, H.)
- Philosophy of Science.** (*Phil. Sci.*) (Turner, M. B.)
- Physiologia Bohemoslovenica.** (*Physiol. Bohemoslov.*) (Journal abstracts)

- Praxis der Kinderpsychologie und Kinderpsychiatrie.** (*Prax. Kinderpsychol. Kinderpsychiat.*) (Katz, E.)
Praxis der Psychotherapie. (*Prax. Psychother.*) (Swartley, W.)
Printers' Ink. (*Printers Ink*) (Twedt, D. W.)
Proceedings of the American Philosophical Society. (*Proc. Amer. Phil. Soc.*) (Boring, E. G.)
Proceedings of the Indiana Academy of Sciences. (*Proc. Ind. Acad. Sci.*)
Proceedings of the West Virginia Academy of Science. (*Proc. W. Va. Acad. Sci.*) (Strunk, O., Jr.)
Psyché. (*Psyche, Paris*) (Hartman, K. J.)
Psyche. (*Psyche, Stuttgart*) (Eng, E. W.)
Psychiatric Quarterly. (*Psychiat. Quart.*) (Prager, D.)
Psychiatric Quarterly Supplement. (*Psychiat. Quart. Suppl.*) (Prager, D.)
Psychiatric Research Report. (*Psychiat. res. Rep.*) (Kaelbling, R.)
Psychiatrie de l'Enfant. (*Psychiat. Enfant*) (Naar, R.)
Psychiatrie, Neurologie und medizinische Psychologie. (*Psychiat. Neurol. med. Psychol., Leipzig*) (Kaelbling, R.)
Psychiatry. (*Psychiatry*) (Barclay, A.)
Psychoanalysis and the Psychoanalytic Review. Now: *Psychoanalytic Review.*
Psychoanalytic Quarterly. (*Psychoanal. Quart.*) (Elias, J. Z.)
Psychoanalytic Review. (*Psychoanal. Rev.*) (Prager, D.) Formerly: *Psychoanalysis and the Psychoanalytic Review.*
Psychologe: Monatsschrift für Psychologie und Lebensberatung. (*Psychologe*) (Naumann, T. F.)
Psychologia. (*Psychologia, Kyoto*) (Barclay, A.)
Psychologia Africana. (*Psychol. Afr.*) (Walker, J. L.)
Psychologia Wychowawcza. (*Psychol. wych.*) (Kaczowski, H. R.)
Psychological Bulletin. (*Psychol. Bull.*) (Journal abstracts)
Psychological Issues. (*Psychol. Issues*) (Prager, D.)
Psychological Monographs: General and Applied. (*Psychol. Monogr.*) (Journal abstracts)
Psychological Record. (*Psychol. Rec.*) (Journal abstracts)
Psychological Reports. (*Psychol. Rep.*) (Zeaman, B. H.)
Psychological Review. (*Psychol. Rev.*) (Journal abstracts)
Psychological Service Center Journal. (*Psychol. Serv. Cent. J.*) (Goldstein, F. J.)
Psychological Studies. (*Psychol. Stud., Mysore*) (Pareek, U. N.)
Psychologie Française. (*Psychol. Franc.*) (Adkins, C. J., Jr.)
Psychologie und Praxis. (*Psychol. u. Prax.*) (Roemich, H.)
Psychologische Beiträge. (*Psychol. Beitr.*) (Priester, H. J.)
Psychologische Forschung. (*Psychol. Forsch.*) (Eng, E. W.)
Psychologische Rundschau. (*Psychol. Rdsch.*) (Koppitz, W. J.)
Psychology of the Blind. (*Psychol. Blind, Tokyo*) (Ohwaki, S.)
Psychometrika. (*Psychometrika*) (Journal abstracts)
Psychopharmacologia. (*Psychopharmacologia, Berlin*)
Psychosomatic Medicine. (*Psychosom. Med.*) (Shipman, W. G.)
Pszichologiai Tanulmányok. (*Pszichol. Tanulmányok*) (Friedman, E.)
Public Opinion Quarterly. (*Publ. Opin. Quart.*) (Holander, E. P.)
Purdue Opinion Panel Poll Report. (*Purdue Opin. Panel Poll Rep.*) (Koppe, W. A.)
Quaderni di Criminologia Clinica. (*Quad. Criminol. clin.*) (Ferracuti, F.)
Quaderni di "La Ricerca Scientifica." (*Quad. Ric. scient.*) (Vigliano, A.)
Quarterly Journal of Experimental Psychology. (*Quart. J. exp. Psychol.*) (Journal abstracts)
Quarterly Journal of Speech. (*Quart. J. Speech*)
Quarterly Journal of Studies on Alcohol. (*Quart. J. Stud. Alcohol*) (Walton, D. E.)
Quarterly Review of Biology. (*Quart. Rev. Biol.*) (Havlena, J. M.)
Reading Teacher. (*Read. Teacher*)
Rehabilitation Literature. (*Rehabilit. Lit.*) (Kerr, W.)
Relações Humanas. (*Relac. hum.*)
Religious Education. (*Relig. Educ.*) (Walters, S. A.)
Research Bulletin, Institute of Education, University of Helsinki. (*Res. Bull. Inst. Educ. U. Helsinki*) (Leeds, D. S.)
Research Quarterly of the American Association for Health, Physical Education, and Recreation. (*Res. Quart. Amer. Ass. Hlth. Phys. Educ. Recr.*) (Journal abstracts)
Review of Educational Research. (*Rev. educ. Res.*) (Leedy, P.)
Review of Existential Psychology and Psychiatry. (*Rev. existent. Psychol. Psychiat.*)
Review of Scientific Instruments. (*Rev. scient. Instrum.*) (Burton, N. G.)
Revista Médica. (*Rev. med.*) (Corsini, R. J.)
Revista Mexicana de Sociología. (*Rev. Mex. Sociol.*) (Steinzor, L. V.)
Revista de Neuro-Psiquiatria. (*Rev. Neuro-Psiquiat.*)
Revista de Psicoanálisis. (*Rev. Psicoanal., Buenos Aires*)
Revista de Psicología. (*Rev. Psicol., Bogota*) (Page, E. B.)
Revista de Psicología. (*Rev. Psicol., Lima*) (Haas, M.)
Revista de Psicología General y Aplicada. (*Rev. Psicol. gen. apl.*) (Page, E. B.)
Revista de Psicología Normal e Patológica. (*Rev. Psicol. norm. patol.*)
Revista de Psihologie. (*Rev. Psihol.*)
Revue Belge de Psychologie et de Pédagogie. (*Rev. Belg. Psychol. Pedag.*) (Piret, R.)
Revue Canadienne de Biologie. (*Rev. Canad. Biol.*) (Wayner, M. J., Jr.)
Revue Française de Psychanalyse. (*Rev. Franc. Psychanal.*) (Rubin-Rabson, G.)
Revue Française de Sociologie. (*Rev. Franc. Sociol.*) (Lawson, E. D.)
Revue de Psychologie Appliquée. (*Rev. Psychol. appl.*) (White, E. G.)
Revue de Psychologie des Peuples. (*Rev. Psychol. Peuples*) (Gordon, N. B.)
Ricerca Scientifica, Parte I. (*Ric. scient., Pt. I*) (Vigliano, A.)
Ricerca Scientifica, Parte II-A. (*Ric. scient., Pt. II-A*) (Vigliano, A.)
Ricerca Scientifica, Parte II-B. (*Ric. scient., Pt. II-B*) (Vigliano, A.)
Rivista di Pedagogia e Scienze Religiose. (*Riv. Pedag. Sci. relig.*)
Rivista di Psicologia Sociale e Archivio Italiano di Psicologia Generale e del Lavoro. (*Rev. Psicol. soc.*) (L'Abate, L.)
Rural Sociology. (*Rural Sociol.*) (Moore, H. K.)
Samiksa: Journal of the Indian Psychoanalytical Society. (*Samiksa*) (Prager, D.)
Scandinavian Journal of Psychology. (*Scand. J. Psychol., Stockholm*) (Journal abstracts)
School and Society. (*Sch. Soc.*) (Wright, H. E.)
Schweizerische Zeitschrift für Psychologie und ihre Anwendungen. (*Schweiz. Z. Psychol. Anwend.*) (Science) (Journal abstracts)
Scientific American. (*Scient. American*) (Wise, L. M.)
Shiksha. (*Shiksha*) (Pareek, U. N.)
Smith College Studies in Social Work. (*Smith Coll. Stud. soc. Wk.*) (Elias, G.)
Social Casework. (*Soc. Casework.*)

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